

JULY 2024

Taronga Zoo Sky Safari

Appendix FF Operational Management Plan (OMP)

PREPARED BY

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PREPARED FOR

TARONGA 
CONSERVATION SOCIETY AUSTRALIA

For the Wild

Taronga Sky Safari

Operational Management Plan

1 Introduction

1.1 Purpose

This plan has been prepared by Taronga Conservation Society Australia (TCSA) to accompany a State Significant Development (SSD) Application for the redevelopment of the Sky Safari at Taronga Zoo, Mosman.

The report provides an overview of the operational management for the Taronga Sky Safari.

1.2 Site Description

Taronga Zoo is located at Bradleys Head Road, Mosman and is situated in the Mosman Local Government area (LGA) and on Cammeragal Country. The site is bounded by Bradleys Head Road to the east, Athol Wharf Road and Sydney Harbour to the south, Little Sirius Cove to the west and Whiting Beach Road to the north. Taronga Zoo is legally described as Lot 22 on DP843294 and is Crown Land managed by the TCSA (the Zoological Park Board). Taronga Zoo has been subject to numerous upgrades and redevelopment schemes over time, to stay compliant with contemporary regulations, meet contemporary animal welfare and contemporary visitor experience expectations.

Taronga Zoo has evolved over time from a Zoo that simply provides the traditional visitor experience of viewing animals in exhibits, to a Zoo that focusses on wildlife conservation, animal welfare and providing a range of visitor learning experiences. Taronga Zoo is one of Australia's most popular attractions, and together with Taronga Western Plains Zoo hosts more than 1.7 million visitors annually.

1.3 Description of Former Sky Safari Route

The Sky Safari was an ageing asset within the Zoo and was retired on 31 January 2023. The former Sky Safari route is a lineal route of 450 metres with each one-way journey taking approximately 4 minutes.

Access to the retired Sky Safari was open to all Zoo visitors generally between the hours of 9.30am – 4.15pm as well as on special occasions such as VIVID or to transport guest to conference facilities. The majority of trips were one way from the Lower Station near the Taronga Zoo Ferry Wharf as they entered the Zoo or from the Top Station near the Top Plaza (Main Entrance) as they exited the Zoo.

The former Sky Safari cable cars had a maximum capacity of six guests and could accommodate wheelchairs up to a width of 610mm but prams or wheelchairs which did not fold could not be transported given the size restraints. At times, the entire cableway would stop to a complete halt to allow wheelchairs, prams or guests that required assistance to enter or exit the cable cars safely, adding time to the journey for all passengers.

1.4 Description of Proposed Sky Safari

The proposed works include:

- Site establishment works including removal of the existing Sky Safari;
- Installation of a new 916m (loop) Sky Safari cable car system including:
 - Construction of six (6) new pylons and structures within the Zoo ranging in height between 4.3m (P1) to 36.5m (P5)
 - Construction of two new stations at both the upper and lower entrances within the Zoo grounds.
 - Public facilities including accessible queueing areas, ticket booths and public amenities.
 - Associated mechanical plant, servicing overnight storage areas and work bays for ongoing maintenance.
- Landscaping works, including new accessible pathways, planting, shade structures and seating areas and wayfinding signage.
- Excavation, site preparation works and tree removal/pruning to allow the works to occur.
- Increased hours of operation

The management of the Taronga Zoo (TZ) site includes both internal staff, suppliers and external contractors to manage the operations of the site. It is proposed a similar structure will be implemented for the Sky Safari, for example, waste collection and managing the operation of the cable car system.

1.5 Sky Safari proposed route.

The proposed enhanced Sky Safari will include a loop of 916m – travelling in a counterclockwise direction connecting the Lower station (Ferry Wharf) and Top station.

2 Guest Experience

Taronga Zoo is one of Australia's most popular attractions, and together with Taronga Western Plains Zoo hosts more than 1.8million visitors annually. The Zoo has evolved over time from a Zoo that simply provides the traditional visitor experience of viewing animals in exhibits, to a Zoo that focusses on wildlife conservation, animal welfare and providing a range of visitor learning experiences.

Within Taronga Zoo, the Sky Safari is one of Taronga's most loved experiences and has transported more than 20 million passengers since it was first installed in 1987 and upgraded in 2000. The former Sky Safari was an ageing asset and was formally retired in January 2023. The redevelopment of the existing Sky Safari will allow the Zoo to update the now obsolete infrastructure on site and provide new facilities which improve accessibility, ease increased demand and assist the public in moving around the Zoo.

Upgraded Experience

The reimagined cable car experience introduces approximately 20-25new cable cars that are accessible to visitors with prams and larger wheelchairs, to ensure all visitors to the zoo have a safe and dignified experience in utilising the Sky Safari. The new cable cars are also larger in capacity than the former cable cars to meet current and future visitor demand to visit the Zoo.

The infrastructure associated with the cable cars will incorporate approximately 6 pylon towers (previously 9 pylon towers with the retired Sky Safari) ranging in height from 4.3m to 36.5m. The route itself has been carefully located to minimise impact on remnant bushland, existing trees and the archaeological and built heritage as well as scenic values of the Zoo.

Overall, the route of the upgraded Sky Safari maintains the existing footprint of the Sky Safari, however, will require the cable car corridor to increase from 9m to 12.5m.

Cable Car Stations

A new station is proposed at each end of the new cable car route allowing for visitors to enter and exit at both the top and bottom of the Zoo site.

Top Station is proposed to replace the existing storage facility adjacent to the Main Entrance Plaza. The new station will provide Zoo guests with direct access to the Sky Safari via the existing Main Entrance plaza. The station provides covered queuing within the heritage building and associated landscaping and shading provided in the plaza space.

Lower Station is proposed to replace the existing lower station near the Taronga Ferry Wharf. The station aims to improve existing queuing on site by incorporating fully equitable queuing areas with shade and amenity in order to enhance the visitor's arrival experience. The Lower Station will have improved accessibility through the new ramping system up to the station which will make the station easily accessible for those in wheelchairs and with prams. In addition, level access into the station when re-queuing to use the cable car to go back to the Top Station, removing the existing stairs. A lift will also be provided to access the platform if required by guests. The station will also be supplemented with toilet amenities and a ticketing booth.

2.1 Guest Experience Objectives

The cable car will:

- Feature additional, larger cable cars that are more accessible, dramatically improving the guest experience journey for all visitors.
- Connect to recent upgrades underway to the Taronga Zoo Wharf under the NSW Government's Transport Access Program.
- Increase the Sky Safari's former capacity, allowing for a more seamless flow of guests around the Zoo, while also enhancing opportunities for educating guests on Taronga's

conservation efforts.

- Encourage guests off the roads and onto public transport as they explore the harbour on route to the Zoo.
- Provide unique, affordable, family-focused sightseeing tourism infrastructure that provides comfortable all-season experiences to support year-round growth in visitation to the Zoo. This will assist in securing the financial future of the Zoo to ensure that it can continue to undertake a range of conservation and education projects.
- Consider the heritage significance of local heritage items within the Zoo grounds and the strong historical presence of Taronga.
- Enhance opportunities for educating the community on TCSA's conservation efforts.

2.2 Guest Experience Packages

The proposed Sky Safari is intended to focus predominantly on being a mode of transport to help enhance accessibility across the Zoo whilst providing unique viewpoints of Sydney Harbour.

The Sky Safari will be included within the standard general admission price.

There will be flexibility to use the Sky Safari during out of hours and to support after hours events throughout the year. However it will be bundled in with the price of the relevant ticket (e.g Vivid, NYE, Accommodation packages).

3 Operational Management Plan

3.1 Additional Opening hours

The redevelopment of the existing Sky Safari will allow the Zoo to update the now obsolete infrastructure on site and provide new facilities which improve accessibility, ease increased demand, and assist the public in moving around the Zoo. It is proposed that the current operating hours would be reflected in the different session offerings.

The following hours are proposed as a 'maximum' for the site and to provide flexibility in the Zoo operating the cable car in future.

The Zoo is currently in operation 24/7. It is intended that the Sky Safari will continue to operate within the following indicative hours to activate the site and create a new immersive experience to educate visitors on the work of the TSCA. These hours fluctuate from time to time:

Indicative Sunrise & Early Morning Sessions

Daylight savings (AEDT): 6:00am to 9:30am

Non-daylight savings (AEST): 5:00am to 9:30am

Zoo Operating Period

9:30am to 5:00pm (September to April)

9:30am to 4:30pm (May to August)

Indicative Sunset & Twilight Sessions

Daylight savings (AEDT): 5:00pm to 9:00pm

Non-daylight savings (AEST): 5:00pm to 7:00pm

Indicative Special Events (ie. Vivid): 5:00pm to 12:00am

To meet safety standards, and comply with manufacturer specifications, commissioning, and maintenance will occur between 6:00pm – 6:00am.

Opportunities for special events would likely be around our high demand times, school and public holidays, Weekends etc. Other key operating periods may include Vivid, NYE, Twilight Concert Series, Cinemas or events held at the Function Centre with a mass gathering. The exact use of the Sky Safari for these events has not yet been determined however Taronga Zoo would like the flexibility to use in future.

3.2 Safety and security

The Taronga Zoo site has 24-hour security based at the Whiting Beach Road entrance (corner of Prince Albert Street). Security staff, access control and CCTV collectively provide for effective monitoring of the Taronga Zoo site and the security and safety of animals in our care, our staff, and our guests. The following arrangements will be in place to support the Taronga Sky Safari operations.

Security staff:

- must hold a Security License (1A1C);
- provide 24-hour coverage of the Taronga Zoo site based on rosters.
- monitor the Taronga access control system and attend specific locations in the event of intruder or fire alarms.

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- secure access points to the Taronga Zoo site at the end of each day.
- undertake the role of Chief Warden outside Taronga Zoo opening hours as part of which they are responsible for coordinating any afterhours emergencies.

Access Control:

- Access to the site outside Taronga Zoo opening hours is controlled by Taronga's access control system. Entry and exit are permitted at designated points only and monitored by Taronga's security staff (refer above). Access to buildings within the Taronga Zoo site is also monitored and restricted from 19:00 to 06:00 when alarms are activated unless manually overridden by security staff in the event facilities are being used.

Stations:

- Access to each station will be via a key provided by the supplier and held by TCSA security.
- Each station will be 'closed' in non-operational hours with secure roller doors in place to prevent unauthorized access.
- The station staff will have direct contact with security personnel if required.
- Station staff will be trained to handle any security breaches with regular training scheduled throughout the year.

CCTV:

- There are a number of CCTV cameras on the Taronga Zoo site. Camera placement and the use/distribution of footage is undertaken in accordance with the NSW legislative framework for surveillance. A register of CCTV cameras is maintained and available on the Taronga Zoo intranet.
- CCTV will be installed at all stations in multiple locations to allow for full surveillance.

Alarms:

- The stations will be alarmed.

3.3 Compliance with Laws, Regulations and Standards

Compliance with laws, regulations and standards is an operational requirement of Taronga Zoo (TCSA).

Functions within the Taronga Centre and in grounds catering are currently outsourced to an external caterer. Whilst Taronga will manage the Taronga Sky Safari, it is proposed catering and functions will continue to be outsourced.

The following outlines the current management practices and requirements that are in place for the site and are imposed on the caterer. The same requirements are proposed to be applied to the Taronga Sky Safari.

Liquor License and Serving

The TCSA Alcohol Policy outlines the requirements of TCSA's Liquor License, legal obligations and House Policies and procedures for service and consumption of alcohol for Taronga Zoo functions.

Responsible Service of Alcohol

TCSA strives to provide a safe and enjoyable atmosphere for all events, special occasions, and general visitation at TZ. The Taronga Zoo Alcohol Policy requires that:

- The Caterer must develop a House Policy for functions and alcohol service and submit it to TCSA for approval.
- All Staff who perform any task in relation to the service of alcoholic beverages must have current RSA Certification.
- The Caterer maintains a copy of the RSA Certification for all employees who have completed the course.

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- Staff adhere to the conditions of TZ Liquor License.
- Staff only serve alcohol within the licensed areas.
- Staff only allow patrons to purchase a maximum of four drinks on any one visit to the bar.
- The sale of spirits is limited to one 30ml measure per drink.
- Any patrons who display disruptive or offensive behavior should not be served alcohol and/or should be removed from TZ.
- Staff should organize taxis on behalf of patrons if requested.
- The Caterer should develop and implement an Incident Report to record all incidents occurring at any of the alcohol service points within TZ. Incident Reports should include name(s) of the person(s) causing the incident, physical description of the person(s) and the reason for their removal.

3.4 Ticketing

Tickets to Sky Safari will be included in the cost of their day general admission ticket.

Taronga Zoo is constantly reviewing its ticketing strategy in line with other attractions. Taronga Zoo has a planned review of the physical ticketing opportunities at both the top and bottom station, as part of this overall strategy.

Virtual tickets are now preferred by both TCSA and members of the public since COVID. Visitors will be encouraged to buy their Zoo tickets on the TZ digital app, online before they arrive at the Zoo or via QR codes. There will be a small discount to those who purchase tickets online or on the Zoo application (Currently this is up to 20%).

The Zoo is currently investigating validation of tickets at both the entrance and lower station. Turnstiles may be installed at the stations onboarding area that will assist with monitoring guest flow and if required validating tickets.

3.5 Queuing

10-minute wait time is anticipated to be the largest tolerable wait time to use the Sky Safari. This is expected to be achieved by having larger and more cabins, and the potential to have no round trips available (on mega peak days). The former Sky Safari had wait times of up to 20 minutes on weekdays, up to 45 minutes on weekends and up to 75 minutes during the Mega Peak period.

Peak times for the Sky Safari have been the first two hours and final hour of operation on standard visitation days, increasing to all-day in Mega-peak. In addition, queues are usually extensive after each Seal Presentation at 11am & 2pm (1pm during holidays), after each Birds Presentation (12 noon & 3pm) as well as between 2pm and 3pm as School Groups leave the grounds for their bus back to their school.

Queuing areas are to be undercover / shaded where possible and outside the Station to avoid congestion and safety issues.

Audio/Visual equipment to be installed and incorporated to assist and enhance queueing processes. One water station is required to be installed at each of the stations. Soft airport style barriers to be used to assist with directing guest flow.

3.6 Mega Peak

There is a 10–12-day visitation period between 27th December and the end of the first week of January deemed “Mega Peak” period by the Zoo. In this period the typical visitors in one day is around 8,000 to 12,000 visitors. A 10% increase of this amount is expected due to the new Sky Safari.

3.7 TCSA Events on Sky Safari

Sky Safari will not operate for all TCSA run events at Taronga.

Sky Safari will be available for a stand-alone or increased price during events. **Vivid** and the Twilight Concert Series are the main events at the Zoo where ticket holders will be able to utilize the Sky Safari out of regular operating hours. The Sky Safari is anticipated to operate until the final ferry departs as previous years unless Transport NSW agrees to extend its arrival/ departure times at the Taronga Zoo Wharf.

NYE at the Zoo will also see the Sky Safari be able to be used, however, will not be labelled as a “watch the fireworks” experience.

3.8 New Experiences on the Sky Safari

Sky Safari will be available for weddings and other specific private functions. This paid experience will be subject to the availability of resources, maintenance schedule and the times and size of the event. Taronga will look at bespoke experience on offer in the cable cars - both inside and outside zoo hours.

This experience would not be offered during regular operating hours, so would be offered predominantly after hours. TCSA has an alcohol license for service of alcohol across the entire Zoo and F&B provider will need sufficient training for this service.

3.9 Relationship with Retreat/ Roar and Snore

The Sky Safari will not be available for purchase in packages with the Wildlife Retreat or the Roar and Snore experiences as a method for getting around the Zoo during after hours. It will be offered free of charge to use during regular Zoo operating hours only.

3.10 Waste Management

TZ is a sensitive, eco-environment. TCSA is committed to ensuring that this environment is managed well so that it can be appreciated and visited for future generations. TZ has several policies which have been developed to protect our environment. (See *“Operational Waste management plan”* for more information). TCSA’s Waste Management Policy provides the framework for all TCSA staff and contractors to provide the effective and environmentally conscious waste management.

The Policy highlights TCSA’s commitment to the promotion of effective and environmentally conscious waste management.

Waste management of the Sky Safari will be in accordance with the Zoo’s current waste management operating procedures. The waste collection at Taronga Zoo is contracted to a third-party contractor who has a presence on site. An overarching rule, enforced by Sky Safari staff and signage is that no food or drink is allowed on platforms or in stations or gondolas.

It is the intention of TCSA to incorporate the Sky Safari into this contract. Taronga will work with the Waste Management Contractor to incorporate specific Sky Safari requirements into the site management plan.

To ensure the highest standards in waste management are achieved, Taronga has a contract with Veolia Australia. Veolia uses only authorized and lawful landfill, transfer station,

processing and recycling facility sites that have the approval of relevant Government authorities. Similarly, any organization performing services for Veolia on a subcontractor basis will only use authorized and lawful disposal sites that hold all of the required licenses and compliance material.

Veolia has achieved ISO 14001 (Environmental Management) certification and AS 4801 (Occupational Health and Safety) at its operations across NSW, ACT, Queensland, Western Australia, and South Australia.

Waste Storage Area

Waste storage will be kept to a minimum with daily collection of waste as per existing management practices. Central storage will be provided for operational waste associated with the Sky Safari at each station location. Recyclables and general waste will be separated and stored in color coded bins with clear labels as per existing public waste collection points.

TCSA's environmental policies encourage waste minimization and the principles of 'Avoid, Reduce, Reuse, Recycle and Disposal'. The below facilities will be available across the Zoo and at each station.



Appendix 3.1(Sky Safari 240L x 3 waste collection points)

General waste (external)	Red lid, dark green or black base 240 litre bins
Co-mingled recyclables (external)	Yellow lid, dark green or black base 240 litre bins
Food organics waste	Green lid, dark green or black base 240 litre bins
Paper & cardboard recyclables	Blue 240 litre bins Blue 1100 litre bins

Appendix 3.2(Sky Safari waste collection points identification table)

Waste management objective

- Throughout its overall operations Taronga is striving towards a 90% diversion from landfill rate by 2025. Taronga achieved 80% diversion in 2022, but due to the recent compostable ban, separated organics from the mixed general waste stream could not be diverted from landfill. As a result, Taronga's recycling rate was 73% in July 2023. Taronga is now working closely with Veolia to increase our recovery rate.

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Public areas

- Consistent with TCSA's Environmental Sustainability Policy, the Sky Safari project will take active steps to reduce the waste generated through operation and queuing;
- Taronga will educate the public and Sky Safari guests to correctly dispose of waste and minimize waste at TZ so to reduce the potential risk caused to animals through waste items such as straws and plastic bags;
- All staff will be trained to be proactive in depositing waste into correct waste bins; and
- Consistent with TCSA's Waste Management Plan, receptacles will be provided for theseparation of waste in public areas.

Waste Collection schedule

Item Collection	Collection Frequency
General Waste including food organics waste	Daily (Mon – Sun), rear loader only travels to waste processing and recycling centre at full capacity
Cardboard and paper	Daily (Mon-Sun), Compactor only serviced when full
Compostable Packaging	Daily (Mon – Sun), combined with back of house organics and transported to large commercial composting facility
Fish waste from Great Southern Oceans exhibit	Once per week, transported to commercial composting facility
Back of house food organics waste	Twice per week, transported to commercial composting facility
Animal Waste (manure, bedding)	Daily (Monday- Sunday), transported to commercial composting facility
Green waste	On call - when bin full, transported to a green waste recovery centre
Metal	On call - when bin full, transported to a recovery centre

Appendix 3.3(Sky Safari waste collection schedule table)

Cleaning

- TCSA will develop, implement and maintain a cleaning schedule for all area which will be updated on an annual basis.
- An external contractor will remove waste from the designated collection points within TZ.
- Taronga will educate the public and Sky Safari guests to correctly dispose of waste and minimizewaste at TZ so to reduce the potential risk caused to animals through waste items such as straws and plastic bags.
- In addition to the above Veolia places general waste and recycling bins on site (as requested) for special events and concerts. Additional coverage of 240 litre bins is required to cover peak periods. These are requested from Veolia as required.

3.11 Maintenance

Taronga Zoo is expecting several preventative & scheduled maintenance plans prescribed by the manufacturer and/or operator in line with the Australian Standards and Canadian Code Z98.

- TCSA anticipate 3 maintenance staff required afterhours, up to five nights a week on a regular operating week. This is subject to the preventative & scheduled maintenance plans provided by the Cable Car manufacturer.
- Taronga has been working with a cable car consultancy to understand the maintenance requirements. The full maintenance program will be determined with the cable car supplier post tender award – expected in mid to late 2024.
- From Taronga's experience with the former cable car system, it is anticipated the following maintenance regime will be required:
- Cable cars will be removed from the cableway system each evening after the Zoo's operating hours to protect the cable cars and critical parts from the elements.
- The cable cars will be washed down to prevent degradation due to the environment.
- A standard cleaning regime will be implemented including washing of windows, seats, and flooring internally.
- Cable cars will be checked by the engineers for any potential operational faults; and
- Changes to the appearance of the cable cars (e.g., wrapping) will take place ad hoc.

4 Property, Infrastructure and Operations

4.1 Environmental sustainability

Taronga is committed to reducing the environmental footprint of their Zoos including via environmentally sustainable design, construction, and operation of new facilities.

Taronga Zoo is working with the Manager of Environmental Sustainability to review:

- Develop workplace procedures to reduce the operational footprint of the enhanced Sky Safari.
- Review materiality and sustainability measures which can be incorporated into the design
- Review construction methods to ensure sustainable measures of construction

Communication of workplace procedures will be integrated into the broader operational plan and change management process for the project.

IS Rating Scheme

TCSA will also be using the IS Rating Scheme to assess the new Sky Safari. This is Australia and New Zealand's rating framework to assess the sustainability of the planning, design, construction and operation phases of infrastructure programs, projects, networks and assets. IS evaluates the sustainability performance of the quadruple bottom line (governance, economic, environmental and social) of infrastructure development.

Several manuals and resources are available, covering different phases of the infrastructure cycle, being the main ones IS Design & As Built v2.0 and IS Planning v2.0. The total score is calculated based on the points achieved in the different credits. Verification of the assessment result is undertaken by an independent third-party verifier.

TCSA will be applying for the "The IS V1.2 Design and As-Built Rating". This helps identify and deliver economic, social and environmental opportunities and benefits in the design and construction phases of a project, making benefits easier to deliver efficiently. It also recognizes the sustainability results project teams are achieving. The rating can be applied on every infrastructure asset class and considers the full asset lifecycle, including operation and decommissioning.

4.2 Asset maintenance

Taronga Zoo is committed to minimizing asset liabilities in terms of the costs for ongoing operation and maintenance. Asset maintenance will be the responsibility of the Guest Experience & Commercial Operations Department with the goal of assets remaining productive at the lowest possible long-term costs.

To meet operational requirements and minimize asset maintenance costs, Taronga will provide for the following in the design:

- Materials based on ease of maintenance, affordability, safety and availability locally.;
- Elements (e.g. light fittings) that can be replaced safely and without significant interference with operations; and
- Appropriate access panels and service vehicle access to the site to support ongoing maintenance.

4.3 Facilities maintenance

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Facilities management will be the responsibility of the Guest Experience & Commercial Operations Department with the facilities management plan to be established at least 6 months prior to the opening. Support will be provided by the assigned Capital Works Project Manager and Asset Management Team, as required. The facilities management plan will include the following items:

- Emergency & evacuation access points;
- Stock and delivery access;
- Waste management; and
- Maintenance and service arrangement