

**STATE SIGNIFICANT DEVELOPMENT
ASSESSMENT REPORT:
*Australia Habitat and Taronga Wildlife
Retreat, Taronga Zoo
SSD 7419***



Environmental Assessment Report
Section 89H of the
Environmental Planning and Assessment Act 1979

April 2017

ABBREVIATIONS

Applicant	Taronga Conservation Society Australia, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
CIV	Capital Investment Value
Council	Mosman Council
Department	Department of Planning and Environment
EIS	Environmental Impact Statement entitled ' <i>Australia Habitat and Taronga Wildlife Retreat – Taronga Zoo</i> ' and accompanying appendices, prepared by Urbis Pty Ltd and dated March 2016
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
GSC	Greater Sydney Commission
GFA	Gross Floor Area
Minister	Minister for Planning
MD SEPP	<i>State Environmental Planning Policy (Major Development) 2005</i>
MLEP 2012	Mosman Local Environmental Plan 2012
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
RTS	Response to Submissions package entitled ' <i>SSD15_7419 Australia Habitat and Taronga Wildlife Retreat – Response to Submissions</i> ' and accompanying appendices, prepared by Urbis Pty Ltd and dated 5 October 2016 and Response to Requests for Information and accompanying appendices, prepared by Urbis Pty Ltd and dated 14 December 2016
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State significant development
TCSA	Taronga Conservation Society Australia
TISL	Taronga Institute of Science and Learning

Cover Photograph: Photomontage of southern elevation of Pod B and sanctuary exhibit area
(Source: EIS)

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EXECUTIVE SUMMARY

This report provides an assessment of a State Significant Development application (SSD 7419) lodged by Taronga Conservation Society Australia (TCSA) (the Applicant) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The application seeks approval for demolition works and construction of a new Australian habitat exhibit and wildlife retreat with 62 guest rooms/suites at Taronga Zoo.

The development is SSD under Schedule 2 of the *State Environmental Planning Policy (State and Regional Development) 2011*, as it is a development at Taronga Zoo that has a capital investment value of more than \$10 million. Therefore, the Minister for Planning is the consent authority. However, the Executive Director, Key Sites and Industry Assessments has delegation to determine the application.

The site is zoned 'SP1 Special Activities "Zoological Gardens"' under *Mosman Local Environmental Plan 2012*. The Department considers the proposed use to be ordinarily incidental and ancillary to the use of the site as a "Zoological Garden" and is therefore permissible.

The Department exhibited the SSD application and Environmental Impact Statement for the proposal for 47 days from 7 April 2016 until 23 May 2016. In response, the Department received 10 submissions from public authorities and 26 submissions from the general public. Two further public submissions were received after the close of exhibition.

No public authorities, including Mosman Council (Council), objected to the proposal. Of the 28 public submissions received, 24 were objections. Key issues raised in the submissions include permissibility of use, restricted public access to public land, built form, traffic and parking, tree loss, bushfire risk, animal welfare and construction and operational impacts. The Department has fully considered these issues and all relevant matters under the EP&A Act.

The Department considers the proposed use will be constructed in an area of the zoo which is not accessible to visitors and will enable additional land to be utilised as exhibition space thus increasing public access within the zoo. All visitors to the zoo will be able to view the proposed exhibits with guests of the wildlife retreat also able to enter the proposed sanctuary exhibit. The Department considers the proposal an appropriate use of public land.

The Department considers the proposed buildings have been designed to a high quality and they will have a negligible visual impact on the zoo's overall setting and scenic quality. The Department is satisfied the extent of tree loss has been minimised and the proposed landscaping and replanting scheme will further mitigate any visual impact of the proposed works. As such, the overall bushland setting quality of the site will be maintained.

The Department considers sufficient parking exists onsite to cater for the proposed development given demand for parking from the development will fall outside of the peak demand for parking generated by day visitors to the zoo. The surrounding local road network has sufficient capacity to accommodate the relatively minor increase in traffic movements resulting from the proposed development. The heritage impacts of the proposal have been assessed by the Department as minor and acceptable.

The Department is also satisfied the proposal is consistent with the strategic objectives for the area, as outlined in *A Plan for Growing Sydney*, the draft *Towards our Greater Sydney 2056* and the *Draft North District Plan*, and is consistent with the requirements of relevant environmental planning instruments and policies. The proposed works and use are also considered consistent with the *Zoological Parks Board Act 1973* and the aims of Zoo 2000.

The Department's assessment concludes the development is in the public interest and should be approved, subject to conditions.

1. BACKGROUND

1.1 Introduction

This report provides an assessment of a State significant development application (SSD 7419) lodged by Taronga Conservation Society Australia (TCSA) (the Applicant) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The application seeks approval for the construction of new Australian habitat exhibit and wildlife retreat with 62 guest rooms/suites at Taronga Zoo (the zoo).

1.2 The Site

The zoo is located on Bradleys Head Road at the southern end of Mosman on the Bradleys Head Peninsula. The zoo is approximately 28 hectares and is surrounded 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 slopes significantly from the north down to Sydney Harbour. The zoo comprises a variety of animal exhibits, associated pathways and existing building structures within a landscaped setting.

The zoo is legally described as Lot 22 in DP 843294 and it is located within the Mosman Local Government Area. The location of the zoo is shown in **Figure 1**.



Figure 1: Site context plan (Source: Google Maps)

1.3 Site Context

The proposed development site (the site), is located within the 'Australia Precinct' in the eastern portion of the zoo. The site comprises an area of approximately 12,970 m² and includes the existing Taronga Centre and land to the immediate south. The Taronga Centre opened in 1987 and operates as a function centre for weddings and business events.

The site also contains the Circular Kiosk, function area, toilet block, existing structures associated with animal exhibits (the Red Kangaroo and Quokka exhibits plus two aviaries), back of house facilities, retaining walls, a service road and pathways. The site contains a significant level of tree cover with 219 trees located within 5 m of the proposed works and a number of landscape and built form heritage items.

The northern portion of the site, adjacent to the Taronga Centre and Circular Kiosk, is generally level. However, significant level changes occur to the south with an approximate fall of 11.6 m over a number of terraces from the Taronga Centre to the existing Tasmanian Devils exhibit to the south.

Access is from Bradleys Head Road which extends alongside the entire eastern boundary of the zoo grounds. Visitor car parking is located at the northern end of the grounds within an existing multi-storey car park and an adjacent area utilised for overflow parking.

The location of the site within the zoo is shown in **Figure 2**.

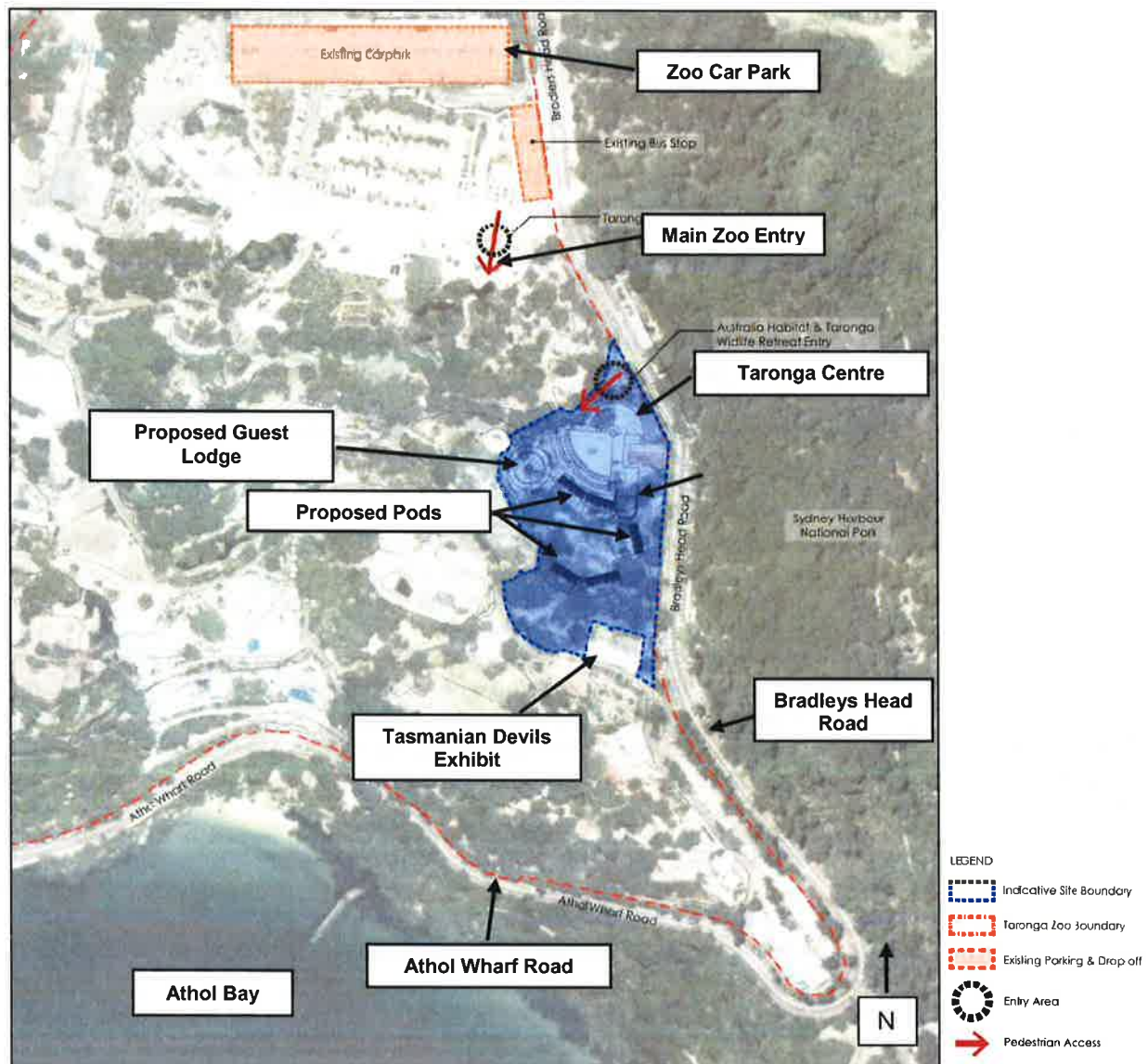


Figure 2: The site (shown shaded blue) (Base source: Architectural Plans)

2. PROPOSED DEVELOPMENT

2.1 Development Description

The key components and features of the proposal, as refined in the Response to Submissions (RTS) (refer to **Section 4.4**), are provided in **Table 1** below and are shown in **Figures 3 to 5**.

Table 1: Key components of the SSD application

Aspect	Description										
Demolition and relocation works	<ul style="list-style-type: none"> Demolition of existing structures including the Harbourview Garden Court and terrace, toilet block, back-of-house structures and a portion of the south-eastern façade of the Taronga Centre; demolition works also include part of the heritage listed rustic garden bed wall, parts of the layout of the early pathways and the existing Australian Section 2 landscaping; relocation of the Circular Kiosk; realignment of Taronga Centre vehicular turning circle and provision of five short-term parking spaces in association with the wildlife retreat; and upgrades to services and relocation and augmentation of services where required. 										
Built form	<ul style="list-style-type: none"> Construction of a wildlife retreat comprising: <ul style="list-style-type: none"> five accommodation buildings ('pods') to the south of the existing Taronga Centre ranging between two and four storeys in height and connected by elevated walkways; a new four storey (including one partially subterranean level) addition to the existing Taronga Centre to accommodate staff amenities, back of house areas, new kitchen, restaurant and terrace; and a new part one/part two storey guest lodge to the south-west of the existing Taronga Centre to house reception, bar, storage and guest interaction facilities with adjacent exhibits. construction of a new native Australian wildlife exhibit including: <ul style="list-style-type: none"> a kangaroo exhibit; a platypus exhibit; a walkthrough aviary; a walkthrough 'sanctuary exhibit' containing native Australian wildlife; landscaping, including naturalistic and endemic native Australian vegetation; new exhibit pedestrian pathway and public viewing platform; and interpretive and directional signage. alterations to the existing Taronga Centre including new two storey glazed atrium housed within the footprint of the existing centre allowing enlarged lobby space. The new lobby will include additional stairs and guest lift. 										
Retreat use and associated facilities *	<ul style="list-style-type: none"> The proposed wildlife retreat and associated facilities comprise: <ul style="list-style-type: none"> a total of 62 guest accommodation rooms/suites (capacity for approximately 131 guests); a restaurant with a capacity of 100 persons on level 1 of the proposed Taronga Centre extension; a dining/function area and outdoor terrace with a capacity for 150 guests on level 2 of the proposed Taronga Centre extension; and a bar and lobby/reception area with a capacity of 100 persons within the proposed guest lodge. 										
Trees and landscaping	<ul style="list-style-type: none"> Removal of 77 trees within the site; and landscaping works including minimum planting of 80 trees. 										
Proposed operating hours	<ul style="list-style-type: none"> The proposed operating hours are: <table> <tr> <td>Retreat accommodation</td><td>24 hours per day, 7 days per week</td></tr> <tr> <td>Restaurant</td><td>6 am-1 am, 7 days per week</td></tr> <tr> <td>Guest lodge (lobby/reception)</td><td>24 hours per day, 7 days per week</td></tr> <tr> <td>Guest lodge (bar area)</td><td>6 am-1 am, 7 days per week</td></tr> <tr> <td>Function area and terrace</td><td>6 am-1 am, 7 days per week</td></tr> </table> 	Retreat accommodation	24 hours per day, 7 days per week	Restaurant	6 am-1 am, 7 days per week	Guest lodge (lobby/reception)	24 hours per day, 7 days per week	Guest lodge (bar area)	6 am-1 am, 7 days per week	Function area and terrace	6 am-1 am, 7 days per week
Retreat accommodation	24 hours per day, 7 days per week										
Restaurant	6 am-1 am, 7 days per week										
Guest lodge (lobby/reception)	24 hours per day, 7 days per week										
Guest lodge (bar area)	6 am-1 am, 7 days per week										
Function area and terrace	6 am-1 am, 7 days per week										
Gross floor area	<ul style="list-style-type: none"> A total additional gross floor area (GFA) of 4,395 m², comprising: <ul style="list-style-type: none"> - 4,150 m²: retreat and Taronga Centre southern extension; and 										

	- 245 m ² : alterations to existing Taronga Centre (new atrium and lobby).
Capital investment value (CIV)/Jobs	<ul style="list-style-type: none"> • CIV of approximately \$44.5 million. • 250 construction jobs. • 38 operational jobs.

* The Applicant has confirmed it does not seek to increase the maximum number of guests attending existing weddings and business events held on the site.

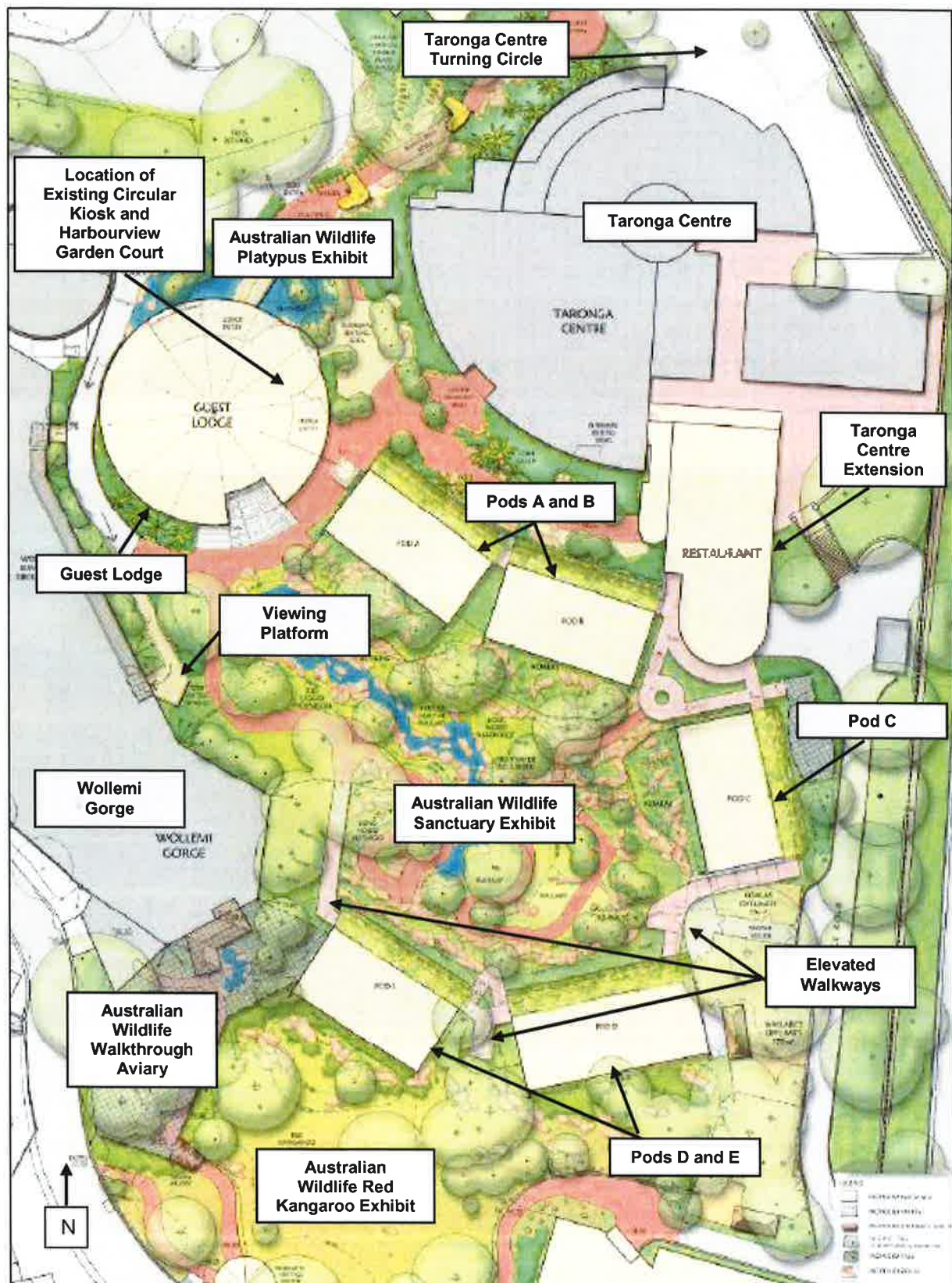


Figure 3: Proposed development (Base source: Landscape Design Report)



Figure 4: Proposed Sanctuary Exhibit (Source: Landscape Design Report)



Figure 5: Proposed Sanctuary Exhibit Platform (Source: RTS)

2.2 Taronga Zoo Development Program

The proposed development forms part of 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 the zoo. As part of this program, the Department of Planning and Environment (the Department), under delegation, recently approved a Sumatran Tiger exhibit (SSD 6864) on 12 November 2015 and the Taronga Institute of Science and Learning Centre (TISL) (SSD 7311) on 29 July 2016.

3. STATUTORY CONTEXT

3.1 State Significant Development

The proposal is a SSD pursuant to section 89C of the EP&A Act as it is development located at Taronga Zoo with a CIV in excess of \$10 million under clause 2(h) of Schedule 2 of the *State Environmental Planning Policy (State and Regional Development) 2011*. Therefore, the Minister for Planning is the consent authority.

3.2 Permissibility

Taronga Zoo is zoned "SP1 Zoological Gardens" under the *Mosman Local Environmental Plan 2012* (MLEP 2012). While development for the purpose of "Zoological Gardens", including any development that is ordinarily incidental or ancillary to development for that purpose, is permitted with consent in the zone, the MLEP 2012 does not define the term "Zoological Gardens".

While Mosman Council (Council) has raised concerns regarding the permissibility of the wildlife retreat, the Department considers the use to be ordinarily incidental and ancillary to the use of the site as a zoo and is therefore permissible.

The Department considers the proposed works to create the new Australian wildlife exhibit and associated works are permissible with consent. Further consideration of this issue is detailed in **Section 5.3**.

3.3 Delegated Authority

The application can be determined by the Executive Director, Key Sites and Industry Assessments under delegation as:

- the relevant local council has not made an objection;
- a political disclosure statement has not been made; and
- there are less than 25 public submissions in the nature of objections.

3.4 Environmental Planning Instruments

The Environmental Planning Instruments (EPIs) that apply to the site include:

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

MLEP 2012 does not contain mandated development controls (such as height and floor space ratio) for the zoo due to the highly specialised nature of the land use.

Under SREP 2005, the site is identified as a 'Strategic Foreshore Site'. The SREP states that development consent must not be granted for the carrying out of development on a strategic foreshore site unless there is a master plan for the site, and the consent authority has taken the

master plan into consideration. Taronga Zoo has an approved master plan (prepared and adopted in 2002 by the then Minister for Planning) comprising the following suite of documents:

- Zoo 2000 'The View to the Future' – December 1999 (Zoo 2000);
- Taronga Zoo Master Plan Urban Design Principles and Visual Analysis – May 2001; and
- Taronga Zoo Conservation Strategy – July 2002.

Consistency with the EPIs is discussed in relation to key issues in **Section 5** of this report and the Department's detailed consideration of the proposal against the EPIs is provided in **Appendix C** of this report. The Department is satisfied the application complies with the relevant provisions of the EPIs.

3.5 Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects set out in section 5 of that Act. Decision-makers are required to consider the objects in Section 5 of the EP&A Act when making decisions under that Act. The Department has considered the objects of the EP&A Act in **Table 2** and is satisfied that the proposal complies with all objects.

Table 2: Compliance with EP&A Act objects

Objects of the EP&A Act	Consideration	Complies?
<i>(a) to encourage:</i>		
<i>(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment</i>	The proposal does not impact on natural and artificial resources as it involves the development within an area long established as a zoo. The proposal will enhance economic and social welfare through improving and expanding facilities at a long-established cultural and environmental institution.	Yes
<i>(ii) the promotion and co-ordination of the orderly and economic use and development of land</i>	The proposed land use is permitted and the merits of the proposal are considered in Section 5 .	Yes
<i>(iii) the protection, provision and co-ordination of communication and utility services</i>	The EIS includes an Infrastructure Services Report that considers the impact of the proposal on the zoo's existing communication and utility services.	Yes
<i>(iv) the provision of land for public purposes</i>	The proposal is for a new animal and habitat exhibit and wildlife retreat associated with a zoo on public land.	Yes
<i>(v) the provision and co-ordination of community services and facilities</i>	The proposal is for a new animal and habitat exhibit and wildlife retreat available to a range of zoo visitors and guests.	Yes
<i>(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats</i>	The proposal will have a positive impact on the conservation and protection of animals through provision of an improved animal and habitat exhibit. The wildlife retreat which will also allow for an improved ability for the zoo to provide an immersive environmental education experience. Impacts on trees within the site are discussed in Section 5 .	Yes
<i>(vii) ecologically sustainable development (ESD)</i>	Section 3.6 of this report considers the proposal against the principles of ESD.	Yes
<i>(viii) the provision and maintenance of affordable housing</i>	The proposal does not involve the provision or maintenance of affordable housing.	N/A

(b) <i>to promote the sharing of the responsibility for environmental planning between the different levels of government in the State</i>	The proposal is SSD in accordance with the SRD SEPP. The Department consulted with Council and other relevant agencies on the proposal.	Yes
(c) <i>to provide increased opportunity for public involvement and participation in environmental planning and assessment.</i>	Section 4 sets out details of the Department's public exhibition of the proposal.	Yes

3.6 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD from the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle;*
- (b) *inter-generational equity;*
- (c) *conservation of biological diversity and ecological integrity; and*
- (d) *improved valuation, pricing and incentive mechanisms.*

The EIS has considered and addressed ESD principles as they relate to the proposal. This describes the Applicant's approach to integrating energy efficient technologies and sustainable practices in the design, construction and ongoing operation of the development.

The Department has assessed the proposed development in relation to the ESD principles and has made the following conclusions:

- **Precautionary Principle** - the proposal will not result in any serious or irreversible environmental damage, as:
 - the site is already developed and has been appropriately planned for development;
 - the location of the site encourages sustainable transport choices as it is well served by public transport;
 - the proposal includes a detailed stormwater management strategy; and
 - the proposal includes measures to reduce water, energy and waste through a mixture of passive design and efficient systems in order to achieve the target of a 5 Star Green Star Design rating.
- **Inter-Generational Equity** – the proposal will not result in adverse impacts on the health, diversity and productivity of the environment for the benefit of future generations, as:
 - the proposal will not result in any serious or irreversible environmental damage, as detailed above; and
 - the proposal considers existing environmental impacts in the area such as tree loss.
- **Biodiversity Principle** – the proposal will have no significant impact on biodiversity or ecological value. Although the proposal will remove 77 trees within the site, a comprehensive landscaping scheme is proposed which includes the planting of a minimum of 80 locally indigenous trees. The new wildlife exhibit with native Australian fauna will further enhance the ecological value of the site.
- **Valuation Principle** – the proposal includes a number of energy, water and waste reducing measures that will reduce the ongoing operating costs of the development.

Having considered the objects of the EP&A Act, including the encouragement of ESD in its assessment of the application, the Department is satisfied the proposal encourages ESD.

3.7 Secretary's Environmental Assessment Requirements

In accordance with section 78A (8A) of the EP&A Act, the Secretary notified the applicant of the Secretary's Environmental Assessment Requirements (SEARs) for the SSD application. The

Department is satisfied the Applicant's EIS adequately addresses compliance with the SEARs to enable the assessment of the application for determination purposes.

3.8 Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) cited in this report, the requirements for notification (Part 6, Division 6 of the EP&A Regulation) and fees (Part 15, Division 1AA of the EP&A Regulation) have been complied with.

3.9 Strategic Context

The Department considers the proposal is consistent with the following State strategies:

- the objectives of *NSW 2021* (the State Plan) via the creation of 250 full time equivalent jobs during construction and 38 full time jobs during operation;
- the objectives of *A Plan for Growing Sydney* including the key goal to strengthen Sydney's competitive economy. This goal includes supporting priority economic sectors, including tourism and the visitor economy; and
- will enhance the established Eastern City identified in the draft *Towards our Greater Sydney 2056* through economic development.

3.9.1 Greater Sydney Commission (GSC) and Draft District Plan

The GSC's role is to coordinate and align planning to shape the future of Greater Sydney. The GSC is currently preparing District Plans to inform local council planning and influence the decisions of State agencies. The aim of the District Plans are to connect local planning with the longer-term metropolitan planning for Greater Sydney. The draft District Plans will commence public exhibition early in 2017.

Taronga Zoo is located within the North District and the *Draft North District Plan* includes six key productivity priorities of which 'growing the tourist economy' is most relevant to the proposed development.

The proposal is consistent with this priority as Taronga Zoo is a significant tourist attraction for local, interstate and overseas visitors. The zoo and Taronga Western Plains Zoo attract 1.7 million visitors annually and contribute an estimated annual \$250 million into the NSW economy. The proposed works will provide a new wildlife exhibit and expand overnight accommodation thus allowing the opportunity for greater immersive experiences for guests. Investments in Taronga Zoo will strengthen Sydney's tourism sector.

The Department considers the proposed works are consistent with the primary public function of the zoo and will include additional wildlife experience opportunities for visitors (see **Appendix C**).

4. CONSULTATION

4.1 Exhibition

The Department publically exhibited the application for 47 days from 7 April 2016 until 23 May 2016. The application was publically available on the Department's website, at the Department's Information Centre and at Council offices.

The Department also advertised the proposal in the *Sydney Morning Herald*, *The Daily Telegraph* and the *Mosman Daily* on Wednesday 6 April 2016 and notified adjoining landholders and relevant State and local government authorities in writing.

The Department received 10 public authority submissions and 26 public submissions in response to the exhibition. Two further public submissions were received after the close of exhibition. The submissions received are summarised below and a link to all submissions is provided at **Appendix B**. The Department has considered the comments raised in submissions in the assessment of the application in **Section 5** of this report and/or by way of recommended conditions in the attached instrument of consent at **Appendix A**.

4.2 Public Authority Submissions

The submissions from public authorities are summarised in **Table 3** below.

Table 3: Summary of public authority submissions

Mosman Council (Council)
Council does not object but raised the following issues:
<ul style="list-style-type: none"> the 'eco-tourist facility' is not a use that is 'ordinarily incidental' to the permitted use as a 'zoological garden' and is not consistent with the <i>Zoological Parks Board Act 1973</i>; Taronga Zoo is on public land and any development on the land must ensure equitable access is not compromised; the submitted Traffic Impact Assessment does not consider the potential impact on parking rates in streets adjacent to the zoo; significant trees are proposed for removal that do not sit within the footprint of the proposed buildings and should be retained; concern with allowing construction vehicles to access the site from 6 am Monday to Friday and from 7 am Saturdays. Recommends truck access should be limited to 7 am Monday to Friday and from 8 am Saturdays in accordance with Council's standard construction hours; and due to the number of construction projects at the zoo, there will be an overlap which may result in greater impacts on traffic and parking.
Transport for NSW (TfNSW)
TfNSW does not object to the proposal and no comments or recommendations were provided.
Roads and Maritime Services (RMS)
RMS does not object to the proposal and no comments or recommendations were provided.
Environment Protection Authority (EPA)
The EPA does not object but raised the following issues:
<ul style="list-style-type: none"> the submitted Noise and Vibration Assessment does not adequately assess potential noise impacts to neighbouring residential properties including impacts from traffic, amplified music and predictable behaviour of function centre, terrace, bar and restaurant patrons. A comprehensive quantitative assessment of noise impacts associated with operation of the new facilities should be provided; and the proposal will need to satisfy requirements in relation to management of asbestos wastes.
Office of Environment and Heritage (OEH) – Planning & Aboriginal Heritage
OEH does not object to the proposal and no comments or recommendations were provided.
Office of Environment and Heritage (OEH) – Heritage Division
OEH does not object to the proposal and notes the proposal does not affect any places listed on the State Heritage Register.
Sydney Water
Sydney Water does not object to the proposal and noted that detailed water and wastewater requirements would be addressed at the Section 73 certificate application phase.
Fire and Rescue NSW (FRNSW)
FRNSW notes the site is located within a designated bush fire prone area and that in the proposed configuration, there is potential for a bushfire to cause significant property loss. To minimise potential for life and property loss, a number of recommendations were provided for consideration. These related to:
<ul style="list-style-type: none"> protection of combustible timber facades; protection of openings including automatic closure during bushfire incidents; appropriately located fire hydrant system; installation of appropriate pedestrian pathways from the roadways to the fire hydrants; and

- the facility's emergency plan considers the specific needs of disabled occupants.

NSW Rural Fire Service (RFS)

The RFS supports the comments and recommendations of FRNSW including additional protections for external combustible timber facades and ember protection. Conditions recommended in the event consent is granted.

Department of Primary Industries (DPI)

The DPI does not object to the proposal but noted it would consider the appropriateness of animal related parts of the proposal through its assessment role under the *Exhibited Animals Protection Act 1986*. Potential concerns were however raised in relation to the future welfare of animals in this precinct on the basis of:

- noise management within the area;
- the close proximity of members of the public to some animals and how this may interfere with their natural behaviour;
- shading from the buildings that appears to reduce access to natural sunlight; and
- the selection of species to be housed in the area.

4.3 Public Submissions

A total of 26 public submissions were received during the exhibition of the application, 22 of which raised objections to the proposal. Two further submissions objecting to the proposal were also received after the exhibition period. Of the 24 total objections received, 10 objections were submitted by residents living in the streets in close proximity of the site. The issues raised in the 24 public objections are summarised in **Table 4**.

Table 4: Summary of key issues raised in public submissions objecting to the proposal

Issue	Proportion of submissions
Increased traffic	54%
Lack of parking/increased parking issues on residential streets	54%
Height of buildings/out of character with the area	42%
Hotel/commercial uses not appropriate for zoo	42%
Will reduce capacity of land for animals including back of house areas/ will impact adversely on animals	38%
Loss of trees	29%
Reduced public access and amenity/ will only be available for those who can afford it	29%
Overdevelopment/zoo already overdeveloped	17%
Increased pollution/littering	13%
Construction noise including construction traffic noise/ simultaneous developments on the site will increase impacts	13%
Increased operational and traffic noise impacts	13%

Three public submissions were received that did not object to the proposal but raised the following general comments on the proposal:

- concerns regarding increased traffic congestion and increased parking difficulties in the area; and
- concerns regarding traffic management during construction.

One public submission was received in support of the application. The submission included a request that the path to Sirius Cove should be upgraded as part of the development.

4.4 Response to Submissions

On 12 October 2016, the Applicant lodged its RTS report to address issues raised in submissions and provided the following additional information:

- landscape information;
- addendum to Heritage Impact Statement;
- addendum to Transport Impact Assessment;

- revised Noise and Vibration Assessment;
- Native Fauna Curator Response (in relation to Red-crowned Toadlet);
- Fire Safety Strategy;
- Bush Fire Safety Strategy;
- flooding Response; and
- revised BCA Statement.

The RTS was also accompanied by supplementary plans and revised architectural plans. The amendments to the original plans were minor and comprised the following:

- revised guest rooms wall widths and associated minor adjustments to egress stair locations;
- additional solar panels to Taronga Centre extension;
- simplification of terrace roof overhang;
- confirmation that the lift overrun of Taronga Centre extension will be 300 mm higher than the lift overrun for the existing Centre; and
- rectification of minor plan discrepancies.

The Department placed copies of the RTS on its website. The RTS was referred to Council, the EPA, DPI, FRNSW and the RFS for comment as public authorities that made substantial submissions to the EIS exhibition. The submissions from public authorities to the RTS are summarised in **Table 5** below.

Table 5: Summary of RTS public authority submissions

Council
Reiterated concerns in relation to permissibility of use, suitability of use for public land, traffic and parking, tree loss, construction impacts and inconsistency of the proposed use with the <i>Zoological Parks Board Act 1973</i> . In relation to parking, Council recommended that 69 on-site parking spaces be specifically reserved for use by the hotel. In addition, Council raised new concerns in relation to the visual impact of the Taronga Centre addition from when viewed from Cremorne Point and the incongruous built form of the four storey accommodation buildings with the objectives of the scenic protection area, the use of the site as a zoo and the context of other development in the vicinity.
EPA
RTS adequately responds to issues raised and recommends conditions. However, the EPA note that the predicted noise level for night-time activity within the car park will exceed the sleep disturbance criterion by 3dB. As such, additional noise mitigation measures are required or a condition should be imposed restricting any use of the car park between 10 pm and 7 am.
DPI
Reiterated concerns in relation to noise management, frequent close proximity of members of the public to some animals and shading from the buildings.
FRNSW
The RTS satisfactorily responds to previous comments with the exception of the location of pedestrian pathways to link the internal road network to the fire hydrants located around the proposed buildings. This matter is to be addressed by condition.
RFS
It is necessary for the emergency refuge building to be upgraded to comply with ember protection requirements. Suitable directional signage to the refuge building is also required and the landscape scheme must incorporate principles in <i>Planning for Bushfire Protection 2006</i> .

The Applicant subsequently provided further additional information in relation to landscaping, visual analysis, heritage, noise and fire safety.

5. ASSESSMENT

5.1 Section 79C Evaluation

Table 6 identifies the matters for consideration under section 79C of the EP&A Act that apply to SSD. The EIS has been prepared by the Applicant to consider these matters and those matters detailed in the SEARs.

Table 6: Section 79C(1) Matters for Consideration

Section 79C(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Satisfactorily complies – see Section 3.4 and Appendix C of this report.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan (not applicable to SSD)	Whilst Development Control Plans (DCPs) do not apply to SSD applications, consideration has been given to the Sydney Harbour Foreshores & Waterways DCP in Appendix C of this report.
(a)(iia) any planning agreement	Not applicable.
(a)(iv) the regulations	Complies – see Section 3.8 of this report. The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to development applications, public participation procedures for SSDs, and Schedule 2 of the Regulation relating to environmental impact statements.
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development	Impacts of the development have been considered in Section 5 of this report.
(c) the suitability of the site for the development	The suitability of the site has been considered in Section 1 of this report.
(d) any submissions	Consideration has been given to submissions received during the exhibition period in Section 4 of this report. Key issues raised in submissions have been considered further in Section 5 of this report.
(e) the public interest.	The public interest of the development has been considered in Section 5 of this report.
Biodiversity values exempt if:	
(a) On biodiversity certified land?	Not applicable
(b) Biobanking Statement exists?	Not applicable

5.2 Key Assessment Issues

The Department considers the key environmental assessment issues related to the application include:

- proposed use;
- use of public land/ equitable access;
- built form;
- visual impact;
- tree removal and landscaping;
- traffic and car parking;
- heritage; and
- animal welfare.

Each of these key issues is discussed in the following sections of the report. **Section 5.10** of the report discusses the other issues that were taken into consideration by the Department in the assessment of the application.

5.3 Proposed Use

Permissibility

The application includes the construction and use of a wildlife retreat comprising five accommodation buildings, a new guest lodge and an addition to the Taronga Centre. Facilities include 62 accommodation rooms/suites, a restaurant, dining/function area, terrace, bar and reception area.

Council has raised concerns regarding the permissibility of the wildlife retreat and questions whether the proposed development would be ancillary or ordinarily incidental to the existing use as a "Zoological Gardens".

The Applicant considers the proposed use is ordinarily incidental to the use of the zoo as the proposed wildlife retreat seeks to provide an immersive accommodation wildlife experience, specifically with Australian wildlife exhibits. A set of pre-planned natural and cultural wildlife experiences are proposed, including:

- hands-on encounters with small reptiles, mammals and invertebrates;
- dinner in the retreat restaurant, served on large communal tables with zoo hosts at each table to engage with guests on wildlife and conservation;
- post-dinner or pre-breakfast tour of the zoo, viewing and learning about animals in their exhibits and local indigenous culture; and
- evening or morning sanctuary exhibit tour.

Self-guided access to the sanctuary exhibit will also be available with guided experiences available at varying times of the morning and evening to provide for flexible arrival and departure times. It is proposed access to the zoo would be included in the single price.

The proposed restaurant, terrace and guest lodge (including bar) will not be open to the general public and will service only guests staying within the proposed retreat or those attending corporate and business events and wedding functions which currently operate within the Taronga Centre and adjacent Harbourview Garden Court.

The Department notes the Land and Environment Court (*Health Administration Corporation v Ryde City Council & Anor [2005] NSWLEP 507*) has previously determined that for a use to be 'ordinarily incidental' to another use, it does not have to be ordinarily incidental to that particular development, but rather to the type of development generally. The Land and Environment Court also found in the same matter that a land use that is ordinarily incidental can be a separate and significant use of the site.

The Department considers the proposed wildlife retreat can be suitably defined as an 'eco-tourist facility' as it provides short-term accommodation to visitors on a commercial basis within the zoo which constitutes a special ecological or cultural feature. The Department notes eco-tourist/accommodation facilities are a common feature within a number of other zoos within Australia and around the world, including Western Plains Zoo in Dubbo (tents, cabins and lodge), the National Zoo in Canberra (lodge, tree houses and bungalows), Wellington Zoo, New Zealand (communal lodge) and Whipsnade Zoo, England (individual lodges). As such, the proposal is considered to be consistent with similar ordinarily incidental uses within various other zoos within Australia and around the world.

The Department notes the proposal will be an ancillary form of development that does not undermine the primary use of the zoo for the following reasons:

- the area utilised for visitor accommodation will occupy 0.7% of the overall zoo grounds;
- guests of the wildlife retreat will be able to experience wildlife exhibits;
- the number of guests (assuming full capacity 365 nights per year) represents 4% of the current number of zoo visitors;

- the 38 operational jobs associated with the proposed use would be a small proportion of the overall number of staff currently employed at the zoo;
- the intensity of use will be minor in comparison to the existing zoo operation;
- the predominant utilisation of existing back of house and service areas (i.e. areas that are not currently accessible to the public) to provide additional exhibit space; and
- the ability of the proposed accommodation structures to fit sympathetically within the existing landscaped character of the zoo.

The Department considers the proposed development will complement and serve the existing dominant use of the site as a zoo rather than form a dominant use in its own right. The Department also notes the zoo currently accommodates the following similar ancillary uses:

- an overnight accommodation program known as *Roar and Snore* which offers an immersive interpretive wildlife program for up to 51 people to stay in tents. The program (and associated works) was approved by Mosman Council in 2006 and runs on Friday, Saturday and Sunday nights throughout the year with additional nights offered during school holidays and in peak tourist seasons;
- at the time of approval of the *Roar and Snore*, the site was identified on the Mosman Local Environmental Plan 1998 zoning map as 'Community Uses 5(a) – Zoological Gardens' and was approved on the basis the accommodation proposal was ancillary to the *Zoological Gardens* use and was permissible with consent;
- the *ZoosnooZ* educational learning program has operated at the zoo since 1995. On 29 July 2016, the Department approved, under delegation, the TISL. This included a new facility for 42 primary school students to stay overnight in the classroom;
- on 2 August 2016, Council approved the temporary pitching of four person tents and the use of two existing buildings to accommodate a maximum of 120 guests for up to 66 nights per year during the TISL redevelopment works; and
- the zoo currently operates a number of functions within the Taronga Centre including weddings, business events and school formals. Weddings are also held at the Harbourview Garden Court and terrace (which are to be demolished as part of the proposed development). The Applicant has advised that an average of 60 weddings are currently held each year.

The Department concludes the proposed wildlife retreat and associated uses are both ordinarily incidental and ancillary to the existing use of the site and is permissible with consent in the zone.

Zoological Boards Act 1973

Council has also raised concerns regarding the consistency of the proposal with the *Zoological Parks Board Act 1973* (Zoological Act) as it is not considered necessary for people to stay overnight in high quality visitor accommodation to achieve the four key purposes of the Act which are:

- carrying out research and breeding programs for the preservation of endangered species;
- carrying out research programs for the conservation and management of other species;
- conducting public education and awareness programs about species conservation and management; and
- displaying animals for educational, cultural and recreational purposes.

In response to Council's concerns, the RTS states the proposal will improve public awareness of species conservation and management and also will provide for the improved display of animals and habitat for educational and cultural purposes. The RTS further notes that the Zoological Act also allows for the zoo to provide educational services to the public and may provide and charge for such services.

The Department considers the proposal is consistent with the Zoological Act as it will provide for the display of animals and allow for increased awareness of species conservation and management. The wildlife retreat will be intrinsically linked with the zoo both in form and operation. This includes the interrelationship of the proposed wildlife retreat with the proposed exhibits and zoo access included in all bookings as detailed in **Section 5.3**. While guests may choose not to

participate in any of the included wildlife activities or visit the zoo, the Department notes that the design and operation of the facility centres around interactive wildlife experiences as a key attraction. Therefore, the likelihood of this occurring is considered by the Department to be minimal. As such, the predominant use of the wildlife retreat/eco-tourist facility would not constitute a separate 'resort' or hotel within the zoo grounds. The proposed wildlife retreat is therefore not considered to derogate from the key purposes of the Zoological Act. The proposal is also consistent with existing accommodation opportunities currently available at Taronga Western Plains Zoo.

5.4 Use of Public Land/ Equitable Access

Public submissions and Council raised concerns in relation to the use of public land for the proposal and whether the development is equitable in terms of public access being restricted by the wildlife retreat and sanctuary exhibit.

The proposed development is to be constructed in an area of the zoo which is predominantly not open to the visiting public and contains various back-of-house uses and storage facilities. Specifically, only 9.8% (1,270 m²) of the site currently contains publically visible exhibit space comprising the existing 'Kangaroo and Quokka Exhibit' and aviaries.

As proposed, approximately 28.6% (3,710 m²) of the site will contain publically visible exhibit space (see **Figure 6**). This will comprise the 'Kangaroo exhibit' (1,286 m²), the walkthrough aviary (293 m²), the 'Platypus exhibit' (157 m²), and the 'sanctuary exhibit' (1,975 m²). The new exhibition areas will also provide improved accessibility compared to the existing exhibits and will be compliant with the *Disability Discrimination Act 1992* (DDA).

The exhibits and walkthrough aviary allow the same access for wildlife retreat guests and day visitors with the exception of the sanctuary exhibit which will allow closer encounters for guests. The RTS states that physical access to this exhibit will not be available to day visitors for practical reasons, notably safety and the protection of animal welfare.

The Department notes the existing zoo exhibits are predominantly viewed from a public viewing area and do not involve physical access within the exhibit i.e. they are publically visible but not physically accessible. The inclusion of physical access to the sanctuary exhibit for the relatively small number of retreat guests is an additional option offered as part of the immersive accommodation experience.

The Department further notes the zoo currently offers additional experiences for day visitors at additional cost to entry. These include the 'Wild Ropes Challenge' and the 'Zoo Adventure Holiday' and 'Keeper for a Day' programs.

Although physical access to the sanctuary exhibit will only be available to retreat guests, this is consistent with existing optional additional experiences currently offered elsewhere at the zoo. The Department also notes the numbers of people within the sanctuary exhibit needs to be limited to enable the intended concept of direct physical access to be viable.

The conversion of existing back-of-house areas will enable an approximate additional 2,440 m² of exhibit space to be publically visible and will improve access to these areas for people with a disability.

The Department concludes the proposal is to be constructed predominantly in an area of the zoo that is not currently open to the public, comprising back of house and storage facilities. The proposal will increase the availability of the land for use by the public and the sanctuary exhibit will not reduce the area of the site that is currently publically visible. Overall, the Department considers the proposal will improve the general visitor experience by providing additional exhibit space and providing immersive experiences that is consistent with existing zoo practice.



Figure 6: Proposed Exhibits Plan (Source: Architectural Plans)

5.5 Built Form

The Department has considered the proposal's form and function within the zoo, relationship to landscaping and topography, relationship to other buildings and visual impact on the zoo's setting from the public domain around Sydney Harbour. Public submissions raised concerns with the height of the proposed buildings, that the buildings will be out of character with the zoo and that the proposal represents overdevelopment of the zoo.

The Built Form and Visual Impact Statement (VIS) provided with the EIS describes how the retreat has been broken into seven relatively small built forms and this fragmentation allows the buildings to wrap around the central exhibit while responding to the fall and existing features across the site. These built form elements are considered separately below.

Accommodation Pods

The proposal seeks to construct five connected accommodation pods to the south of the Taronga Centre. The proposed pods range between two and four storeys in height. The footprint of each of the pods is approximately 198 m² with the exception of pod D which is approximately 256 m². The pods are arranged to step down the slope of the site with the two storey pods (A and B) located at the northern, higher end of the site and the four storey pods (D and E) located at the lower, southern

end of the site. Pod C will extend to three storeys in height. The northern façades (eastern façade of pod C) and roofs of the pods will include native 'green screens' in order to effectively camouflage the buildings and preserve the outlook to the harbour and animal exhibits. **Figures 7 to 10** illustrate the proposed pods.

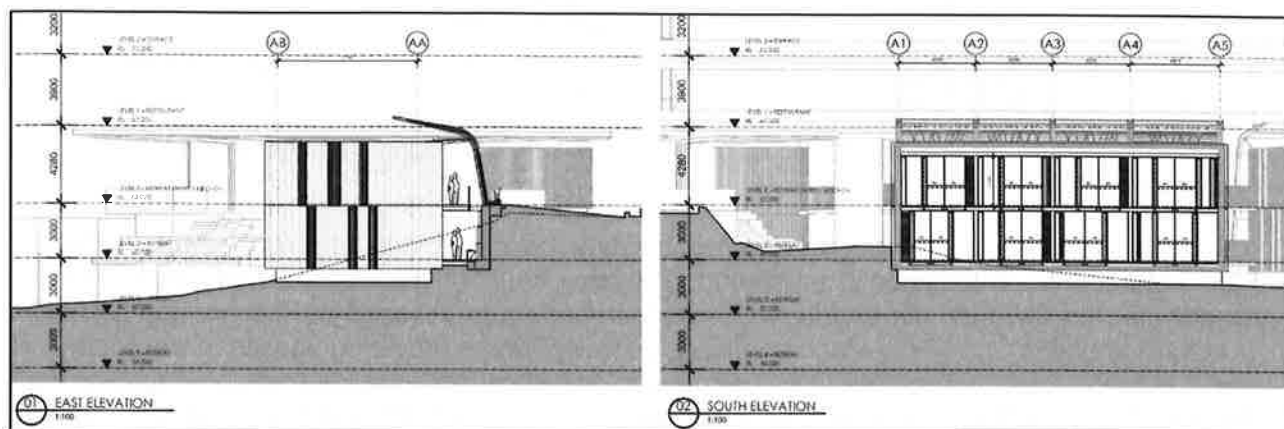


Figure 7: Eastern and southern elevations of two storey Pod A (Pod B is also two storeys) (Source: Architectural Plans)

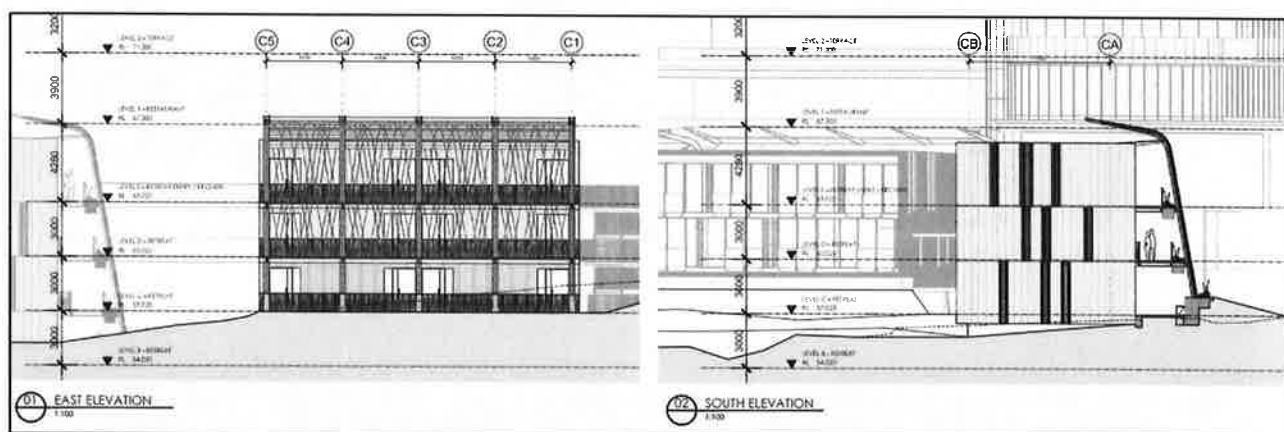


Figure 8: Eastern and southern elevations of three storey Pod C (Source: Architectural Plans)

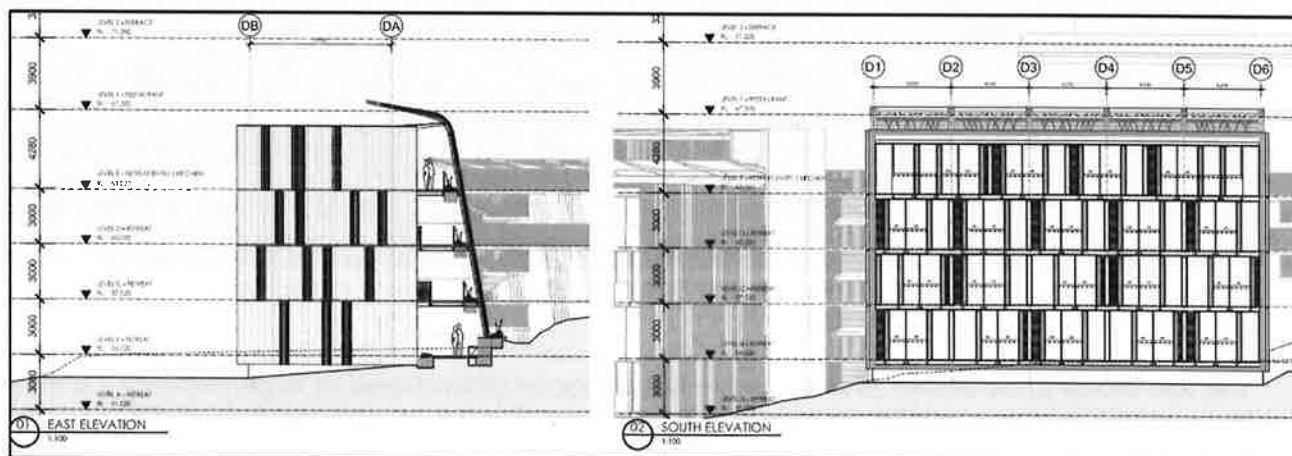


Figure 9: Eastern and southern elevations of four storey Pod D (Pod E is also four storeys) (Source: Architectural Plans)

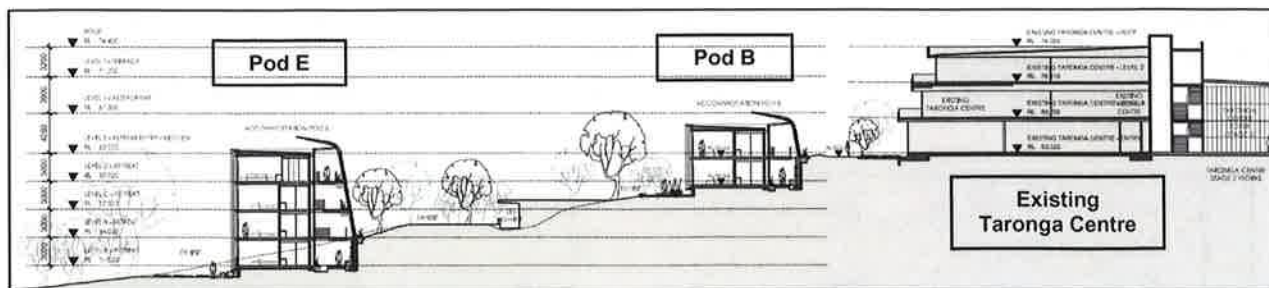


Figure 10: Section of Proposed Pods B and E in relation to existing Taronga Centre (Base source: Architectural Plans)

The accommodation pods include either reconstituted hardwood timber cladding or glazed façades with metal roofing ('Woodland Grey' colour). The pods are to be glazed on the southern elevations, timber clad on the side elevations, with mesh screening to be used on the northern elevations (eastern elevation of pod C) which comprise open walkways providing access to the rooms. The mesh screening will incorporate native planting to provide a 'green screen' which wrap over part of the roof to camouflage the buildings when viewed from the north (east for pod C). **Figure 11** illustrates the proposed screens.



Figure 11: Northern elevations of Pods A and B (foreground) and Pods D and E (background) illustrating proposed green screens (Source: EIS)

The two storey pods extend to a maximum height above ground level of approximately 7.6 m, the three storey pod to a maximum height of approximately 10.6 m, and the four storey pods to a maximum height of approximately 13.8 m (**Table 7**). This excludes the green screen which extends 1 m above the roof level of each pod. Inclusive of the green screen, none of the pods extend beyond a maximum RL of 68.2 (Pods C and D). This is significantly lower than the roof height of the existing Taronga Centre (RL 74.44).

Table 7: Number of storeys, height and maximum RLs of proposed accommodation pods

Pod	Storeys	Maximum height (m) (excluding 1 m green screen)	Proposed maximum RL (excluding 1 m green screen)
A	2	7.6 m	66.7
B	2	7.6 m	66.7
C	3	10.6 m	67.2
D	4	13.8 m	67.2
E	4	13.8m	64.2

The closest point of the nearest pod (Pod C) to Bradleys Head Road is approximately 10 m and will be heavily screened by existing mature trees.

The Department considers the proposed five accommodation pods have been suitably designed to be subservient to the scale of the Taronga Centre, appropriately respond to the topography of the site and are sympathetic to the character of the zoo. The fragmentation of the proposed pods also allows a greater number of trees to be retained and limits potential damage to the roots of trees compared to a singular built form of comparable floorspace. New tree planting will assist in breaking up the visible built form and in shielding the addition when viewed from various vantage points. The effect of the vegetation screen will enhance over time as the new trees mature.

Overall, the Department considers the quality of the built form of the proposed pods and their relationship with neighbouring buildings and the surrounding zoo environment as appropriate and supports the design and siting of the proposed buildings. In addition, the proposed materials and colours are considered appropriate for the bushland setting of the zoo and would assist in integrating the proposed structures sympathetically into the surrounding landscape.

Taronga Centre Addition

The Taronga Centre is located at the higher, northern portion of the site. A new four storey addition (including one partially subterranean level) is proposed to the southern side of the existing Centre. The addition comprises the following:

- lower ground level: plant rooms, staff amenities and back of house areas;
- ground level: kitchen, staff office and amenities;
- level one: restaurant, small kitchen and plating area; and
- level two: dining/function room, plating area and terrace.

Figure 12 illustrates the proposed addition in relation to the existing Taronga Centre and to pods C & D.

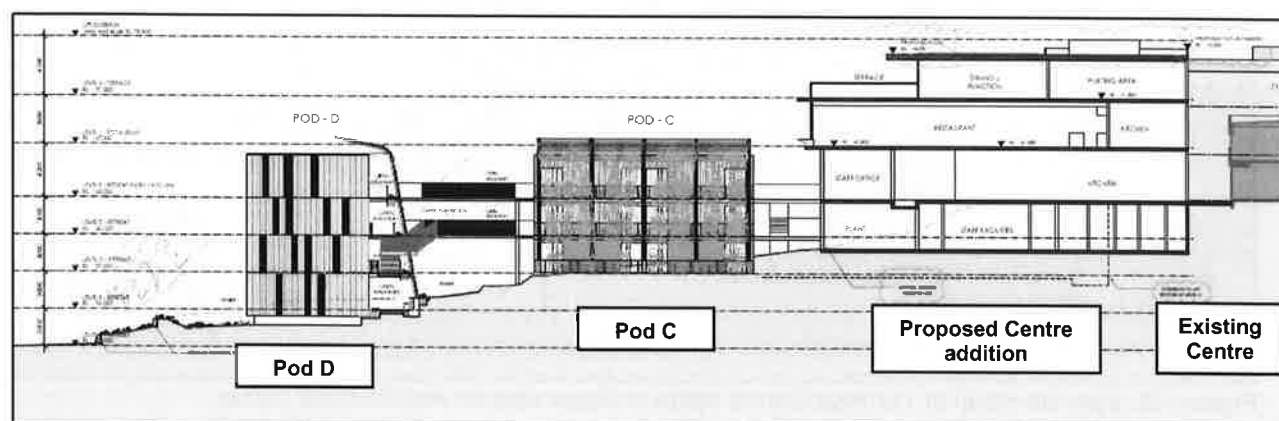


Figure 12: Section of proposed Taronga Centre addition and pods C and D (Base source: Architectural Plans)

The maximum RL and height in metres of the existing Taronga Centre and proposed addition is provided in **Table 8**.

Table 8: Height and GFA of Taronga Centre and proposed addition

	Existing Centre	Proposed Addition	Difference
Maximum height (RL)	74.44 (parapet)	74.75 (roof: southern end) 75.2 (parapet: northern end)	+310 mm (southern end) +760 mm (northern end)
	75.6 (lift overrun)	75.9 (lift overrun)	+300 mm (lift overrun)
Maximum height (metres) above existing ground level	12.58 m	15.8 m	+3.22 m

The parapet height of the proposed addition at the southern side of the Taronga Centre will be approximately 760 mm higher than the height of the existing Taronga Centre. The parapet height then steps down to a roof height of RL 74.75 towards the south. The maximum height above existing ground level will be approximately 15.8 m at the roof of the level 2 terrace. Although this is essentially an extension of the roof plane of the existing Taronga Centre, the approximate 3.2 m increase in overall height occurs as a result of the stepping down of the existing ground level to the south of the Centre (see **Figure 13**).

The ground levels of the addition would comprise timber cladding and blades with a sandstone base. Levels one and two are to be predominantly glazed.

Level two above the restaurant is setback approximately 8.5 m from the southern elevation to reduce the scale of the building in relation to the sloping topography of the site. A portion of the lower floor of the extension is also contained below surrounding ground level which further reduces the visual scale of the addition. The proposed southern elevation is rounded consistent with the character of the existing building.

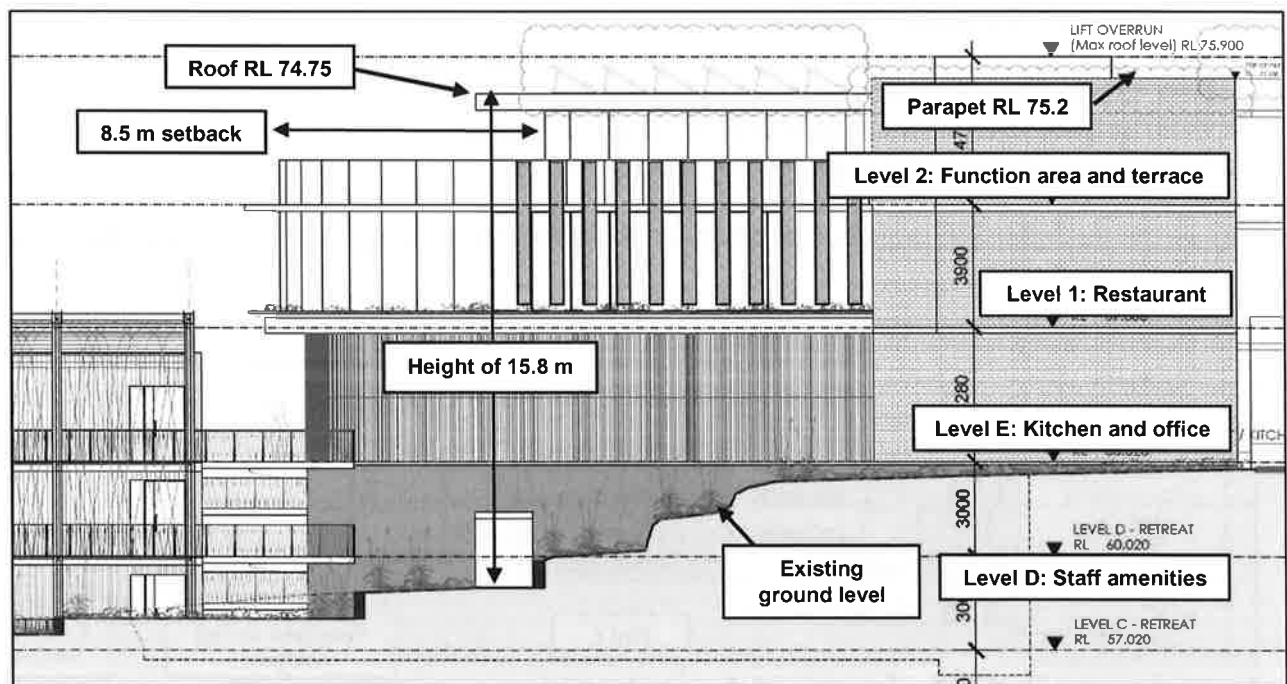


Figure 13: East elevation of Taronga Centre addition (Base source: Architectural plans)

The Department considers the proposed extension to be of a compatible scale to the existing Taronga Centre, noting the proposed maximum RL is consistent with the existing building and the stepping down of the height of the building from north to south as per the sloping topography. Pods B and C are also located respectively to the west and south of the extension which, together with existing and proposed landscaping, will assist in screening the visible façade of the building.

Although the addition will extend up to 310 mm higher than the existing building at its northern end, given the relative minor variation to the overall roof height and the central location of the lift overrun within the roof of the proposed extension, the Department considers there will be no adverse impacts from this aspect of the proposal.

The Department considers the proposed materials are acceptable with regard to the existing Taronga Centre, other proposed buildings and the character of the surrounding area. Although glazing is proposed to the upper level façades, environmentally sensitive design measures outlined in the EIS include initiatives to increase natural ventilation and to reduce heat load and glare.

Guest Lodge

The proposed guest lodge located to the western side of the Taronga Centre on the site of the existing Circular Kiosk comprises a single storey guest area with a partially subterranean lower ground area containing predominantly storage and plant rooms. The structure would extend to a maximum height of approximately 6.9 m (RL 66.9) above existing ground level. It will comprise a mix of timber cladding and glazing on the entry level with the exposed portion of the subterranean level comprising exposed sandstone (**Figure 14**).

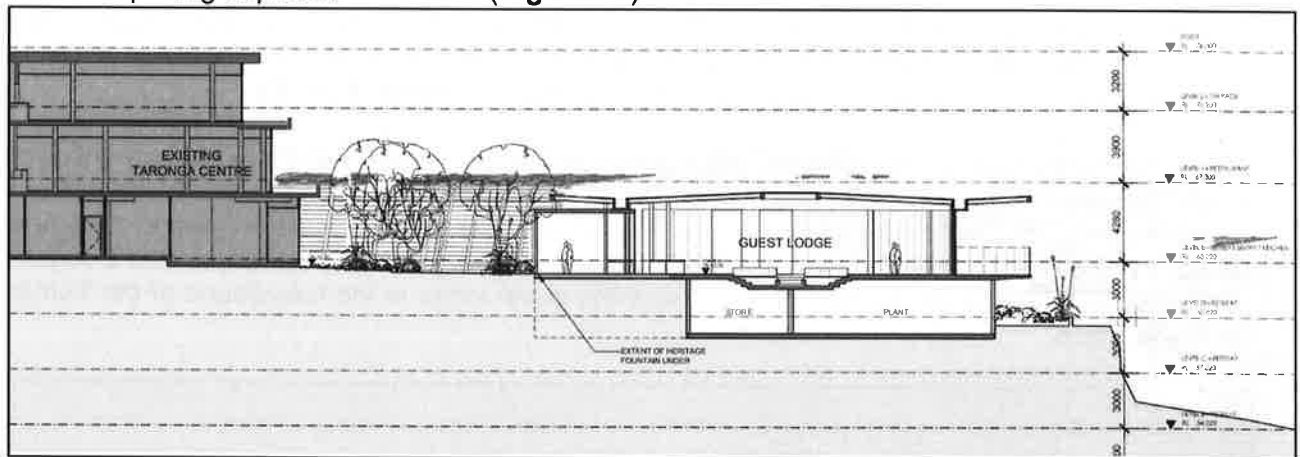


Figure 14: Section of proposed guest lodge in relation to existing Taronga Centre (Source: Architectural Plans)

The Department considers that at a maximum of two storeys in height and with regard to the proposed characteristic materials, the guest lodge will appear as a lightweight structure that will be compatible and sympathetic with the scale of surrounding buildings and will have no adverse impact on the character of the surrounding zoo.

Other Works

The proposed alterations to the existing lobby of the Taronga Centre, including a new two storey glazed atrium, are located within the footprint of the existing building. These works are considered by the Department to be relatively minor in the context of the overall proposed works and raise no concerns in relation to built form.

Overdevelopment

Public submissions have raised concerns the proposal represents overdevelopment of the zoo.

Under MLEP 2012, there are no height or FSR controls applicable to the zoo. The height, size and scale (i.e. built form) of all development proposals must therefore be assessed on their own merit.

The Department notes the relatively small area of the site (approximately 0.7%) to be utilised for visitor accommodation in comparison to the overall size and area of the zoo. The Department considers the proposed five accommodation pods, the extension to the Taronga Centre and the guest lodge to have been suitably designed and sited to respond to the topography of the site and are sympathetic to the character of the zoo and the surrounding landscape.

For these reasons, the Department concludes the proposed development does not represent an overdevelopment of the site.

5.6 Visual Impact

Taronga Zoo's setting makes it a prominent visual landmark from various vantage points on Sydney Harbour and its foreshores. The design of structures should be sympathetic to the zoo's vegetated character and setting as its prominent location would amplify any negative impact.

Council and public submissions raised concerns in regard to the visual impact of the proposal in relation to views of the site from Sydney Harbour.

The EIS states the proposal has been specifically designed to protect the unique visual qualities of the Harbour and includes photomontages taken from the Harbour (Athol Bay) and Bradleys Head Road. The RTS includes a further photomontage from Cremorne Point.

The Department has considered visual impacts of the proposal and considers the key locations outside the zoo are Athol Bay, Cremorne Point and Bradleys Head Road as these have a direct view line to the proposed development. Existing photos and proposed photomontage of the site viewed from Athol Bay and Cremorne Point are provided in **Figures 15 to 18**.

When viewed from Athol Bay (**Figure 16**), only limited upper sections of Pod E will potentially be visible through the site trees from Sydney Harbour. The proposed addition to the Taronga Centre when viewed from Cremorne Point (**Figure 18**) will also be partially visible together with upper sections of Pod E. It is feasible that Pod D may also be partially visible adjacent to Pod E together with glimpses of the upper section of Pod A and the guest lodge in the foreground of the Taronga Centre addition.

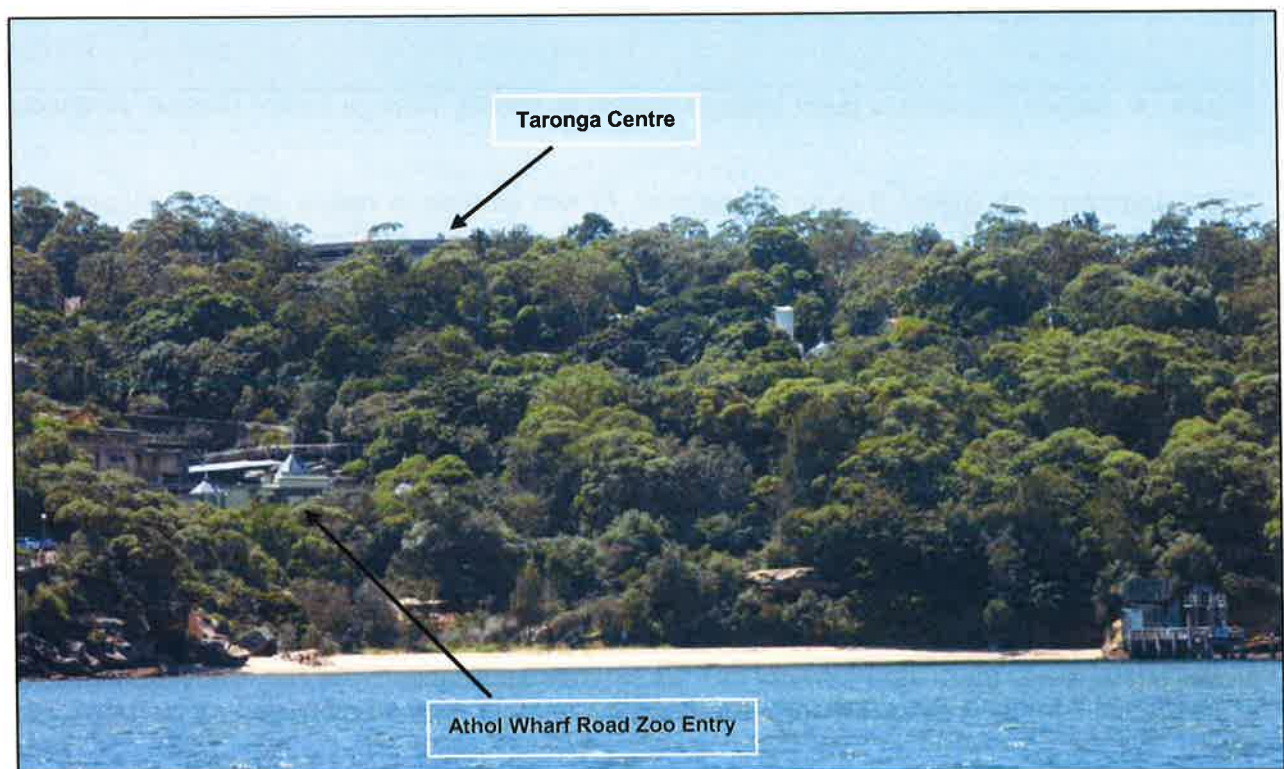


Figure 15: Photo showing existing view from Athol Bay towards the proposed development (Source: Visual Impact Statement)

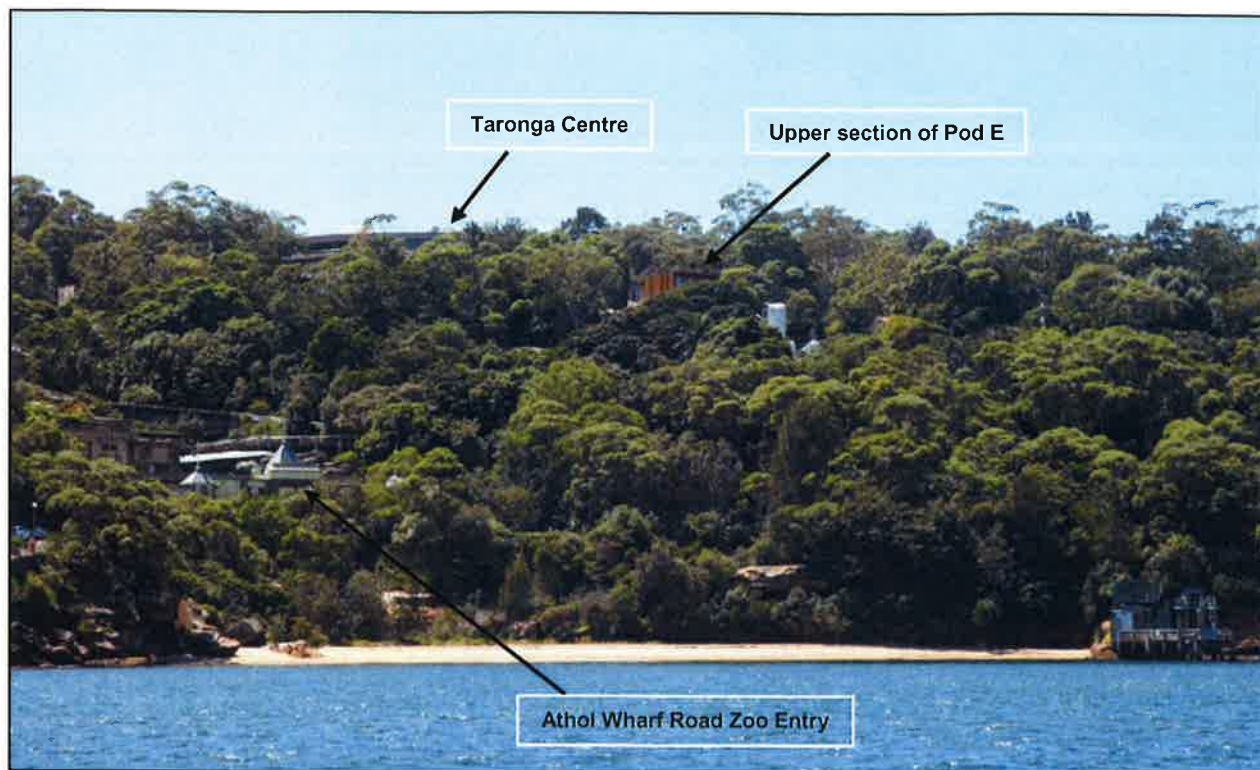


Figure 16: Photomontage showing proposed view from Athol Bay towards the proposed development (Source: Visual Impact Statement)



Figure 17 Photo showing existing view from Cremorne Point towards the proposed development (Source: Appendix C of December 2016 RTS)

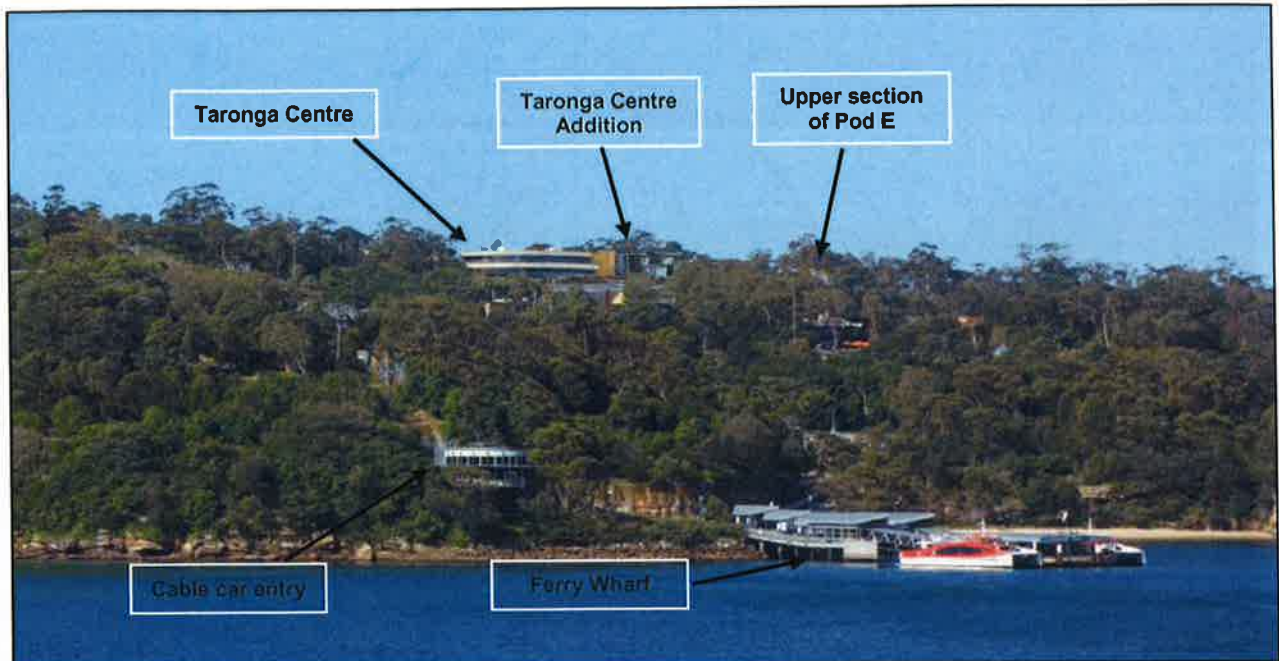


Figure 18: Photomontage showing proposed view from Cremorne Point towards the proposed development (Source: Visual Impact Statement)

The Department considers the visual impact of the development from Athol Bay will be negligible with only relatively minor upper floor elements visible above the tree line. With regard to more distant locations around the harbour and from Cremorne Point, the extension to the Taronga Centre (and to a lesser extent upper elements of the proposed pods), will be more visible. However, the size and scale of the extension is commensurate with the existing Taronga Centre and, together with the minor visible elements of the proposed pods, will not appear visually intrusive or significant when viewed from such vantage points. An existing photo and proposed photomontage of the site viewed from the Bradleys Head Road are provided below as **Figures 19 and 20**.



Figure 19: Photomontage showing existing view from Bradleys Head Road looking north towards the proposed development. (Source: Visual Impact Statement)



Figure 20: Photomontage showing proposed view from Bradleys Head Road looking north towards the proposed development. Outline of proposed development behind the vegetation screen is denoted.
(Source: Visual Impact Statement)

The Applicant notes the photomontages depict a 'worse case' scenario with all trees behind the Wollemi exhibit shown removed and given the significant landscaping proposed, the actual visual impact will be less than shown as some trees will be retained and new tree planting will become more established over time. As detailed in **Section 5.7**, although the proposal does involve the removal of 77 trees, these will be replaced by species initially 3 m to 4 m in height which will achieve heights of 10 m over seven years with further growth in width and height over a further 10 to 15 years. As such, although elements of the proposed buildings may be visible from the Harbour and other locations in the short term, the Department considers the significant highly vegetated nature of the site will remain the predominant visual characteristic and any greater visual impact in the short term will be gradually negated.

There will be minimal visual impact to Bradleys Head Road (**Figure 20**) due to the significant setbacks (minimum of 10 m to the road reserve from Pod C and 16 m from the Taronga Centre addition) and the significant number of large trees located between the road and the proposed buildings being retained. The Department considers that although elements of the development may be visible from Bradleys Head Road through the existing vegetation screen, this would be limited to acceptable potential glimpses of Pod C and top floor of the Taronga Centre addition.

The Department also considers the development is consistent with the urban design principles contained in Zoo 2000 as the development will not materially impact on the present view of 'green vegetation' from the Harbour. In addition, key views from the zoo to the Harbour will be retained, and the setbacks and vegetation screening will minimise any views of the development from Bradleys Head Road. The required balance between preserving the natural bushland setting and contemporary zoo design has been achieved.

The Department therefore concludes no adverse visual impact will occur and the scenic quality of the Harbour foreshore, the site and the overall zoo will be maintained.

5.7 Tree Removal and Landscaping

The zoo contains a mixture of native, endemic and exotic vegetation. This includes remnant native bushland, trees selected for ornamental purposes, and vegetation selected to represent the habitat of animals within the zoo.

Council and public submissions raised concerns in relation to the loss of trees associated with the proposal.

The Arborist Report submitted with the application identifies 219 trees are located within 5 m of the proposed works. Individual trees were assessed and broadly categorised as high value (i.e. of moderate to high significance in good health and condition and likely to be retained for more than ten years) or low value (i.e. of low significance in poor condition and/or likely to be removed within ten years through responsible tree management). Of the 219 trees, **Table 9** provides the category of trees to be removed and retained and replacement trees proposed to be planted.

Table 9: Category value of removed and retained trees and proposed trees

Value	Number retained	Number removed	New trees
High	72	39	Minimum 80
Low	70	38	0
Total	142	77	Minimum 80

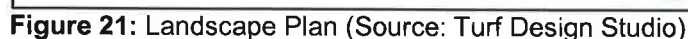
The EIS states the design of the retreat, comprising six separate buildings connected by light-weight bridges, is proposed to protect existing landscaping and trees as much as possible and enable sensitive siting of the structures within the landscape. In particular, the proposed fragmented design of the proposed pods has allowed the retention of a number of significant trees, the footprint of which a larger scale single accommodation building would not allow.

However, the proposal will still require the removal of 77 trees of which 39 have been assessed as having high significance and 38 have been assessed as having low significance. The Arborist Report states the removal of 77 trees is necessary to facilitate the proposal but the proposed comprehensive planting scheme will compensate for their removal. The scheme will consist of locally indigenous trees resulting in an increase in native Australian landscaping and species compared to the existing site which includes substantial back of house and servicing areas.

The proposed concept landscaping/planting scheme includes replacement planting of a minimum 80 new indigenous trees, 70 of which will have a minimum initial planting height of 3 m and 10 of which will have a minimum planting height of 4 m. The planting scheme also includes a significant number of shrubs and groundcover plants. **Figure 21** illustrates the proposed concept landscape plan.

The Landscape Architect has confirmed the new high category trees should have the potential to reach a significant height (10 m) within seven years without excessive inconvenience, will be sustainable in the long term and will significantly improve the potential of the site to contribute to local character and amenity. The replacement trees will gradually replace the amenity of the 'high category' trees to be removed with a greater overall amenity outcome achieved over time by virtue of an additional 41 high category trees being planted.

The trees to be removed include two Section 170 heritage listed trees (197L – Orange Jessamine & 290L – Wisteria) and part of the existing Australian Section 2 landscaping (123L). **Section 5.9** considers the heritage implications of the proposal including the Section 170 listed trees.



The Department has considered the impacts of tree removal and concludes the proposed building design comprising smaller, individual floor plates and elevated walkways suitably reduces the potential impact of the development in terms of the number of trees required to be removed and the root systems of trees to be retained.

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removal will be suitably mitigated by the proposed tree planting and landscaping works. To ensure an appropriate outcome, recommended conditions include requiring approval of a detailed landscape plan by the Secretary prior to the commencement of work (Condition B1) and compliance with the recommendations contained in the Arborist Report (Conditions D8 to D11).

5.8 Traffic and Car Parking

5.8.1 Traffic

The proposed wildlife retreat will contain 62 rooms/suites with a capacity for approximately 131 guests. Notwithstanding the availability of bus and ferry public transport services to the site and the likelihood of some guests arriving by private coach, the use will generate additional vehicular traffic on local roads, notably Bradleys Head Road.

The Traffic Impact Assessment (TIA) states that under RMS traffic generating guidelines, the peak hour trip generation for an accommodation facility with up to 62 rooms/suites could result in a maximum of approximately 25 additional vehicle trips per hour. The TIA further states that based on the operation of *Roar and Snore* (which starts after 6 pm and finishes at 9.30 am), guest arrivals and departures would likely fall outside of the peak traffic periods, and as such, the proposal would not result in any unacceptable traffic impacts. Accordingly, the TIA states the surrounding local road network has sufficient capacity to accommodate the relatively minor increase in traffic movements.

Nevertheless, public submissions and Council have raised concerns in relation to traffic generation arising from the proposed development.

The restaurant and bar facilities are proposed to be for the exclusive use of guests and will be ancillary to the proposed accommodation with the exception of use for separate functions such as weddings and business events. The EIS and additional information provided by the Applicant confirm the proposal does not seek to increase the intensity of use as the number of weddings held at the zoo (currently approximately 60 per year) and the maximum function capacity of the Taronga Centre (approximately 150 patrons) will not change. As such, there is unlikely to be any perceptible increase in traffic generation associated with events at the proposed development.

The Department considers the public submissions raising traffic concerns are based largely on the perception of increased traffic generation occurring at the same time as existing peak traffic periods hence exacerbating any existing traffic delays. However, the Department considers it pertinent that customers checking-in to the facility would normally arrive in the afternoon (the TIA states an anticipated check-in time from 3 pm) when general day visitors to the zoo would normally be leaving. Departure times for the wildlife retreat is in the morning when day visitors would normally be arriving. The Department further notes that RMS have not raised concerns in relation to traffic generation. Although the proposal does not preclude some retreat guests arriving or leaving during peak traffic times, the number of traffic movements involved would be minor and as such, traffic associated with the proposed retreat would unlikely contribute to existing peak traffic movements to or from the zoo.

The Department concludes the existing road network will have sufficient capacity to accommodate the additional traffic movements and traffic generation impacts arising from the proposal would be minor and acceptable.

5.8.2 Car parking

The zoo currently provides 834 visitor car parking spaces within a multi-storey car park (653 spaces) and an adjacent at-grade overflow parking area (181 spaces) located at the northern end of the site. A further 12 motorcycle spaces are provided within the multi-storey car park. The day rate for car parking is currently \$18. A staff car park is also located at the northern end of the site, to the north of the visitor multi-storey car park. There is no charge for staff parking.

Public submissions raised concerns in relation to parking, the predominant concern being the development will increase demand for parking in local residential streets. Council also raised concern that the TIA does not provide analysis of how the proposed development will impact on parking demand in the streets in close proximity to the zoo and requested dedicated parking (69 spaces) to service the proposed wildlife retreat.

The TIA notes under the provisions of Council's Transport DCP 2005, a hotel containing 62 rooms requires 71 parking spaces including nine spaces for staff (see **Table 10**). The Applicant advises this will be catered for by existing parking within the zoo. The proposed development includes the provision of five additional parking spaces (including one accessible space) located adjacent to the Taronga Centre turning bay as short-term drop-off spaces serving the retreat.

Table 10: Car parking requirements (Council Transport DCP 2005)

Use	Size	Parking Rates	Parking Spaces Required	Additional Parking Spaces Proposed
Hotel	62 rooms	1 space/room plus 1 space per 4 employees	62 guest +9 staff	5 (short term)
Total			71 spaces	5 (short term)

The TIA includes a review of peak daily and evening car park occupancy data between 1 January 2013 and 27 November 2014. The parking data indicated the following:

- over the duration of 653 days, parking occupancy exceeded capacity on only ten days (an average of 5 to 6 days per year). These occurred during the late December/early January school holiday period, Easter weekend and the October Labour Day Public Holiday;
- peak daily occupancy (85% of the time) is 618 spaces with a minimum of 216 car parking spaces vacant within the car park; and
- car park occupancy is greatest (i.e. between approximately 450 vehicles and capacity on peak days) between 12 pm and 1 pm and decreases significantly after 2 pm (minimum of 100 spaces available with over 400 spaces available by 5 pm).

As noted in **Section 5.8.1**, the number of weddings held at the zoo and the maximum function capacity of the Taronga Centre will not change. Condition A11 is also recommended to ensure there is no increase in the existing function centre capacity. As such, parking demands (as outlined in the above data) associated with these existing uses will remain unchanged.

The TIA identifies guest arrivals for the wildlife retreat will typically occur between 3.30 pm and 5.30 pm and departure times will typically occur between 10 am and 11 am, which is outside of the peak parking period for the zoo and at times when significant parking capacity exists. Therefore the proposed use will unlikely generate additional parking demand at times when demand for parking by zoo patrons is greatest.

The Department notes retreat guests may potentially arrive early to visit the zoo prior to checking-in or may visit the zoo after checking-out. Guests may also potentially stay for more than one night. As such, guests of the retreat may potentially occupy parking spaces at times of peak parking demand. The Department does not consider this to be a significant issue because:

- the TIA predicts a parking demand of 1 space per room consistent with Council's DCP parking standards. This represents 100% of guests arriving by private car and excludes the potential for any guests to arrive by private coach (i.e. as part of a tour group), taxi or public transport;
- although the Department accepts the majority of guests may arrive by private car, some guests would not. The TIA assessment is therefore based on an extremely conservative methodology and a highly unlikely scenario;

- in the 'worst-case' scenario of all guests arriving by private car and all guests either arriving early or leaving late (or staying multiple nights), this results in a potential daytime parking demand of 124 spaces. The TIA data indicates a minimum of 216 parking spaces are available within the zoo car park 85% of the time; and
- on the 5 to 6 days per year when there is peak car park use, the Department notes the peak usage remains confined to the middle of the day and the additional peak parking generated by the retreat would be outside these times. Therefore the impact in comparison to the existing situation is considered to be negligible and not sufficient to warrant the provision of additional on-site parking. However, to ensure any additional daytime parking demand generated by the wildlife retreat is appropriately managed, it is recommended that the Applicant prepare a Car Parking Management Plan (Condition E8). This will include mechanisms by which existing parking demand at peak times of the year can be suitably managed to ensure sufficient parking is available for any daytime demand generated by the wildlife retreat.

The TIA advises the additional required nine spaces for staff car parking can be accommodated within the existing staff car park. The Applicant has also advised that a large percentage of the proposed staff will be working at times that reflect peak operations of the proposed wildlife retreat (i.e. outside the peak parking demand within the site). Whilst the Department considers the site can reasonably accommodate the staff parking demands of the proposal, insufficient information has been provided to demonstrate how the existing and proposed staff parking demands, in conjunction with existing and proposed customer car parking demands, will be properly managed so as to avoid increased demand for parking on residential streets. Condition E8 therefore requires the Applicant to prepare a Car Parking Management Plan prior to the commencement of use.

The TIA also confirms facility guests will be provided with free onsite parking which further reduces the likelihood of guest choosing to park further away in residential streets.

Based on the findings, the Applicant notes there will be parking capacity available within the site at the time spaces are required by the proposed use and therefore the potential use of surrounding on-street parking would be the subject of choice rather than capacity. The RTS details the following initiatives to reduce any impact on surrounding on-street parking:

- internal communications issued to staff members to avoid using on-street parking;
- implementation of various strategies including discounted night time parking rates and 'staggered session' tickets for Vivid Sydney to avoid concurrent arrival and departures of large crowd numbers;
- promotion of public transport; and
- free parking for guests to encourage use of the onsite car park.

The Department has reviewed potential parking issues associated with the development and concludes the justification provided is well founded and demand for parking associated with the wildlife retreat will generally fall within the periods outside the peak parking demand generated by the zoo.

The Department concludes sufficient parking capacity currently exists within the zoo car park to cater for the proposed development. This is based on the fact that the vast majority of car parking demand created by the proposal will be outside the established peak zoo visitor use at times when there is significant surplus parking capacity. Therefore any impact on the parking capacity of neighbouring residential streets is unlikely. A Car Parking Management Plan is nevertheless required to be approved by the Secretary in order to manage any additional daytime parking demand particularly during peak parking periods.

The Department does not consider it reasonable or necessary to impose a condition requiring 69 of the existing customer parking spaces be reserved exclusively for guests of the retreat as requested by Council. To impose such a condition would not allow for the intended flexibility of use of the parking spaces and may increase on-street parking demand at peak times.

The Department further notes if there are existing issues associated with zoo customers parking in neighbouring residential streets at peak times despite the initiatives of the zoo detailed above, then Council has the ability to potentially adopt measures to prevent such impacts occurring i.e. metered parking or resident parking permits.

5.9 Heritage

Taronga Zoo and elements within the zoo are listed as heritage items in the MLEP 2012 (Item I34). The heritage map depicts the entire zoo as the item, but Schedule 5 qualifies the listing as relating to the Rainforest Aviary, Elephant House, bus shelter and office, floral clock and upper and lower entrance gates. These elements listed in MLEP 2012 are not located within or near the proposed development. The Department is satisfied the proposal will not create any direct or indirect impacts on these elements given their distance from the proposed works.

The Taronga Zoo Section 170 Register also lists over 250 individual built and landscape heritage items within the zoo. These items include natural elements, such as rock outcrops and trees, and built elements, such as enclosures, walls and pathways. There are 23 Section 170 items within the subject site comprising two built form items, eight landscape features, one moveable item (sculpture) and 12 trees. A further 16 items are within the vicinity of the site. A Heritage Impact Statement (HIS) has been included in the EIS which has assessed the potential impact to these items.

Table 11 details the potentially impacted heritage items and **Figure 22** identifies their location in relation to the proposed development.

Table 11: List of Section 170 Register items impacted by the proposal. Potential impact assessment as per HIS.

Item number	Item	Significance	Potential Impact
07L	Sandstone perimeter wall – east wall	Exceptional	No heritage impact.
31L	Sandstone wall and stairs	High	No heritage impact to stairs. Small negative heritage impact from burying the wall east of the stair. See Section 5.9.1 .
82A	Taronga Zoo – Greater	Not stated	Neutral heritage impact. Some negative impact from removal of some trees, garden beds and Australian section 2. Some positive impacts with conservation of other items, revealing of fountain base and restoration of shelter.
96B	Circular Kiosk (Fountain base 1917, kiosk 1930s)	High	Neutral heritage impact. See Section 5.9.1 .
99L	Original and early pathway layout	Exceptional	Neutral heritage impact.
123L	Australian Section 2 landscaping	High	Negative heritage impact. See Section 5.9.1 .
137L	Rustic stone seat adjacent to stair at SE corner of Taronga Centre	High	Positive heritage impact.
139L	Concrete stair with roughcast balustrade	Exceptional	Positive heritage impact.
149L	Rustic stone garden walling (below Taronga Centre)	High	Negative heritage impact from demolition of rustic stone garden walls west of stair. Positive heritage impact east of the stair where stone walls will be repaired. See Section 5.9.1 .

152L	Rustic stone garden walling near <i>gardenia thunbergia</i>	High	Neutral heritage impact.
165L	<i>gardenia thunbergia</i> (Tree Gardenia)	Exceptional	No direct heritage impact.
169L	<i>Podocarpus elatus</i> (Brown Pine)	Exceptional	No direct heritage impact.
197L	<i>Murraya paniculata</i> (Orange Jessamine)	High	Negative heritage impact from removal of the tree. See Section 5.9.2.
213L	<i>Magnolia Grandiflora</i> (Magnolia)	High	No direct heritage impact.
214L	<i>Alphitonia excelsa</i> (Red Ash)	High	No heritage impact.
215L	<i>Lophostemon confertus</i> (Brush Box)	High	No heritage impact.
216L	<i>Ficus macrocarpa</i> var. <i>Hillii</i> (Hill's Fig Tree)	High	No direct heritage impact.
217L	<i>Ficus rubiginosa</i> (Port Jackson Fig) (believed to have been wrongly identified)	High	No heritage impact.
218L	<i>Acemena smithii</i> (Lilly pilly)	High	No heritage impact.
219L	<i>Ficus rubiginosa</i> (Port Jackson Fig) (removed prior to project)	High	Neutral heritage impact as tree was removed prior to project due to health problems. It was not a cultural planning nor a remnant indigenous tree.
260L	<i>Lophostemon confertus</i> (Brush Box)	High	No heritage impact.
275L	<i>Lophostemon confertus</i> (Brush Box)	High	No heritage impact.
290L	Wisteria at Beastro	N/A	Neutral heritage impact from removal. See Section 5.9.2.
293M	Taronga Zoo sculpture	Level not listed	No heritage impact.

No heritage impact will occur to items surrounding the site.

In considering heritage impacts within the site, the Department has given consideration to the *Taronga Zoo Conservation Strategy 2002*. The strategy forms part of Zoo 2000 and categorises the significance for items on the zoo's Section 170 Register. The proposal's impacts on built heritage, landscape heritage and Aboriginal heritage are considered below.

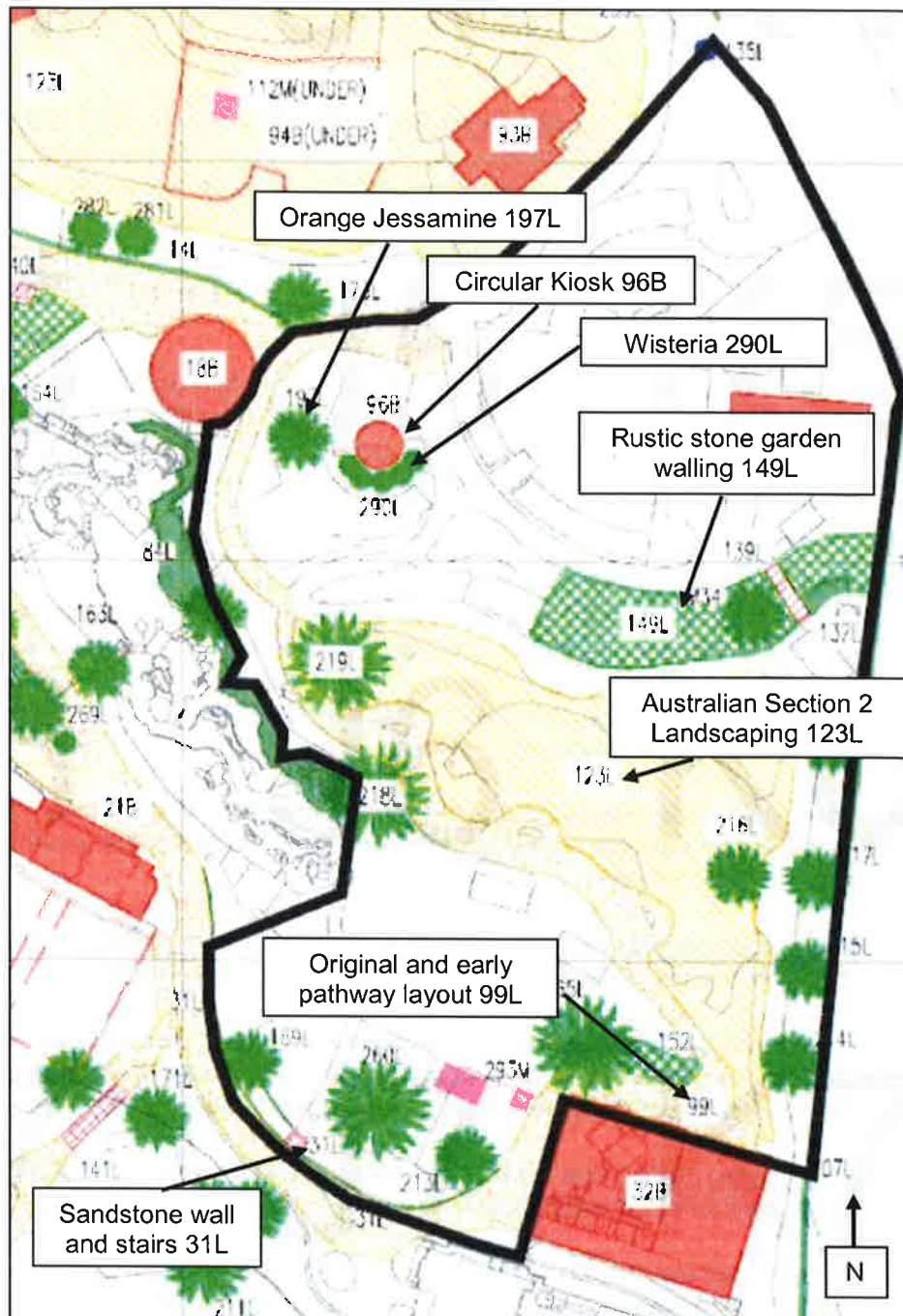


Figure 22: Location of heritage impacts potentially impacted (Source: Heritage Impact Statement)

5.9.1 Built heritage

There are five built form heritage items that will be negatively impacted by the proposed development (see **Table 11**). Details of the proposed works to these items and the heritage impact of the proposed works are as follows:

Sandstone wall and stairs (31L) It is proposed to retain the stairs as access to the proposed Red Kangaroo exhibit. A new ramp will require an opening in the wall west of the stairs. The east end of the wall will be buried with a new retaining wall across the line of the road.

The HIS states there will be impacts on the west end of the wall but this section of the wall is of more recent construction and there was previously a road in the vicinity. The stairs are to be retained intact and will provide access to the relocated shelter. Therefore there will be no heritage impact from these works. The HIS notes there will be a small heritage impact from burying the wall

east of the stair but states the wall should be left intact so it can be reinstated if desired in the future.

Circular kiosk (Fountain base 1917, kiosk 1930s) (96B) It is proposed the roof and columns of the 1930s kiosk are relocated on a new base as a picnic shelter in the Wollemi lawn. The proposed location is adjacent to the stone stair and retaining wall 31L. The proposal will also reveal part of the fountain base which will be exposed by removal of the kiosk. It will feature as a reception area in the proposed guest lodge foyer with a circular external wall built over it and interpretation of the former configuration provided. The ground levels are to be lowered around the former fountain to the original levels to expose the side of the fountain to view

The HIS notes removal of the kiosk will enable more of the fountain to be seen. Incorporation of the fountain in the foyer however means it cannot be returned to its original use as a fountain, the overall circular form cannot be seen and parts of the fountain are demolished. Revealing the form on the outside and the proposed interpretation with an historic photo will allow visitors to understand the history.

The kiosk is currently used as a food service area and is not open to the public. Relocating it will allow it to be used by the public which is a positive heritage impact. The associated loss of the masonry wall has minimal heritage impact as it is currently obscured and can be easily replicated.

Original and early pathway layout (99L) Most of the remaining sections of existing paths within the site will be removed as part of the proposal.

The HIS advises there will be an overall neutral heritage impact from these works as most sections of the remaining original and early paths are already altered and some paths shown as original are not (i.e. near the current toilet block).

Australian Section 2 landscaping (123L) Section 2 landscaping is proposed to be removed and replaced with the new Australian exhibit arranged around a new water feature.

The HIS states removal of the landscaping is a negative heritage impact but this will be balanced by the retention of the 'Australian' themed exhibit, the designed 'natural' setting. In addition, the new exhibit is more extensive with a larger range of fauna and locally indigenous flora.

Rustic stone garden walling (149L) The rustic stone retaining walls west of the stairs are proposed to be removed and the garden bed excavated for the extension of the Taronga Centre.

The HIS states demolition of the section of rustic stone garden will have a negative heritage impact. However, there will be a positive heritage impact to the east of the stairs where the stone walls will be repaired and appropriately planted with small scale shrubs. Mitigating measures involving adjusting the detailed design so the footings of the fence and the tree trunks do not damage the wall will also reduce the potential heritage impact.

The 2004 *Archaeological Management Plan* (AMP) addresses archaeological potential at the zoo. The HIS considers the proposal in relation to the AMP and notes the site is in an area zoned as having medium to low archaeological potential. The HIS however notes remains of the original toilet blocks may be impacted by works to construct Pods D & E and remains of the Athol Quarantine Station in the Wollemi Lawn may be also be impacted. Additional research and documentation is required to determine if there will be any impact. If this determines there will be an impact, further consultation will be required from the Heritage Council of NSW and a condition to this effect is recommended accordingly.

The Department notes the OEH (Heritage Division) does not object to the proposal and have commented that the proposal does not affect any places listed on the State Heritage Register.

The Department has considered the relative merits of the proposed works and associated built heritage impacts against the benefits of the proposal. Aside from the strategic benefits and project justification detailed in **Section 2.2**, these benefits also include the provision of a new DDA compliant equitable access route within the site.

The Department considers the impacts to individual items on the Section 170 Register will be suitably mitigated by relocation, conservation of remaining elements and interpretation of items removed or altered. As such, the proposed works will have a neutral heritage impact on the overall zoo and are considered acceptable.

The Department recommends conditions are imposed in relation to the mitigation measures contained in the HIS, including the addendum submitted as part of the RTS.

5.9.2 Landscape heritage

There are two landscape heritage items sought to be removed as part of the proposed development (see **Table 11**):

- Orange Jessamine (197L); and
- Wisteria at Beastro (item 290L).

The HIS notes further research and examination of 1960s images indicate the Orange Jessamine is not an Edwardian planting but likely planted in association with development in the 1980s. The HIS further notes similar species could be planted at a suitable location such as the site of the relocated shelter.

The HIS states the Wisteria at Beastro is believed to be a 1980s planting and similar species could be planted in a suitable location elsewhere such as the site of the relocated shelter or elsewhere in public spaces within the zoo. Other heritage trees will require protection during the proposed works and this is recommended as a condition of consent.

The OEH (Heritage Division) has raised no concerns in relation to the proposed tree removal and whilst Council has made comments, these do not relate to the above two trees. Non-heritage tree removal is discussed in further detail in **Section 5.7**.

The Department notes the location of the two trees precludes their retention as part of the proposed development and that an addendum to the HIS concludes that given their lack of heritage value, prevalence in other locations around the zoo and inappropriateness within an Australian themed exhibit, it is not considered necessary on heritage grounds to replant these species within the retreat site but they could be considered in future plantings within the zoo.

The Department concludes the heritage impact arising from the removal of items 197L and 290L listed on the Section 170 Register will be relatively minor given the trees are not early plantings and can be adequately replaced in suitable locations elsewhere on the site thus minimising any longer term adverse impact. A condition is recommended to ensure the protection of other heritage trees during the proposed works.

5.10 Animal Welfare

A number of public submissions raise concerns regarding the loss of capacity of land for animals, including back of house areas, and that the development will impact adversely on animals in relation to noise and overshadowing. The DPI has also raised some initial concerns regarding noise, respite for animals from human proximity and overshadowing.

The Department notes section 19 of the *Exhibited Animals Protection Act 1986* states a licensee cannot alter or extend a licensed animal display establishment unless approval from the Secretary of the DPI is first obtained.

Accordingly, the Applicant will need to apply for the necessary approvals from the DPI. The standards against which such an application will be assessed include animal welfare. The RTS confirms the Applicant is confident the separate approvals will be obtained including in relation to adequate solar access to the exhibits. In the event the DPI approval process requires changes to the approved form of development, this may require an application to the Department to modify the consent.

The Department concludes this issue will be separately addressed by the DPI and a condition will be imposed on the consent requiring the applicant to apply for the necessary permits and other approvals from the DPI required under the *Exhibited Animals Protection Act 1986*.

5.11 Other Issues

Other matters for consideration that have been raised and not addressed above are addressed in **Table 12**.

Table 12: Other matters for consideration

Issue	Consideration	Recommendation
Noise and Vibration	<p><u>Construction</u></p> <ul style="list-style-type: none"> The application included a Noise and Vibration Assessment (NVA) which was updated for the RTS at the request of the EPA. The NVA states construction noise levels would generally comply at surrounding residential receivers during the day for all activities but notes an exceedance of up to 2dB is predicted during the demolition stage during the day which is noted as minor. The NVA recommends noise mitigation, control measures and community consultation protocols. These include using lower noise types of plant, locating stationary plant such as generators away from sensitive receivers and shielding plant and/or installing hoardings. The NVA states that due to the large separation distances between construction works and residential receivers, all buffer distances will be complied with and therefore no vibration impacts are expected. In terms of potential impact on wildlife, if measures to equipment are limited and alternative processes not possible, animals in the vicinity which are observed to be sensitive to the works may be relocated for a period if practical. <p><u>Operation</u></p> <ul style="list-style-type: none"> The NVA finds the predicted noise levels as a result of use of the car park at evening and night times are compliant with the relevant standards for these time periods. The predicted noise levels are compliant with the relevant standards for the day, evening and shoulder time periods. With proposed opening hours of 6 am to 1 am, 7 days per week, exceedances of up to 13dB are predicted during the night time period in mid frequencies. This arises due to noise breakout from the internal function space, use of the 	<p><u>Construction</u></p> <ul style="list-style-type: none"> The Department is satisfied with the Applicant's construction noise management measures and recommends a condition of consent requiring a Construction Noise Management Plan that is consistent with these recommendations. A condition limiting construction hours to 7 am to 6 pm Monday to Friday and 8 am to 1 pm Saturdays (as requested by Council) is recommended. Recommended Condition B19 includes a requirement for an Animal Relocation Management Plan to be prepared in relation to the relocation of zoo animals observed to be sensitive during construction works. <p><u>Operation</u></p> <ul style="list-style-type: none"> The Department considers potential noise levels arising from intensification of use of the car park at night acceptable given the distances (over 300 m to nearest residential receiver) and noise levels involved. A restriction on the hours of use of the car park is therefore not required. The Department has included the EPA's recommended

Issue	Consideration	Recommendation
	<p>external terrace area and use of the external deck area of the guest lodge. The NVA recommends use of external areas including the terrace outdoor area, is limited to midnight and that the doors and windows of the function area, restaurant and guest lodge should be closed at midnight.</p> <ul style="list-style-type: none"> • The EPA state the sleep disturbance criterion is 49 dBA and that the predicted noise level of 52 dBA for night-time carpark activity exceeds the criterion by 3 dBA. Noise impacts would most likely arise from activity associated with vehicles leaving the car park. The Applicant has provided a revised NVA which notes a common and typical minimum noise reduction of 10 dBA from outside to inside and a consequent internal noise level of 42 dBA which is below the level that would cause sleep disturbance at the closest residence. • The EPA has recommended the following conditions: <ul style="list-style-type: none"> - maximum combined noise levels of plant and equipment; - external areas including the outdoor terrace area and guest lodge deck are not to be used after 12 midnight; - doors and windows of the terrace, restaurant and guest lodge are to be closed between 12 midnight and 7 am; and - loading dock use and waste collection activities are to only occur between 7 am and 6 pm Monday to Saturday and 8 am to 6 pm Sundays and Public Holidays. 	<p>conditions where relevant to ensure the operational aspects of the development do not result in adverse amenity impacts on the surrounding area. Other noise conditions are also recommended as per the recommendations contained in the NVA.</p>
Cumulative Traffic and Parking Impacts during Construction	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Given the likely overlapping construction periods of previously approved developments and the current proposal and concern raised by Council, a supplemental TIA assessment of the potential cumulative traffic and parking impacts was submitted with the RTS. • During the construction overlap periods, an additional 54 construction vehicles per hour (vph) at the peak operating time (11 am to 3 pm on weekends) is predicted by the TIA. • This results in an increase in overall traffic numbers at peak times from 310 vph to 364 vph and equates to approximately one additional vehicle movement per minute. This will only occur between 11 am and 1 pm on Saturdays as the permitted Saturday construction period concludes at 1 pm with no work on Sundays. • The majority of construction workers will not likely be driving in/out of the site during the peak periods and are likely to remain at the site to pack up before shutting down for the day. As a result, the TIA anticipates that during this period, the peak Saturday operation and construction will generate peak traffic flows of 340 vph (an increase of 30 vph). This equates 	<p><u>Construction</u></p> <ul style="list-style-type: none"> • The Department considers construction traffic is unlikely to have a significant impact on the operation of the surrounding road network, particularly given construction vehicles are unlikely to be present during the zoo's peak seasonal operating times, such as the Christmas and New Year period. A condition requiring a Construction Traffic Management Plan to avoid construction traffic impacts is recommended.

Issue	Consideration	Recommendation
	<p>to one extra vehicle movement every two minutes.</p> <p><u>Parking</u></p> <ul style="list-style-type: none"> The overlap between the Sumatran Tiger and TISL construction periods requires up to 37 parking spaces for construction workers. This increases to 50 spaces during the overlap period of the TISL and the proposed development. The TIA confirms the anticipated peak overlapping parking demand will be adequately accommodated within the existing spare capacity. The busiest overlap period will result in a maximum parking demand of 50 spaces for a period of less than 12 months. As noted in Section 5.8.2, the TIA states that parking demand exceeds total car park capacity 5 to 6 days per year. This occurs over the Christmas and New Year holiday period when construction work does not take place and parking is available outside of this period as demonstrated in the TIA. 	<p><u>Parking</u></p> <ul style="list-style-type: none"> The Department is satisfied there will be sufficient on-site parking capacity to cater for construction workers during the cumulative construction period.
Fire Safety/Bushfire	<ul style="list-style-type: none"> Taronga Zoo is classified as bushfire prone land. Accordingly, the EIS includes a Bushfire Assessment Report (BAR), Bushfire Safety Strategy (BSS) and Building Code of Australia Report (BCAR) which all consider fire safety. The BAR has been conducted in accordance with <i>Planning for Bush Fire Protection 2006</i> (PBP 2006) and has considered the relevant Australian Standard for construction of buildings in bushfire prone areas (AS 3959-2009). The location of the proposed development towards the eastern boundary of the site means that asset protection zones normally required under PBP 2006 cannot be provided within the eastern boundary of the zoo site. FRNSW reviewed the proposal (including the BCA report) as the relevant fire authority for Taronga Zoo. The matter was also referred to the RFS. Although neither FRNSW nor RFS objected to the proposal, a number of recommendations were made in relation to minimising the potential for loss of life and property. The RTS and further additional documentation included a revised BSS and a Fire Safety Response to comments and recommendations received from FRNSW and the RFS. The revised BSS recommends a number of alternative solutions to address the matters raised and the Fire Safety Strategy provides a specific response to recommendations made by FRNSW and the RFS. In addition, the revised BSS identifies the Centenary Theatre (currently under construction) as a suitable fire refuge building within the site and which will comply with the provisions of AS 3959-2009. 	<ul style="list-style-type: none"> The Department has considered the fire safety risk of the proposal and concludes it is acceptable, subject to conditions requiring compliance with the FRNSW, RFS and BCA report recommendations.

Issue	Consideration	Recommendation
	<ul style="list-style-type: none"> Additional reports submitted during the assessment were reviewed by FRNSW and the RFS who conclude that the matters raised have been appropriately addressed. 	
Stormwater	<ul style="list-style-type: none"> The stormwater report considers stormwater quality and quantity control measures. It advises stormwater will be captured with rainwater tanks and reused for both internal and external uses, the increase in impervious area is negligible, and the proposed development is not expected to have any impacts to the stormwater flow rate and downstream properties. Water quality treatment is to be provided. The stormwater report nominates various appropriate erosion and sediment controls during construction and includes a suitable soil and erosion control plan. 	<ul style="list-style-type: none"> The Department considers the proposal is appropriately designed to accommodate stormwater flows and recommends erosion and sediment control measures form part of the Construction Environmental Management Plan.
Threatened Species	<ul style="list-style-type: none"> One public submission questioned whether the proposal will impact on the Red-crowned Toadlet (<i>Pseudophryne australis</i>) within the development site given a population has been recorded previously in the adjacent National Park. The RTS includes a response from the Curator, Native Fauna of the Taronga Conservation Society Australia who is also a threatened species biologist who has undertaken survey and monitoring work on Red-Crowned Toadlets. The response states that there are no populations of this species on the Taronga Zoo property and, in the Curator's opinion, the property does not contain any habitat suitable to sustain a population of this species. 	<ul style="list-style-type: none"> No evidence has been received to support the submission that Red-crowned Toadlets are located within the site. The issue has not been raised for previous development proposals within the zoo. The Department is satisfied that the site does not contain a population of the Red-crowned Toadlet and there will be no direct or indirect impact on this threatened species from the proposed development.
Aboriginal Heritage	<ul style="list-style-type: none"> There is one registered Aboriginal heritage item within Taronga Zoo located in a shallow sandstone overhang on the northern side of Birdshow Road. 	<ul style="list-style-type: none"> The proposed works are located a significant distance from this item and will not result in any adverse impact.

5.12 Consideration of key issues raised in submissions from Council and the public

Table 13 presents the key issues raised in the public and Council submissions (as summarised in Section 4), and how the Department has considered each issue.

Table 13: Consideration of key issues raised in submissions from Council and the public

Concerns raised	Department's comments
<ul style="list-style-type: none"> Permissibility and appropriateness of use <p>(Council submission)</p>	<p>The Department concludes the proposal is ordinarily incidental to the existing use as a zoological garden and is not inconsistent with the Zoological Act because:</p> <ul style="list-style-type: none"> the proposal will provide an immersive accommodation wildlife experience; the Land and Environment Court has previously determined that for a use to be 'ordinarily incidental' to another use, it does not have to be ordinarily incidental to that particular development; eco-tourist/accommodation facilities are a common feature within a number of other zoos within Australia and around the world; the proposed restaurant, terrace and guest lodge will service only guests staying within the proposed retreat or those attending functions; and will provide for the display of animals and allow for increased awareness of species conservation and management.

Concerns raised	Department's comments
<ul style="list-style-type: none"> Public access to public land (Council and public submissions) 	<p>The Department concludes the development will not compromise equitable access to public land and will not restrict expansion of zoo exhibits because:</p> <ul style="list-style-type: none"> the proposed development is to be constructed in an area of the zoo which is not currently open to the visiting public and contains various back-of-house uses and storage facilities; the works will enable an additional 2,440 m² of exhibit space to be publically visible and will improve access to these areas for people with a disability; although physical access to the sanctuary exhibit will only be available to retreat guests, this is consistent with existing optional experiences currently offered at the zoo such as the 'Wild Ropes Challenge' and 'Zoo Adventure Holiday'; and zoo exhibits are predominantly viewed from a public viewing area and do not involve physical access within the exhibit.
<ul style="list-style-type: none"> Increased traffic (Council and public submissions) 	<p>The Department concludes the development will result in negligible traffic generation impacts because:</p> <ul style="list-style-type: none"> customers arriving and leaving the retreat would normally do so before or after day visitors to the zoo. Although the proposal does not preclude some retreat guests arriving or leaving during peak traffic times, the number of traffic movements involved would be minor and as such, traffic associated with the proposed retreat would unlikely contribute to existing zoo peak traffic movements; and the restaurant and bar facilities are proposed for the exclusive use of guests and will be ancillary to the proposed accommodation with the exception of use for separate functions such as weddings and business events. The proposal does not seek to increase the intensity of these existing uses.
<ul style="list-style-type: none"> Inadequate car parking (Council and public submissions) 	<p>The Department concludes that sufficient onsite car parking will be provided for the development for the following reasons:</p> <ul style="list-style-type: none"> the zoo currently provides 834 visitor car parking spaces. The proposal requires 71 parking spaces including nine spaces for staff and this requirement will be provided by existing parking capacity within the zoo; guest arrivals for the wildlife retreat will typically occur outside of the peak parking period at times when significant parking capacity exists; on the 5 to 6 days per year when car park is full at peak times, the potential impact of additional peak daytime parking generated by the retreat is negligible and not sufficient to warrant the provision of additional on-site parking; a condition requiring 69 of the existing customer parking spaces be reserved exclusively for guests of the retreat would not allow for the intended flexibility of the parking spaces and may increase on-street parking demand at peak times; and whilst the Department considers the site can reasonably accommodate the customer and staff parking demands, to ensure any additional daytime parking demands are properly managed, it is recommended that the Applicant prepare a Car Parking Management Plan (Condition E8).
<ul style="list-style-type: none"> Construction noise and traffic (Council and public submissions) 	<ul style="list-style-type: none"> The submitted noise assessment states construction noise levels would comply with NSW interim construction noise guidelines at surrounding residential receivers during the day for all activities but notes an exceedance of up to 2 dB is predicted during the demolition stage during the day which is noted as minor; the Department is satisfied with the Applicant's recommended construction noise management measures and recommends a condition of consent requiring a Construction Noise Management Plan consistent with these recommendations; and during the construction overlap periods, there will be approximately one additional vehicle movement per minute. The Department considers this increase is unlikely to have a significant impact on the operation of the surrounding road network. A condition requiring a Construction Traffic Management Plan to manage construction traffic impacts is recommended..

Concerns raised	Department's comments
<ul style="list-style-type: none"> Tree removal (Council submission) 	<p>The Department concludes the proposed tree removal and tree replacement scheme to be acceptable given:</p> <ul style="list-style-type: none"> the proposed building design comprises smaller, individual floor plates and elevated walkways which reduce the requirement for tree removal and minimises the impact to the root systems of trees retained; the proposed concept landscaping/planting scheme includes replacement planting of a minimum 80 new indigenous trees, 70 of which will have an initial planting height of 3 m and 10 of which will have a planting height of 4 m; the planting scheme will result in an increase in native Australian landscaping and species which includes substantial back of house and servicing areas; and the replacement trees will gradually replace the amenity of the 'high category' trees to be removed with a greater overall amenity outcome achieved over time.
<ul style="list-style-type: none"> Building height, character of the area and visual impacts (Council and public submissions) 	<p>The Department considers the height, character and visual impacts of the proposed buildings to be acceptable because:</p> <ul style="list-style-type: none"> the accommodation pods have been suitably designed to be subservient to the scale of the Taronga Centre, appropriately respond to the topography of the site and are sympathetic to the character of the zoo; the visual impact of the development from Athol Bay will be negligible with only upper floor elements visible above the tree line; the proposed extension to the Taronga Centre will be of a compatible scale to the existing Centre, steps down in height from north to south and will not appear visually intrusive when viewed from more distant locations around the Harbour and Cremorne Point; the two storey guest lodge will be compatible with the scale of surrounding buildings; and new tree planting will assist in shielding and breaking up the visible built form the effect of which will enhance over time

5.13 Public Interest

The application is considered to be in the public interest as it will provide the following:

- a new Australian wildlife exhibit at Taronga Zoo;
- a new wildlife retreat that will expand upon the existing immersive accommodation wildlife experience, specifically with Australian wildlife exhibits;
- reinforce Taronga Zoo's position as a major tourist attraction and therefore improve NSW's tourism sector, in accordance with *NSW 2012, A Plan for Growing Sydney*, the *Draft Towards our Greater Sydney 2056* and the *Draft North District Plan*; and
- the creation of approximately 250 full time equivalent jobs during construction and 38 full time jobs during operation, which is consistent with the objectives of the State Plan.

6. CONCLUSION

The proposal seeks approval for demolition works and construction of a new Australian habitat exhibit and wildlife retreat at Taronga Zoo.

The Department has fully considered all relevant matters under section 79C of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. The Department has reviewed the EIS, RTS and subsequent information provided by the Applicant and duly considered advice from public authorities. Issues raised in submissions have been considered and all relevant environmental issues associated with the proposal have been thoroughly assessed.

The Department accepts the proposed Australia habitat and wildlife retreat will allow Taronga Zoo to continue its key educational role both directly with visitors and indirectly through increased visitor numbers which can be utilised for further expanding educational facilities and immersive experiences across the zoo.

The Department also considers the proposed use is permissible under MLEP 2012 as the proposal will be ordinarily incidental and ancillary to the existing use of the site as a zoo.

The proposed works will enable additional land to be utilised as exhibition space, increasing public access within the zoo. The proposed built form has been suitably designed to relate to the sloping topography of the site and the design concept of fragmented accommodation 'pods' allows for smaller scale buildings to be located within the site. The proposed buildings are considered to be designed to a high quality with a scale and choice of materials that allow the buildings to relate to their built and natural context.

Although the development will involve the loss of trees, suitable advanced compensatory planting is proposed. Although the extension to the Taronga Centre and elements of the proposed accommodation pods will be visible to some degree from vantage points around the harbour, no adverse impacts will result to the overall visual character of the zoo and the predominant landscaped character of the zoo will be retained.

The application demonstrates that sufficient parking is currently provided onsite to cater for the proposed development given demand for parking occurs outside of the peak demand generated by general day visitors to the zoo. The surrounding local road network has sufficient capacity to accommodate the relatively minor increase in traffic movements resulting from the proposed development.

There will be minimal heritage impact from the proposed works and no impacts will occur from the proposed development to residential properties in the locality subject to conditions.

The Department is satisfied the recommended conditions and implementation of measures detailed in the Applicant's EIS and RTS and as recommended by agencies will adequately mitigate the residual environmental impacts of the proposal. Key conditions of consent would require the applicant to:

- prepare a detailed Landscape Plan and undertake tree planting and landscape works with all new tree planting to be maintained for a minimum of two years;
- prepare a Construction Environmental Management Plan and Construction Traffic and Pedestrian Management Plan;
- prepare a Heritage Management Plan;
- prepare an updated Emergency Management Plan;
- prepare a Car Parking Management Plan;
- provide a compliant fire refuge building; and
- restrict use of the approved bar, restaurant and function/terrace area to wildlife retreat patrons, wedding guests and function guests only.

The Department is satisfied the proposal is also consistent with the strategic objectives for the area, as outlined in *NSW 2012, A Plan for Growing Sydney*, the *Draft Towards our Greater Sydney 2056* and the *Draft North District Plan*, and is consistent with the requirements of relevant environmental planning instruments and policies. The project represents a significant opportunity to promote and enhance Taronga Zoo as a place of conservation and as an important tourist attraction for Sydney and NSW. The proposal accords with the State, regional and local strategic initiatives to contribute to the growth of the NSW economy by increased tourism in the State.

The Department concludes the development is in the public interest and can be supported, subject to conditions.

7. RECOMMENDATION

It is recommended that the Executive Director, Key Sites and Industry Assessments:

- (a) **consider** all relevant matters prescribed under section 79C of the EP&A Act, as contained in the findings and recommendations of the assessment report and appended documentation;
- (b) **grant consent** to the development application, subject to conditions, under section 89E of the EP&A Act, having considered all relevant matters in accordance with the above; and
- (c) **sign** the attached instrument of consent at **Appendix A**.

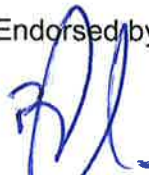
Prepared by: Andy Nixey
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Endorsed by:



Ben Lusher
Director
Key Sites Assessments

Approved by:



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

21/4/17

APPENDIX A INSTRUMENT OF CONSENT

APPENDIX B RELEVANT SUPPORTING INFORMATION

The following supporting documents and information to this assessment report can be found on the Department of Planning and Environment's website as follows:

- 1 Environmental Impact Statement
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7419
- 2 Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7419
- 3 Applicant's Response to Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7419

APPENDIX C CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)

Relevant EPIs and DCPs:

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

Note: Clauses within the above EPIs and DCPs that are not relevant to the application or have been considered in Section 5 of this report have been omitted from the below assessment.

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

The development is SSD under clause 2(h) of Schedule 2 of the SRD SEPP, as it is a development at Taronga Zoo that has a CIV of more than \$10 million.

State Environmental Planning Policy No.55 – Remediation of Land (SEPP 55)

Clause 7 of SEPP 55 prevents a consent authority from issuing development consent unless it has considered:

- whether the subject site is contaminated;
- whether a contaminated site is suitable for its proposed use in its current state, or will be suitable following remediation; and
- whether it is satisfied that the site will be remediated before the land is used for the purpose proposed under the application.

The EIS was accompanied by a Preliminary Site Investigation which concluded that there is no obvious indicators of contaminating activities on the site other than imported fill and demolition of buildings that are likely to have contained asbestos containing material. Existing fill will need to be assessed for the presence of asbestos material during construction and an Unexpected Finds Protocol must be prepared and implemented for the project. Any asbestos encountered will need to be removed by a suitably licensed contractor and a clearance certificate provided.

The preliminary investigation concludes that the site could be made suitable for the proposed development.

The Department is satisfied with the findings and conclusions of the preliminary investigation and is satisfied that the site is either suitable or could be made suitable for the proposed development. The Department is also satisfied that, subject to the recommendations in the preliminary investigation, appropriate measures would be in place to handle the discovery of any asbestos material during construction. Condition B7 is recommended in relation to the requirement for a **Construction Environmental Management Plan** whilst condition B8 is recommended in relation to the requirement for an **Asbestos Management Plan**.

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (SREP 2005)

SREP 2005 applies to all land within the Sydney Harbour Catchment, as shown on the Sydney Harbour Catchment Map. Taronga Zoo is within the defined Foreshores and Waterways Area and is also identified as a Strategic Foreshore Site (Sheet 7 – Taronga Zoological Gardens).

Matters for Consideration

Clause 20 of SREP 2005 identifies that the following matters are required to be considered by consent authorities before granting consent to development under Part 4 of the Act:

- clause 21 - Biodiversity, ecology and environmental protection;
- clause 22 - Public access to, and use of, foreshores and waterways (not applicable to proposal);
- clause 23 - Maintenance of a working harbour (not applicable to proposal);

- clause 24 - Interrelationship of waterway and foreshore uses (not applicable to proposal);
- clause 25 - Foreshore and waterways scenic quality;
- clause 26 - Maintenance, protection and enhancement of views; and
- clause 27 - Boat storage facilities (not applicable to proposal).

The development is consistent with the relevant matters for considerations as stormwater quality and quantity control measures have been incorporated into the design to ensure there are no adverse environmental impacts. The proposal has been designed to integrate with the surrounding architectural forms and landscape and to minimise filling and excavation to natural ground levels. Existing view corridors to other key features of Sydney Harbour would not be impacted by the proposal.

Foreshores and Waterways Planning and Development Advisory Committee (FWPDAC)

The proposal is of a type referred to in Schedule 2 of SREP 2005 and was referred to the FWPDAC. No comments on the proposal were received.

Strategic Foreshore Sites

The site is identified as a 'Strategic Foreshore Site' on 'Sheet 7 - Taronga Zoological Gardens' of the Strategic Foreshore Sites Map. SREP 2005 states that development consent must not be granted for the carrying out of development on a strategic foreshore site unless there is a master plan for the site, and the consent authority has taken the master plan into consideration. Taronga Zoo has an approved master plan (prepared and adopted in 2002 by the then Minister for Planning) which provides a basis for the continuing process of renovation, refurbishment and redevelopment of the site. The Masterplan comprises the following suite of documents:

- Zoo 2000 'The View to the Future' – December 1999;
- Taronga Zoo Master Plan Urban Design Principles and Visual Analysis – May 2001; and
- Taronga Zoo Conservation Strategy – July 2002.

Each of the above documents are considered in the table below:

Masterplan Document	Comment
Zoo 2000 'The View to the Future' – December 1999	<p>The project is consistent with Zoo 2000 as it:</p> <ul style="list-style-type: none"> • satisfies the primary public function of the zoo to provide an inspirational, relaxing educational experience where visitors can come face to face with exhibits of wildlife; • retains all 'Public Precincts' identified in the Master Plan and does not significantly alter 'Primary Visitor Circulation' spaces; • develops the Australia Habitat exhibit with the area of the Zoo identified in the masterplan as the 'Australia Precinct'. The development will increase the extent of animal displays, number of species exhibited and quality of facilities for animals thereby enhancing the primary purpose of the exhibit; • redevelops the smaller Australian exhibit and back of house areas close to major exhibits (Wollemi and Tasmanian Devil) and thus reinforces the overall thematic precinct of the zoo; • will provide enhanced educational and immersive experiences for guests in relation to Australian animals; • the project will achieve design excellence in presentation, functionality, visitor experience and safety; and

	<ul style="list-style-type: none"> the project will improve the existing 'back of house' character of the precinct and improve the overall visual appearance of the Australian Precinct.
Taronga Zoo Master Plan Urban Design Principles and Visual Analysis (UDAS Guidelines) – May 2001	<p>The UDAS guidelines identify seven urban design principles to guide development at the zoo. The proposal is considered consistent with these principles as follows:</p> <ul style="list-style-type: none"> it preserves a balance between preserving the natural bushland setting, contemporary zoo design and that of visitor focused services and activities of the zoo; it does not restrict or adversely impact any of the objectives relates to 'Public access and linkages'; it preserves significant vegetation where possible and where tree removal is required, significant native replanting is proposed. The proposal also retains the natural landform of the zoo, will preserve the overall natural visual character of the zoo and does not impact any major ridge lines or gullies; the design protects the unique visual qualities of the harbour, minimises built form protrusions through the tree canopy and does not impact identified view corridors within the zoo to the harbour; it largely complies with the built form principles for the 'Upper East' landscape precinct in that it minimises visual intrusion visible from the water and avoids development close to the gully and ridgeline of the precinct to the west. Although the development does include buildings on sloping land rather than entirely flat areas and involves some development closer to Bradleys Head Road than identified in the guidelines for the precinct, the development has been designed to terrace down the slope and respect the existing topography as much as possible; it will comply with Environmentally Sensitive Design principles through use of low-energy and sustainable building products; and it will not restrict or adversely impact maritime activities on the site.
Taronga Zoo Conservation Strategy – July 2002	<p>The Taronga Zoo Conservation Strategy 2002 is considered as part of the heritage discussion at Section 5.9 of this report. The Department concludes that the proposal is consistent with the broad intent of the Conservation Strategy.</p>

Mosman Local Environmental Plan 2012 (MLEP 2012)

The site of the proposed development is zoned SP1 Special Activities ('*Zoological Gardens*') under MLEP 2012. Development for the purpose of '*Zoological Gardens*', including any development that is ordinarily incidental or ancillary to development for that purpose, is permitted with consent in the zone. As detailed in **Section 3.2** of this report, the proposed development is considered permissible with consent in the zone.

The MLEP 2012 does not provide any maximum building height or floor space ratio controls to the site.

Clause 5.10 'Heritage Conservation' is to conserve the environmental heritage of Mosman, conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views, conserve archaeological sites, and conserve Aboriginal objects and Aboriginal places of heritage significance. The proposed development will have no adverse impact on any heritage items listed in MLEP 2012. Consideration of the heritage impacts of the proposal is provided in **Section 5.9** of this report.

Clause 6.4 'Scenic Protection' is to recognise and protect the natural and visual environment of Mosman and Sydney Harbour, to reinforce the dominance of landscape over built form and to ensure development on land to which this clause applies is located and designed to minimise its visual impact on those environments. Consideration of visual impacts of the proposal is provided in **Section 5.6** of this report.

Clause 6.9 'Preservation of Trees or Vegetation' is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation. The proposal seeks approval for the removal of 77 trees including two trees listed on the Section 170 Register. A minimum of 80 high category replacement trees are proposed. Consideration of tree removal and replacement is provided in **Sections 5.7** and **5.9** of this report.

Sydney Harbour Foreshores and Waterway Area DCP 2005 (DCP)

The site of the building is within the defined Foreshores and Waterways Area and is therefore subject to the controls in the DCP. The DCP includes aims and performance criteria in relation to ecological assessment, landscape assessment and design guidelines for development within the area.

The proposal is consistent with landscape aims and performance criteria as it maintains the vegetated nature of the site and is integrated with the sloping topography of the site. Although the proposal does involve the removal of 77 trees, mature and native trees have been retained where possible. A minimum 80 high category replacement trees are proposed which will be indigenous species and have a minimum planting size of 3 m (70 trees) and 4 m (10 trees). As such, there will be no cumulative loss of vegetation across the site and the proposal will contribute to the native bushland character of the site. No removal of vegetation is proposed close to the shoreline or significant ridgelines or cliff lines. Overall the proposed built form is considered to be suitably designed around, and subservient to, the natural vegetation and landform of the site.

It is consistent with built form guidelines as it maintains existing foreshore access and is within foreshore building lines, is not visually dominant when viewed from the water and proposes small scale buildings together with a commensurately scaled extension to the Taronga Centre with colours and materials that are sympathetic to its natural environment.

