

State Significant Development Request for Secretary's Environmental Assessment Requirements



Taronga Zoo

African Savannah and Congo Exhibits

Submitted to Department of Planning and Environment
On Behalf of Taronga Zoo Conservation Society Australia

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A Site Plan

Tonkin Zulaikha Greer Architects (TZG)

1.0 Introduction

This report has been prepared by JBA on behalf of the Taronga Conservation Society Australia (TCSA), who is proposing to redevelop a portion of the Taronga Zoo site for the purposes of two new animal exhibits, known as the African Savannah and Congo exhibits. Taronga Zoo is located at Bradleys Head Road, Mosman, within the Mosman Council Local Government Area (LGA).

Under Clause 2 of Schedule 2, of the *State Environmental Planning Policy (State and Regional Development) 2011*, development on the Taronga Zoo site with a capital investment of more than \$10 million is State Significant Development (SSD). The proposed new exhibits will have a capital investment value of approximately \$50 million, and are therefore considered to be SSD.

Pursuant to the *Environmental Planning and Assessment Act 1979* (EP&A Act), and Schedule 2, Part 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), this report seeks the Secretary's Environmental Assessment Requirements (SEARs) for the EIS that will support the State Significant Development Application (SSDA), for the development of the African Savannah and Congo exhibits at Taronga Zoo, Sydney.

The report includes a preliminary environmental assessment to inform the preparation of the SEARs by the Department of Planning and Environment, including:

- an overview of the site and the proposed development;
- an outline of the key strategic and statutory plans and requirements; and
- a preliminary assessment of the environmental issues associated with the proposal.

1.1 Background

Taronga Zoo is one of Australia's most popular attractions and together with the Taronga Western Plains Zoo attracts more than 1.5 million visitors annually (2014-2015) contributing an estimated \$249 million per annum to the NSW economy.

Taronga Zoo has a world class reputation in education and the immersion of people with wildlife. A core function of the zoo is to increase visitor understanding of conservation practices and increase awareness of the importance of conservation and preservation of animal species.

The proposed development results from a \$164.5 million capital works development program to transform zoo facilities and visitor experiences over the next 10 years. The program is co-funded by the NSW Government and will deliver eight major wildlife exhibits at Taronga Zoo, including the African Savannah and Congo exhibits, Wildlife Hospital upgrades and nine exhibit upgrades at Taronga Western Plains Zoo.

The current animal exhibits, within the footprint of the proposed works, no longer meet local and international tourist experience expectations. As such, they require upgrades to improve visitor experience, access and circulation and animal conditions. The works will provide larger exhibit areas, including larger holding dens. In addition, the works will resolve current maintenance, access, fire safety, Building Code of Australia (BCA), and Workplace Health and Safety (WH&S) issues that are required to be resolved for both animals and staff.

The new purpose built facilities will provide modern enclosures, which allow for functional, best-practice and safer day-to-day operations and management.

2.0 Site Analysis

2.1 Site Location and Context

Taronga Zoo is located approximately 4 kilometres north of the Sydney Central Business District (CBD), on the northern shore of Sydney Harbour within the Mosman Council (LGA). Irregular in shape, the Zoo is bound 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. The Zoo is divided into eight zoo-geographic regions, over 21 hectares and is home to over 4,000 animals and 340 species. The site's locational context is shown at **Figure 1** and **Figure 2**.

Access to and from Taronga Zoo is generally provided by Bradleys Head Road, which connects to Military Road via Mosman Local Centre. Additionally, secondary access is available via local residential streets, including Union Street, although this is discouraged.

The Taronga Zoo site has significant mature sub-tropical vegetation and multiple heritage items, with the entire site being identified as having local heritage significance under the *Mosman Local Environmental Plan 2012* (MLEP 2012). The zoo contains some unique structures, which represent the present and past zoological practices. The site contributes significantly to the value of the Sydney Harbour landscape.

Immediate neighbouring land uses of Taronga Zoo are limited to single residential dwellings to the north. Elsewhere the zoo is surrounded by the foreshore of Sydney Harbour and the Sydney Harbour National Park. Further afield are residential areas of Mosman to the north-east and the western side of Little Sirius Cove. The boundary of the African Savannah exhibit is located approximately 80 metres from the nearest residential boundary.

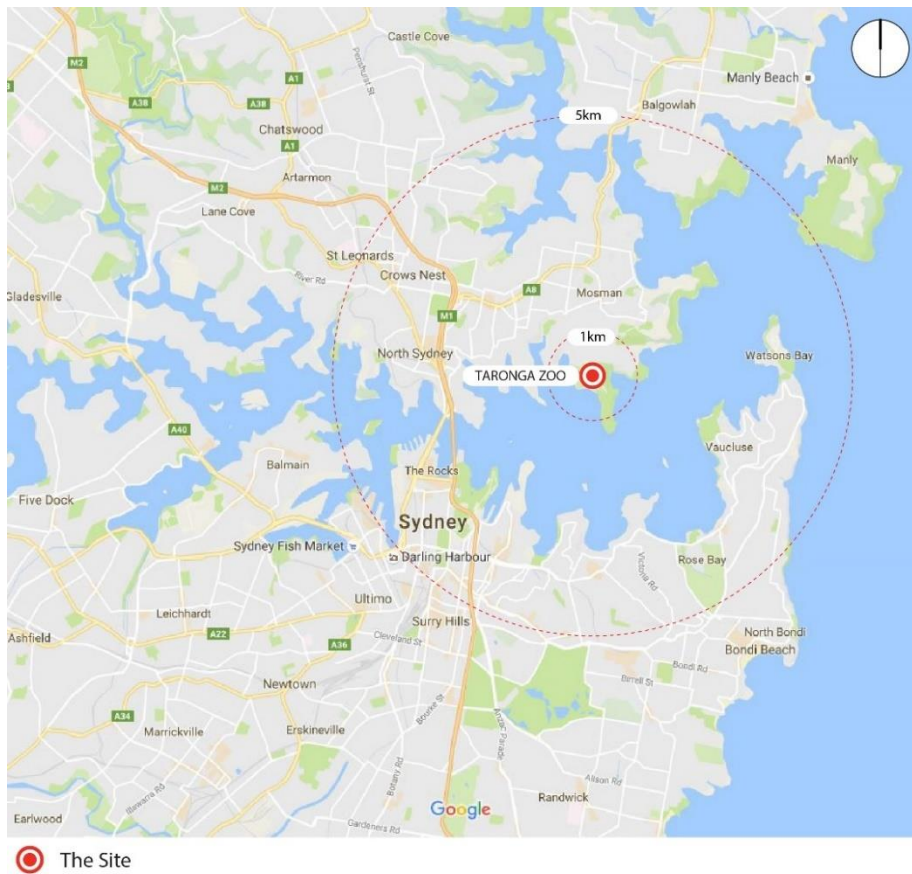


Figure 1 – Taronga Zoo Context Map
Source: JBA/ NearMap

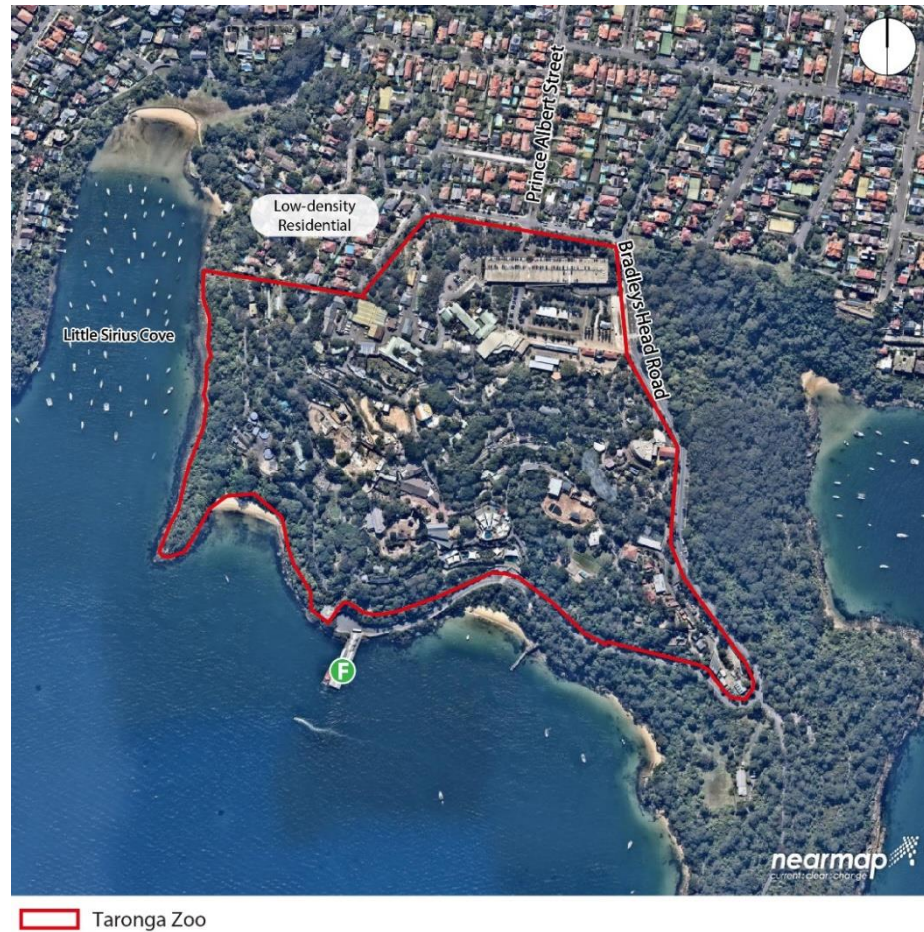


Figure 2 – Aerial Context Map
Source: JBA/NearMap

2.2 Land Ownership and Legal Description

Taronga Zoo is legally described as Lot 22 on DP843294, and is Crown Land managed by the TCSA (the Zoological Park Board).

2.3 Site Description

The new Savannah and Congo exhibit sites are located within the eight zoogeographic regions of Taronga Zoo. The Savannah exhibit area will replace the existing African Safari exhibits, including the Giraffe Encounter, Zebras, Himalayan Tahr, Barberry Sheep, Fennec Fox and Meerkats and is located on the western side of the Zoo towards Little Sirius Cove. The Congo exhibit area will replace the existing Gorilla and Orangutan Facility exhibit. It is located to the east of the Savannah exhibit, centrally to the Zoo site, approximately 175 metres south of the main entrance. The location of the new exhibit sites relative to the overall Taronga Zoo grounds is shown in **Figure 3** below.

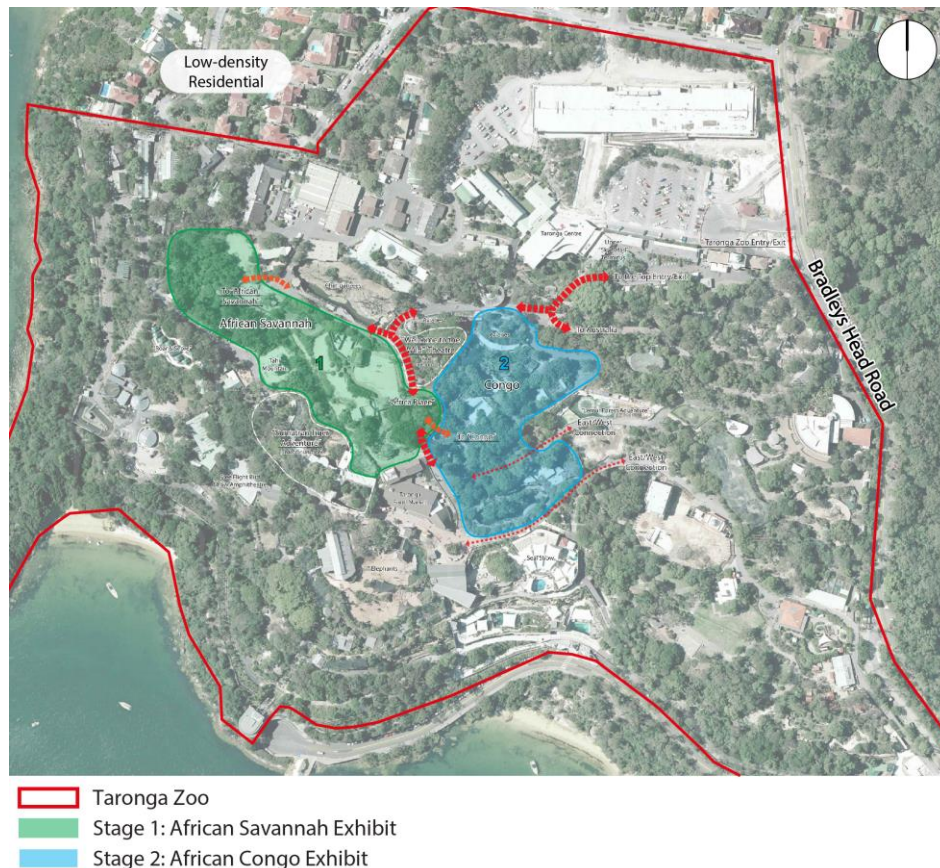


Figure 3 – Location of Savannah and Congo exhibit sites within Taronga Zoo grounds
Source: Taronga Zoo/ JBA

The Taronga Zoo site slopes from the ridge on the southern edge of the suburb of Mosman down to the waters of Sydney Harbour, at an average grade of about 1:10. The natural watercourse, running diagonally across the site, has created a concave, amphitheatre landform for the site, which has been gradually manipulated over time, through construction works.

The proposed Savannah exhibit site sits on a relatively flat area with significant level changes on three sides with sharply falling cliffs towards the southern end. The site has limited existing vegetation except on the western boundary where some small areas of vegetation still exists.

The proposed Congo exhibit site sits on moderately sloping ground, sloping towards the south-west. The area has stands of existing exotic vegetation with remains around old disused site and circulation infra-structure.

Multiple items within and surrounding the proposed exhibit footprints are identified as having heritage significance under the Zoological Parks Board (ZPB) Section 170 Heritage and Conservation Register but are not listed within MLEP 2012. The first giraffe enclosures, which form part of the Savannah site, were erected between 1923-1925. Additionally, the large mock rock Tahr Mountain exhibit that sits towards the south of the Savannah exhibit site dates from 1932. Many of the original paths connecting the exhibits through the Taronga Zoo grounds remain. Their design and construction adding significant character to the area.

Furthermore, an area to the south of the Savannah site, adjacent the Free-flight Bird Show, has been identified as an Aboriginal archaeological site. It is noted there exists the potential for further sites of Aboriginal significance to be uncovered during construction and will be dealt with accordingly.

2.4 Surrounding Development

The proposed exhibit sites lie within the heart of the Zoo and are surrounded by other Zoo exhibits and guest circulation routes. Immediate neighbouring land uses of Taronga Zoo are limited to single dwellings to the north, north-east and west on the other side of Little Sirius Cove. The nearest residential boundary to the proposed exhibit sites is located approximately 80 metres to the north. However, ancillary zoo facilities separate the exhibit sites from the neighbouring residential properties.

Located adjacent the Savannah to the north is Reptile World. Further to the north adjacent the zoo boundary are multiple low-density residential dwellings. To the east of the site is the new Centenary Theatre, expected to open late 2016. To the south is the new Sumatran Tiger Adventure Exhibit opening in 2017. To the west, adjacent the zoo boundary and Little Sirius Cove sits the Roar and Snore accommodation facility.

To the east of the Congo exhibit site is the Lemur Forest Adventure exhibit and to the west the Wild Theatre. To the east are multiple exhibits including the male elephants and crocodiles. To the south of the site is the Seal Show exhibit. To the south west is the Taronga Zoo Food Market, Sumatran Tiger Adventure Exhibit and proposed Savannah exhibit.

3.0 Proposed Development

3.1 Summary of Proposal

The proposed development will provide for the revitalisation of exhibits improving animal welfare and visitor experience. The new exhibits, known as, the African Savannah exhibit and Congo exhibit, cover an area of 10ha and 8.9ha, respectively and have an approximate capital investment \$50 million.

The development will include the following key components:

- Demolition of the existing African Safari exhibit;
- Construction of a new African Savannah exhibit for Giraffe, Zebra, Lions, Meerkats and Fennec Fox species. The new exhibit will include:
 - a number of varying size exhibits of different landscape character and scale;
 - holding dens and back of house facilities;
 - containment fences;
 - landscaping and new landscape suited to the different animals
 - generous milling and seating areas;
 - interpretative and directional signage;
 - central visitor areas and circulation paths;
 - animal management infra-structure;
 - visitor amenities such as toilets etc.; and
 - animal food preparation area / equipment store.
- Construction of a new Congo exhibit for, Gorillas, Colobus Monkey and Okapi. The new exhibit will include:
 - a number of varying size exhibits of different landscape character and scale;
 - holding dens and back of house facilities;
 - containment fences;
 - landscaping and new landscape suited to the different animals
 - generous milling and seating areas;
 - interpretative and directional signage;
 - central visitor areas and circulation paths;
 - animal management infra-structure;
 - visitor amenities such as toilets etc.; and
 - animal food preparation area / equipment store.
- Relocation, upgrade and augmentation of services as required; and
- Demolition of the existing Gorilla facility, including back of house. This area will be temporarily landscaped during construction of this development.

An indicative layout of the proposed exhibits is provided in **Figure 4**.

The proposed works will allow for changes in the species and number of specimens present in each exhibit. Additionally, the works are not being carried out with the intent to increase visitation numbers rather improve the visitor experience.



Figure 4 – The current concept plan for the Savannah and Congo exhibits
Source: Tonkin Zulaikha Greer Architects (TZG)

3.2 The Vision

The proposed development will provide for the revitalisation of exhibits improving animal welfare and visitor experience. The Visitor Experience Masterplan controls redevelopment across the Zoo site and sets the direction for the gradual up-grade of facilities and replacement of assets. The design of the proposed exhibits will be to world standards, encompassing the latest presentation techniques and strategies.

The Savannah and Congo exhibits form a key component in the upgrade of the centre of the site. They are the first exhibits following the Centenary Theatre, where visitors begin their journey through the Zoo. The sites present varied landscape characteristics and aspects as visitors move throughout. External views beyond the site form a significant component to the Savannah experience. Conversely the Congo site has a more enclosed environment to suit the desired atmosphere.

3.3 Built Form

The proposed new exhibit buildings will be minimal in nature with their primary function to service animal management requirements. These animal management requirements are core drivers in the design and appearance of the structures. The structures are seen as being light weight in nature forming a strong relationship with the site and the surrounding environment. The proposed structures will be designed appropriately to maintain the scenic qualities of the Zoo site as viewed from the Sydney Harbour.

The site possesses a number of natural attributes that will be preserved and form key design drivers in the site planning outcomes. Where possible the exhibit will use the naturally occurring features of the site. For example, existing trees where practical will be conserved, sand stone rock out crops will form part of the exhibits, levels changes will be retained forming key components of the design and existing service infrastructure will be retained and accommodated during design and construction.

3.4 Access

The primary circulation paths which currently exist at each of the sites will be retained with only some adjustments to assist with achieving improved accessibility, viewing opportunities and security.

3.5 Services and Infrastructure

The proposed exhibits will utilise existing water, sewerage, gas, electricity and communications infrastructure which service the current exhibits. Required, relocation, upgrades and augmentation of these services and infrastructure will occur as required subject to detailed design and construction.

3.6 Indicative Project Timing

The project is being funded over two stages and as such construction will be structured around this program.

- Stage 1: the African Savannah main works will occur between 2017 and 2019
- Stage 2: the African Congo main works will occur between 2021 and 2022.

The works are being undertaken as a single project, albeit in two construction phases, due to the significant amount of shared infrastructure.

3.7 Separate Works

Separate to this application, Taronga Conservation Society Australia (TCSA) will be undertaking the following associated temporary works:

- animal relocations to temporary facilities and/or off site removal to other facilities. The temporary enclosures will house some of the animal species during the construction of the exhibits; and
- temporary relocation of guest facilities within site.

These works are to be undertaken as exempt development as per Schedule 2 of MLEP 2012, as the works have a capital investment value of less than \$1 million.

4.0 Planning Framework

4.1 Strategic Planning

NSW State Plan 2021

The NSW State Plan 2021 (released in 2011) is the overarching strategic document for policy in the State with regards to the economy, infrastructure development, housing, transport, health, community services and education. One of the five key strategies is to improve the performance of the NSW economy, with a priority of increasing NSW tourism. The proposal responds to this by providing new facilities at Taronga Zoo to enhance tourism offerings in NSW for the international and domestic market.

NSW Making It Happen – Premier's Priorities

The NSW Making It Happen Plan is the 2015 revision of the NSW 2021 Plan as discussed above. This revised plan sets more targeted, specific goals and priorities for the State. The Priorities include key areas of focus such as, transport, health, education, environment, police and justice, infrastructure, economy and accountability. One of the key Priorities is to improve the performance of the NSW economy, with a priority action being to accelerate major project assessment. The proposal aligns with this and other priorities of the State, by contributing to the growth of the NSW economy via enhanced tourism offerings at Taronga Zoo, providing for the international and domestic market. This proposal is considered to be State Significant Development.

Plan for Growing Sydney

The NSW Government's *A Plan for Growing Sydney* (2014) outlines the future vision for Sydney, providing a strategy to manage the city's change and growth over the coming 15 years. The Plan responds to Sydney's needs as a growing global city, establishes broad spatial principles for land use change, and sets out a framework to facilitate growth through coordination of planning and infrastructure delivery.

The proposed African exhibits will be consistent with the various objectives of *A Plan for Growing Sydney*. Specifically, the exhibits will:

- Contribute to the development of Sydney as a premier visitor destination by enhancing tourist opportunities at Taronga Zoo, showcasing educational and cultural facilities;
- Enable sustainable visitor and tourism experiences on the foreshore of Sydney Harbour National Park; and
- Contribute to the protection of Sydney Harbour and its foreshore through sensitive environmental design and considered design of proposed built form.

Taronga Zoo Strategic Plan 2016-2020

The Taronga Zoo 2016-2020 Strategic Plan has been developed to document and communicate the Zoo's key priorities while building on the foundation of the now superseded 2010-2015 Strategic Plan. The Strategic Plan framework includes the Zoo's values and is supported by organisational commitments to conservation, animal welfare, guest experience, sustainability and work health and safety. In conjunction with the Strategic Plan, the Taronga Zoo Centenary Master Plan and Visitor Experience Program establishes objectives and goals to revitalise the zoo over the next 10 years. The program, announced by the NSW Government in March 2015, includes \$200 million of Taronga funded and government co-funded projects to transform visit experiences and create vital animal habitats. The African Savannah and Congo exhibits are two of the proposed exhibits identified

to meet the goals of the program. Other exhibits currently under development or to be developed include the Sumatran Tiger Experience, Taronga Institute of Science and Learning, Wildlife Hospital and Elephant Trail.

4.2 Legislative Requirements

Environmental Planning and Assessment Act 1979

Development consent for the proposed exhibits is required under Part 4 of the EP&A Act. As the proposed development constitutes SSD the Minister for Planning (or delegate) will be the consent authority. An EIS that meets the requirements set out in Schedule 2 of the EP&A Regulation will be required to support the State Significant Development Application (SSDA) for the development of the Zoo.

Exhibited Animals Protection Act 1986

The *Exhibited Animals Protection Act 1986* identifies the need for approvals to be given for the Zoo to exhibit animals, with certain animals requiring specific permits. The *Exhibited Animals Protection Act 1986* will ensure the safety and well-being of animals through the design and approval of animal enclosures.

TSCA sees animal welfare as being of paramount importance. Its enclosure designs will exceed the minimum specified standards by a considerable margin. The proposed exhibit designs seek to deliver high quality environments contributing to animal welfare.

4.3 Environmental Planning Instruments

This section summarises the relevant Environmental Planning Instruments that apply to the Site. The following planning instruments are of key relevance to the proposed development:

- *State Environmental Planning Policy (State and Regional Development) 2011*;
- *State Environmental Planning Policy No. 55 – Remediation of Land*;
- *Sydney Harbour Catchment Regional Environmental Plan 2005*; and
- *Mosman Local Environmental Plan 2012*.

4.3.1 State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) was adopted on 1 October 2011 and identifies State Significant Development (SSD). Pursuant to Clause 2 of Schedule 2, of the SRD SEPP, the development on the Taronga Zoo site is declared to be State Significant (SSD), as the new exhibits will have an approximate capital investment value of \$50 million.

The Determination of State Significant Applications Planning Circular PS 11-022 issued by the Department of Planning and Infrastructure on 30 September 2011 sets out the delegations of the Minister for Planning and Infrastructure to determine SSD DAs under the EP&A Act. All applications made by or on behalf of a public authority are to be determined by the Minister.

Taronga Conservation Society Australia (TCSA) is a public authority under the EP&A Act and consequently the Minister for Planning and Environment is the consent authority for any SSD DA lodged by or on behalf of the TCSA. Section 78A(8A) of the EP&A Act requires that all SSD DAs must be accompanied by an

EIS prepared by or on behalf of the applicant in the form prescribed by the EP&A Regulations.

Schedule 2 of the EP&A Regulations identifies that a written application must be made to the Secretary for the environmental assessment requirements with respect to the proposed EIS. Accordingly, this report provides documentation in support of the application for SEARs.

4.3.2 State Environmental Planning Policy No 55 – Remediation of Land

SEPP 55 introduces state-wide planning controls for the remediation of contaminated land. It states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. Prior to the issue of consent, the consent authority needs to be satisfied that the site is suitable for the proposed use. Given the site is currently being used for zoo exhibits, and the use is proposed to continue, contamination is an unlikely issue. However, contamination has been considered and investigations will be undertaken and included in the EIS to ensure the site is suitable for the proposed use.

4.3.3 Sydney Harbour Catchment Regional Environmental Plan 2005

The Sydney Harbour Catchment Regional Environmental Plan 2005 (SHREP 2005) is a deemed SEPP and applies to the Sydney Harbour, foreshores and catchment. SHREP 2005 provides planning principles to guide future development and a range of matters when considering development applications within the foreshores and waterways of Sydney Harbour, including planning controls for strategic foreshore sites.

Under SHREP 2005 the site is identified within the Foreshores and Waterways Area, listed as a “Strategic Foreshore Site”. The site does not have any heritage listing under SHREP 2005. Development listed in Schedule 2 of the SHREP 2005 is required to be referred to the Foreshores and Waterways Planning and Development Advisory Committee (Foreshore Committee) prior to determination. The proposed zoological exhibits fall within the definition of a ‘flora and fauna enclosure’. As such, the proposal may require referral to the Foreshore Committee.

Given the proposed ‘flora and fauna enclosure’ will replace existing facilities and its location, materiality and built form of proposed structures integrates with the harbour-side landscape, it is not envisaged the proposal will result in a significant visual, scenic or environmental impacts on Sydney Harbour and its foreshore. Any potential adverse impact to the visual quality of the site will be minimised and mitigated where possible. This will ensure that the proposed works are recessive in nature and maintains the sensitive amenity of the foreshore locality. Ongoing management and mitigation of potential construction impacts will be addressed as part of the EIS.

Furthermore, Clause 41 states development consent must not be granted for development identified as a strategic foreshore site, unless a master plan for the site has been prepared and consideration has been given to the plan by the consent authority. Taronga Zoo has an approved Master Plan ‘Zoo 2000 – The view to the future’ in place. Additionally, the Taronga Zoo Centenary Master Plan (2016) will inform the proposal. It is understood the ability exists to waive the requirement for a Master Plan under Clause 41 if:

- a) if satisfied that preparation of a master plan is unnecessary because of:
 - (i) the nature of the proposed development, or

(ii) the fact that the proposed development will affect only a small proportion of the site, or

(iii) the adequacy of other planning controls applying to the proposed development, or

b) for such other reason as the Minister considers sufficient,

so long as the Minister is satisfied that the proposed development will not compromise the application of the planning principles set out in clauses 13, 14 and 15 which relate to the planning principles of the Sydney Harbour Catchment, Foreshores and Waterways Area and Heritage conservation.

Taronga Zoo has an approved master plan, 'Zoo 2000 – The View to the Future' and the more recent Taronga Zoo Centenary Master Plan. These outline the ongoing redevelopment and refurbishment of the zoo site which includes the African Savannah and Congo exhibits.

4.3.4 Mosman Local Environmental Plan 2012

The *Mosman Local Environmental Plan 2012* (MLEP 2012) is the primary local environmental planning instrument applying to the site. Key planning controls are discussed below.

Zoning and Permissibility

The site is zoned 'SP1 Special Activities – Zoological Gardens' under MLEP 2012. The objectives of the SP1 Special Activities zone are:

- to provide for special land uses that are not provided for in other zones.
- to provide for sites with special natural characteristics that are not provided for in other zones.
- to facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land.

The proposed African Savannah and Congo exhibits are consistent with the zone objectives in that they:

- will replace existing animal exhibits, thus keeping with the existing special use of the site;
- will integrate with the natural bushland, heritage items and significant trees and landscape features of the site and its harbour-side location; and
- will provide an immersive visitor experience enabling a unique opportunity for animal interaction whilst improving exhibit conditions and animal welfare.

The only uses permitted on the site with development consent is for the purpose shown on the Land Zoning Map including any development that is ordinarily incidental or ancillary to development for that purpose. The African Savannah and Congo exhibits are permissible with consent.

Heritage

Taronga Zoo site contains several locally listed heritage items under the MLEP 2012, identified as Item I34 being the "Rainforest Aviary", "Elephant House", "bus shelter and office", "floral clock" and "upper and lower entrance gates". None of these items are located in or directly adjacent to the proposed development.

Taronga Zoo contains a number of archaeological items listed in MLEP 2012 including item A494 "Sites of Curlew and Mia Mia Camps" at Sirius Cove Road on Bushland between Little Sirius Cove and Whiting Beach. This item is situated on Lot 22 DP 843294 but is located outside of the Zoo's perimeter fence line.

Additional heritage items listed in MLEP 2012 which are located within the Taronga Zoo site include:

- Item A482 "Former Athol Wharf Tram Terminus, including escarpment and retaining walls" on Athol Wharf Road and is described as "Road Reserve adjacent to Taronga Zoo Ferry Wharf"; and
- Item A483 "Site of first wharf serving Taronga Zoo" on Athol Wharf Road and is described as the Taronga Zoo Ferry Wharf.

However, none of these items are located in or directly adjacent to the proposed exhibits site.

Development Standards

Under the MLEP 2012 there are no building height or floor space ratio controls applying to the site.

The site is identified as a "Scenic Protection Area" under Clause 6.4 of MLEP 2012. The objectives of this clause are:

- a) to recognise and protect the natural and visual environment of Mosman and Sydney Harbour;
- b) to reinforce the dominance of landscape over built form; and
- c) to ensure development on land to which this clause applies is located and designed to minimise its visual impact on those environments.

Clause 6.4 identifies development consent must not be granted to any development unless the consent authority is satisfied that:

- a) measures will be taken, including in relation to the location and design of the proposed development, to minimise the visual impact of the development to and from Sydney Harbour, and
- b) the development will maintain the existing natural landscape and landform.

The proposal maintains the visual connection between Taronga Zoo and Sydney Harbour without becoming overly dominant. The structures have been designed to a scale that will integrate with the existing natural landscape. Additionally, natural landform features have been used in the design of the exhibits. These items will be addressed in further detail as part of the EIS.

Additionally, Clause 6.4 and Clause 5.9 of the MLEP 2012 require consideration of the preservation and protection of existing natural landscape and landforms, as well as the clearing of vegetation to make way for the new exhibits. These matters will be addressed in the EIS. An Arborist Report will be prepared to assess the impact of the proposal on the existing trees. A Landscape and Public Domain Plan will also be to highlight any trees and planting to be removed, as well as replacement trees and vegetation included as part of the proposal.

5.0 Preliminary Environmental Assessment

5.1 Secretary's Requirements

This information has been compiled to assist in the preparation of the Secretary's Environmental Assessment Requirements which will guide the preparation of the EIS for the proposal. The key environmental considerations associated with the proposed development are discussed below. These include:

- built form, design and visual impact;
- heritage and archaeological impacts;
- water quality and stormwater management;
- landscaping and public domain;
- car parking and traffic impacts;
- Building Code of Australia (BCA);
- noise and vibration impacts;
- air quality;
- waste management;
- biodiversity, flora and fauna impacts;
- bushfire;
- utilities and services;
- geotechnical and contamination;
- sustainability;
- operational management; and
- construction management.

Specialist studies will be undertaken as part of the proposal to assist in addressing these issues.

5.2 Built Form, Design and Visual Impact

The proposed Site Plan prepared by TZG and included at **Appendix A** provides an indication of the general site layout and design characteristics of the proposed exhibits. The EIS will address the height, bulk, and scale of the proposed development within the context of the locality. The EIS will also address the design quality with specific consideration of the use of the colour, materials, finishes and landscaping.

The nearest exhibit boundary (African Savannah) is located approximately 80 metres from the nearest residential boundary and visually separated from adjacent neighbouring properties. The sites are situated on the south west facing side of the ridge that divides Taronga Zoo with the Congo sites eastern boundary being located on the top of the ridge. The Savannah Site has an open character with strong views to the harbour. This will not change as a result of the redevelopment with the new facilities located in this area being visible from Sydney Harbour. However, the lion fencing being partially transparent and well located within the topography of the site will reduce the perceived visual impact.

The Congo site is more vegetated and as such has lesser views across to the Sydney harbour. Retention and replacement of significant trees and vegetation within the Congo exhibit will maintain the existing character of the precinct. Additionally, maintaining this vegetation will help mitigate or minimise the visual impact of the development when viewed from Sydney Harbour, Bradleys Head Road and surrounding areas.

As assessment will be made as part of the EIS of the impact on any significant views to, from and through the site. Potential view impacts and subsequent mitigation measures will be clearly documented as part of the submission.

5.3 Heritage Impacts

Whilst Taronga Zoo is identified as a heritage item under the Section 170 register of the Zoological Parks Board, it is not listed on the State Heritage Register. However, multiple items within and surrounding the proposed exhibit footprints are identified as having heritage significance. The development proposes to retain some of the more significant items where possible with the removal of others. Further detail will be provided within the EIS.

In accordance with Clause 5.10 of the MLEP 2010, a Heritage Impact Assessment (HIA) will be prepared as part of the EIS to assess the impact of the proposed development on the European and Aboriginal heritage items on the site. The Taronga Zoo Conservation Strategy July 2002 was endorsed by NSW Heritage Office and provides the policy framework for the conservation, interpretation, management and use of the site as part of the implementation of the Masterplan. This document will be a key consideration for the preparation of the HIA.

5.4 Water Quality and Stormwater Management

The EIS will include a Stormwater Management Plan to address stormwater management issues. The report will provide details regarding proposed on-site stormwater management, as well as any necessary erosion and sediment control measures required to mitigate off-site impacts. In the detailed design of the exhibits utilisation of rainfall capture facilities and re-use of rain-water on site to reduce water supply requirements will be explored.

5.5 Landscaping and Public Domain

The Site Plan (**Appendix A**) indicates the proposed landscaping features and public domain aspects of the proposal. It is understood the existing circulation and public domain surrounding the exhibits will require only minor modifications. Landscaping will utilise existing features of the site, including the sharp changes in topography.

5.6 Access, Car Parking and Traffic Impacts

Current access to the exhibit sites will be retained. Vehicular access to Taronga Zoo will remain via Bradleys Head Road and the main entry building. All Zoo related circulation will be maintained within the site and will have no impact on surrounding residences or land uses. It is anticipated the redevelopment of these areas will result in the improvement of internal Zoo circulation and accessibility. Taronga Zoo service access routes will occur from the north and east along three primary and one secondary routes.

Local parking and traffic conditions will not be altered by this proposal. Whilst it is anticipated that visitation to the Zoo may increase at the time of opening of the new exhibit, long term visitation levels are expected to remain consistent with

projected growth identified in the Taronga Zoo 2016-2020 Master Plan. As such, additional parking will not be required as a result of this proposal.

Foreshore access by the public will not be impacted by the proposal.

A Traffic Impact Assessment will be prepared for inclusion in the EIS. It will be demonstrated that the existing parking and public transport arrangements and altered servicing arrangements will be sufficient to serve the new exhibits.

5.7 Building Code of Australia (BCA)

The works will resolve current maintenance, access, fire safety, Building Code of Australia (BCA), and Workplace Health and Safety (WH&S) within the existing exhibits. A BCA Report will be submitted as part of the EIS to confirm that the proposal will be capable of complying with the relevant provisions of the BCA.

5.8 Noise and Vibration Impact

The occupation of the site for the purposes of animal exhibitions has occurred for 100 years. As such, the acoustic environmental will generally remain unchanged as a result of the proposal, which replaces existing exhibit facilities. The proposal may result in some animals being relocated within the general site thus altering the acoustic outputs of different areas.

In any case, an Acoustic Report will accompany the EIS, which will assess the potential impacts on the surrounding residential development and ways in which they can be mitigated.

5.9 Air Quality

There is a potential for temporary air quality impacts during the construction phases of the proposal primarily from dust associated with demolition, earthworks and site preparation. As such, consideration of construction air quality issues would be included in the EIS.

The current use has operated within the site for the past 100 years. As such, operational air quality impacts resulting from animal odours and handling of animal wastes should not impact significantly on the surrounding area.

5.10 Waste Management

Waste will be generated during both construction and operation. A Waste Management Plan will be submitted with the EIS to outline the management and monitoring of the waste generated as part of the proposed development. The Waste Management Plan will outline the types of waste to be generated, how they will be stored, recycled or disposed, on and off-site including collection points and method of removal, for both the construction and operation stage.

5.11 Biodiversity, Flora and Fauna

Significant biodiversity, flora and fauna exist within the Taronga Zoo site. Where possible existing vegetation will be retained on site as part of the exhibit landscaping.

5.12 Bushfire Risk Assessment

Under the Draft Bushfire Risk Management Plan 2015-2020 the sites are identified as bushfire prone land and are within a bushfire management zone. A Bushfire Report will be included in the EIS, which will provide details regarding proposed bushfire management or mitigation measures required for the new exhibits.

5.13 Infrastructure and Utilities

All required services for the proposed development are available on within the development boundaries, with some services being relocated elsewhere within the Taronga Zoo site. Some augmentation may be required. Further information within an Infrastructure Report will be provided as part of the EIS.

5.14 Geotechnics and Contamination

Geotechnical and contamination investigations will be undertaken as part of the environmental assessment to inform earthworks on the site. Given the site is currently being used for the purposes of zoological exhibits, and the use is proposed to continue, contamination is an unlikely issue. Additionally, previous works within the vicinity of the site have not identified geotechnical or contamination issues. A geotechnical and contamination report will be submitted with the EIS.

5.15 Sustainability

The proposed development aims to achieve high levels of sustainability in accordance with the Taronga Zoo 2016-2020 Strategic Plan and Taronga Zoo operations philosophy. The EIS will set out the proposed features of environmental sustainability. A sustainable design report will be provided with the EIS.

Additionally, a preliminary Construction and Environmental Management Plan will be submitted with the EIS and will outline the key management measures to be implemented to ensure sustainable practices are conducted during construction and operation.

5.16 Operational Management and Animal Welfare

The EIS shall provide a summary of animal husbandry policies and guidelines to be met and identify practices to be adopted to satisfy relevant requirements. Animal welfare issues will be overseen by the Department of Primary Industries (Exhibited Animals) and are subject to the *Exhibited Animals Protection Act 1986*. Taronga Zoo has been operating to a "gold standard", with exceptional exhibition quality and husbandry practices. The redevelopment of these exhibits seeks to continue this practice in accordance with the Taronga Zoo 2016-2020 Strategic Plan. The specific exhibit design features that are planned for the exhibits will generally exceed the relevant standards under the Exhibited Animals Protection Act.

5.17 Construction Management

A preliminary Construction and Environmental Management Plan will be submitted with the EIS and will outline the key management measures to be implemented during construction of the proposed exhibits.

6.0 Consultation

It is recognised that there will be a number of stakeholders who will require consultation throughout the preparation of the EIS for the Project Name and Address. These may include but are not limited to:

- The local community, particularly neighbouring residents
- Mosman Council, including Councillors
- Member for North Shore, Jillian Skinner
- Department of Planning and Environment
- Environment Protection Authority
- Office of Environment and Heritage and Heritage Council
- Primary Industries
- NSW Rural Fire Service
- Community Groups including Headland Preservation Group, Mosman Parks and Gardens and members of the local aboriginal community
- Taronga Zoo's internal community, including staff, volunteers and supporters

A consultation strategy is being prepared, and is intended to carry out target consultations with the local community and stakeholders during the preparation of the EIS.

Potential communication and consultation activities may include:

- Stakeholder briefings for key Government agencies
- Stakeholder briefings for Council and local MP
- Letter box drop for local residents
- Community information and feedback sessions for residents, community groups and all interested stakeholders
- Communication collateral including Fact Sheets to be promoted via "Building a Better Zoo" pages on Taronga Zoo's website and other communication channels
- Media release and follow up media briefing for *Mosman Daily* to reach the local community

The outcomes of the consultation activities will be described in the EIS.

7.0 Conclusion

This submission provides information to assist in the preparation of the Secretary's Environmental Assessment Requirements to inform the preparation of an EIS for the proposed African Savannah and Congo exhibits at Taronga Zoo, Sydney.

The proposal represents a significant opportunity to enhance the facilities of Taronga Zoo and promote the Zoo as a place of conservation, education and importantly a tourism facility within Sydney.

The issues discussed in this report are considered to represent the key environmental considerations associated with the proposal and are adequate to inform the Secretary's Requirements.

It is therefore requested that the Secretary issues the requirements for the preparation of an EIS for a State Significant Development Application for the new African Savannah and Congo exhibits at Taronga Zoo.

The proponent would welcome the opportunity to provide a detailed briefing to the Department of Planning and Environment should it be required.

Site Plan

Tonkin Zulaikha Greer Architects



Project Title:

The African Savannah & Congo Precinct
Taronga Conservation Society Australia - Taronga Zoo



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Scale: 1:500 @ A1

Created By: RSG

Date: September 16

Drawn By: TB

Job No: 11898

Checked By: RSG

Drawing Title:

SITE PLAN

Drawing No: #####

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