



Taronga Zoo – Reptile and Amphibian Conservation Centre

State Significant Development SSD 17483577

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Glossary

Abbreviation	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
Applicant	Taronga Conservation Society Australia
BC Act	Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CIV	Capital Investment Value
Council	Mosman Council
CTMP	Construction and Traffic Management Plan
Department	Department of Planning and Environment
DPI	Department of Primary Industries, DPIE
EESG	Environment, Energy and Science Group
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
GSC	Greater Sydney Commission
HAA	Historical Archaeological Assessment
HIS	Heritage Impact Statement
ICNG	Interim Construction Noise Guidelines
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service

LSPS	Local Strategic Planning Statement
Minister	Minister for Planning
PCT	Plant Community Type
Planning Secretary	Secretary of the Department of Planning and Environment
RtS	Response to Submissions
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TCSA	Taronga Conservation Society Australia
TfNSW	Transport for NSW
TIA	Traffic Impact Assessment

Executive Summary

Introduction

This report provides an assessment of an application seeking approval for the development of the Reptile and Amphibian Conservation Centre (RACC) located in Taronga Zoo in Mosman, NSW (SSD 10456). The Applicant is the Taronga Conservation Society Australia (TCSA) and the site is located within the Mosman local government area (LGA). The Minister for Planning is the consent authority for the application.

The development would replace the current reptile world, referred to as the Serpentaria, which is proposed to be demolished to facilitate a new Wildlife Hospital to be lodged as part of a separate SSDA. The existing reptile and amphibian exhibits within the Serpentaria would be relocated to the proposed purpose-built facility.

The development includes the construction of a new part two/part three-storey building, walkways and amenities, back-of-house facilities, landscaping and demolition of gabion rock walls and concrete hardstand on site. The proposal seeks to improve the exhibit enclosures for the welfare of the Taronga Zoo's reptile and amphibian collection and provide improved opportunities for visitor interactions.

Engagement

The Department publicly exhibited the application for 28 days from Friday 30 July 2021 to Thursday 26 August 2021. The Department received a total of 8 submissions from public authorities, comprising 7 submissions from government agencies and 1 submission from Mosman Council all making comments.

Government agency submissions provided comments on the proposal and recommended conditions to mitigate potential impacts relating to construction management, heritage and Aboriginal heritage. Key issues raised in Council's submission include landscaping, tree replacement and recommended construction management conditions

14 public submissions (including 10 objections) were also received during the exhibition period. Key issues raised include a lack of engagement and consultation, visual impacts to Sydney Harbour, overdevelopment and tree removal.

In response to issues raised in submissions, the Applicant submitted a Response to Submissions report which provided additional information and justification for the proposal. The RtS also included an updated BDAR and amended plans including a reduction to the extent of third storey component of the proposed building.

Assessment

The Department has undertaken a detailed assessment of the proposal and has carefully considered the issues raised in submissions. The Department considers the development is acceptable for the following reasons:

- it would help reinforce Taronga Zoo as one of Sydney's premier tourist attractions, create an improved experience for visitors and provide upgraded animal facilities to meet current standards
- the scale and design of the RACC building is modest and sympathetic with the scale of the surrounding zoo facilities and it has been effectively integrated into the site's topography

- the proposed materials and landscaping would minimise the visual impacts of the proposal
- it would not result in any significant visual impacts to Sydney Harbour or the surrounding area as the proposed building would sit below the tree canopy and be largely shielded by existing mature vegetation
- it would not result in any amenity impacts on neighbouring properties given the site's context within Taronga Zoo and distance from the nearest residential property
- it would not result in any significant traffic or car parking impacts as any increase in traffic would be minor and limited to the initial opening weeks, and any temporary increase in parking demand can be accommodated within the existing car park
- it would not result in any significant built or Aboriginal heritage impacts and would substantially retain significant heritage views, and built and landscape elements listed on the S170 Register
- while the proposal would result in some removal of native vegetation and potential foraging habitat for the Southern Myotis Bat, the Department is satisfied the impact has been minimised and avoided where possible, and any residual impacts would be offset by planting 63 replacement trees in accordance with the tree replacement strategy and the purchase and retirement of biodiversity offset credits.

Conclusion

The Department considers the proposed development is acceptable as it would create an improved experience for visitors and upgrade reptile and amphibian exhibits to meet current standards.

The proposed development would also support the growth of an internationally recognised tourism destination and would create 800 design, project management and construction jobs and is unlikely to result in any adverse impacts on the environment or amenity of surrounding receivers.

The Department's assessment therefore concludes the proposal is acceptable and recommends the application be approved, subject to conditions.

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1 Introduction

Taronga Conservation Society Australia (TCSA) (the Applicant) seeks approval for the construction and operation of a new exhibit referred to as the Reptile and Amphibian Conservation Centre (RACC) in Taronga Zoo in Mosman, NSW.

The development includes the construction of a part two/part three-storey building, walkways and amenities, back-of-house facilities, landscaping and demolition of gabion rock walls and concrete hardstand on site.

1.1 Site Context

Taronga Zoo is located approximately 2.5 km north-east of the Sydney Central Business District (CBD) and is situated in the Mosman local government area (LGA) (**Figure 1**).

Taronga Zoo is located on Bradleys Head Road at the southern end of Mosman on the Bradleys Head Peninsula. Taronga Zoo is approximately 28 hectares and is surrounded by Bradleys Head Road to the east, Athol Wharf Road to the south, Little Sirius Cove to the west and Whiting Beach Road to the north. Taronga Zoo comprises a variety of animal exhibits, associated pathways, buildings and structures and the Australia Habitat and Wildlife Retreat within a landscaped setting.



Figure 1 | Regional Context Map (source: Applicant)

1.2 The Site

The RACC site is approximately 2,390 m² in area and is located within the eastern portion of Taronga Zoo, bound by the northern and southern pathways (**Figure 2**). The site exhibits a steep topography with a 7.1 m height difference between the northern and southern pathways.

Previously, the site was occupied by the seal amphitheatre and penguin pond. The north-western portion of the site contains terraced gardens contained behind gabion walls with a grassed area immediately to the south. More recently, the eastern portion of the site was occupied by a temporary Meerkat exhibit that has since been demolished to facilitate the proposed development. Two structures historically used as aviaries are located along the eastern site boundary of the site. A picnic/shelter has been constructed within the smaller aviary space, as shown in **Figure 6**.

The site contains a moderate amount of tree cover with approximately 78 trees within the site. Many of the trees on site have been planted over the past 10 years following the demolition of the seal pools.

Taronga Zoo is heritage listed in the Mosman Local Environmental Plan 2012 (MLEP). The item is identified as “Rainforest Aviary”, “Elephant House”, “bus shelter and office, floral clock and upper and lower entrance gates”. None of the items individually noted in the MLEP listing are located within the RACC site area; however, the floral clock and Elephant House are within close proximity. In addition to this, the site contains 12 items listed on the Section 170 Heritage and Conservation Register.

While the site is considered managed land, the site and surrounding land are mapped as bushfire prone land for the purposes of EP&A Act.

Views of the site are shown in **Figure 3** to **Figure 6**.



Figure 2 | The site shown in red outline and Taronga Zoo shown in blue outline (source: NearMap 2021)



Figure 3 | View of site from southern pathway facing east (source: Applicant)



Figure 4 | View of site from southern pathway facing west (source: Applicant)



Figure 5 | Subject site's northern boundary from northern pathway facing west (source: the Department)



Figure 6 | Subject site's northern boundary from northern pathway facing west (source: the Department)

1.3 Surrounding Site Context

The subject site is surrounded by existing zoo facilities and animal exhibits housing camels, capybaras and gorillas and the forest adventure playground, as shown in **Figure 7**.

To the north of Taronga Zoo is the residential area of Mosman which comprises one and two-storey dwelling houses. To the east of Taronga Zoo is Sydney Harbour National Park. To the south of Taronga Zoo is Sydney Harbour and Taronga Zoo Ferry Wharf. To the west of Taronga Zoo is Little Sirius Cove. The surrounding Zoo context is shown in **Figure 1**.

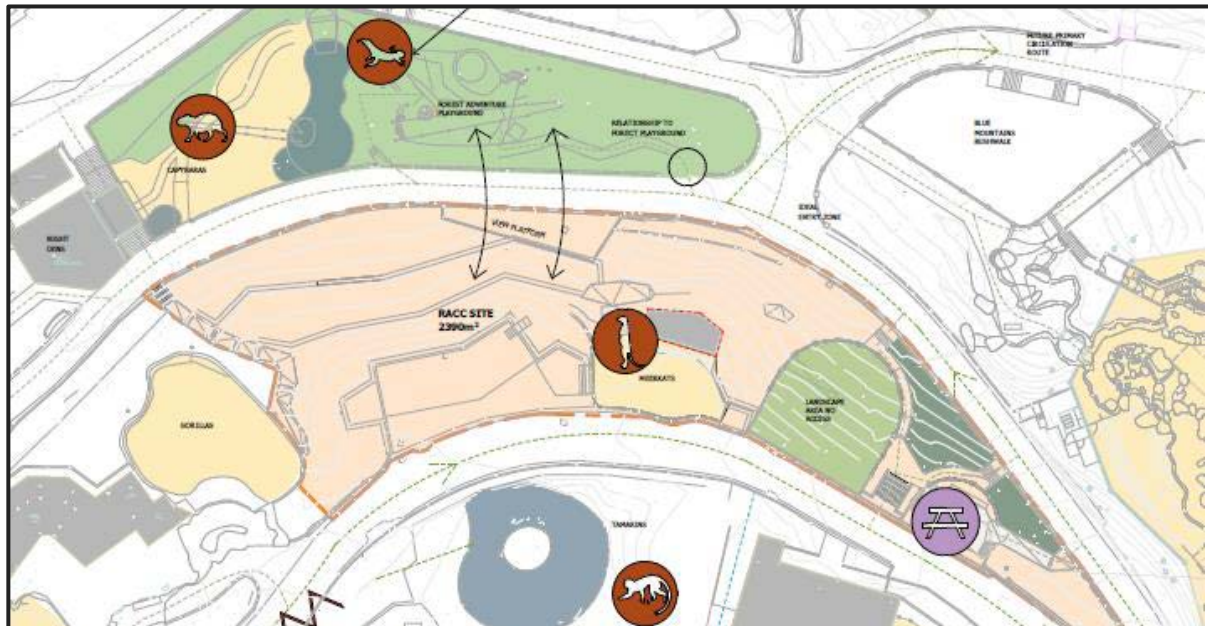


Figure 7 | Site location map (Source: Applicant)

2 Project

The development seeks approval for the construction and operation of the Reptile and Amphibian Conservation Centre (RACC).

The purpose of the development is to replace and relocate the existing reptile and amphibian exhibits within the 'Serpentaria' to provide an updated exhibit which is purpose built for reptiles and amphibians.

The main components of the development are outlined in **Table 1** and shown in **Figure 8** to **Figure 10**.

Table 1 | Main Components of the Project

Aspect	Description
Demolition	Demolition of the gabion rock walls and the concrete platform to the rear of site.
Built Form	- Construction of a part two, part three storey building with a maximum height of 12.65 m and GFA 1,210 m². - The building would provide a range of animal exhibits and back-of-house (BOH) facilities, comprising: - ground floor - staff and BOH facilities including holding rooms and storage areas. - level 1 - majority of exhibits with visitor access via a pedestrian pathway - level two - four exhibits surrounded by an open trafficable area for group gatherings and keeper talks.
Landscaping and access	- Removal of 50 trees, comprising of: 30 x Low Significance 4 x Medium Significance 9 x High Significance - Relocation of 6 trees determined to be of cultural significance - Construction of the Forest Walk to form the main visitor entrance from the east of the site to the RACC - Additional landscaping to create three landscape precincts (the Forest Walk, the Gully and the Green Façade).
Site area	2,390 m²
Capital Investment Value (CIV)	\$14,401,278
Jobs	800 jobs including design, project management and construction - Continuation of 12 operational jobs required for the Serpentaria



Figure 8 | Site plan (Source: Applicant's RtS)



Figure 9 | View of proposal from southern pathway facing east (Source: Applicant's RtS)



Figure 10 | View of proposal from southern pathway facing east (Source: Applicant's RtS)

2.1 Related development

Exempt development works

The Applicant proposes to undertake the following works within the site as exempt development in accordance with Schedule 2 of the Mosman LEP 2012 as the works have a CIV of less than \$1 million:

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

3 Strategic context

3.1 Greater Sydney Region Plan and North District Plan

The development is consistent with the Region Plan as it supports the economic growth of NSW by upgrading an important attraction within Taronga Zoo which will contribute to the tourism sector, creating jobs and protecting Sydney Harbour and its foreshore through sensitive design and landscaping.

The site is located within the North District area. The development is consistent with the objectives of the North District Plan, as it would:

- support the growth of an internationally recognised tourism destination
- provide upgraded facilities and contribute to the ongoing operation of a historically significant facility
- create and support jobs in the area.

3.2 Mosman Local Strategic Planning Statement 2020

The Mosman Local Strategic Planning Statement (LSPS) identifies Council's 20-year vision for land use planning in Mosman and contains 14 planning priorities. The development is consistent with the Mosman LSPS as it would:

- provide improved facilities to meet community needs, and foster a culturally rich, creative and socially connected Mosman community
- protect, conserve and enhance Mosman's urban tree canopy, landform, waterways and bushland setting
- protect, conserve and enhance the natural, visual, environmental and heritage qualities of Mosman's foreshore scenic area, and significant views to and from foreshore slopes
- upgrade zoo facilities, which provides a unique combination of recreational, cultural, tourism and amenity benefits to Mosman LGA
- provide opportunities for local employment during operation and construction.

3.3 Taronga Zoo Master Plan 2002 and Visitor Experience Program

The Taronga Zoo Master Plan was adopted in 2002 by the Minister for Planning and comprises a suite of documents including the Zoo 2000 'The View to the Future' (December 1999), Taronga Zoo Master Plan Urban Design Principles and Visual Analysis (May 2001) and the Taronga Zoo Conservation Strategy (July 2002).

The development is consistent with the Taronga Zoo Master Plan as it would improve the exhibit enclosures for the welfare of the Zoo's amphibian and reptile collection and provide guests with a more immersive wildlife experience. The development is also consistent with the Taronga Zoo Master Plan as it would not result in any adverse biodiversity, heritage or visual impacts.

The Visitor Experience Program was announced by the NSW Government in March 2015 and includes \$150 million of Taronga funded and government co-funded projects to transform visitor experiences and create vital animal habitats.

4 Statutory Context

4.1 State significance

The development is SSD under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it is development located in the Taronga Zoo Site and has 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 (SRD SEPP). Therefore, the Minister for Planning is the consent authority for the project.

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

- a political disclosure statement has not been made
- there are less than 15 public submissions (other than Council) in the nature of objections
- the Council of the area in which the development is to be carried out has not made an objection under the mandatory requirements for community participation in Schedule 1 of the Act.

4.2 Permissibility

The site is zoned 'SP1 Zoological Gardens' under the Mosman LEP 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.

The development involves the construction of new animal exhibits and facilities and therefore is permissible with consent.

4.3 Exhibited Animals Protection Act 1986

The *Exhibited Animals Protection Act 1986* identifies the need for approvals to be given for a zoo to exhibit animals, with certain animals requiring specific permits. The Applicant would be required to submit a separate application to the NSW Department of Primary Industries to obtain any permits or approvals required under the *Exhibited Animals Protection Act 1986*.

4.4 Mandatory Matters for Consideration

Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters are summarised as:

- provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements, and the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)
- the environmental, social and economic impacts of the development
- the suitability of the site
- any submissions
- the public interest, including the objects of the EP&A Act and the encouragement of ecologically sustainable development (ESD).

The Department has considered all these matters in its assessment of the project, as well as the Applicant's consideration of environmental planning instruments (EPIs) in its EIS as summarised in **Section 6** of this report. The Department has also given consideration to the relevant provisions of the EPIs in **Appendix C**.

4.5 Biodiversity Development Assessment Report

Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all applications for SSD to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

As part of its application, the Applicant prepared a BDAR, which was subsequently updated in the Response to Submissions, which concluded that the proposed development is not likely to have any significant impact on biodiversity values, subject to mitigation and management measures and the purchase of biodiversity credits.

The Department has assessed biodiversity impacts in **Section 6.2**.

5 Engagement

5.1 Department's engagement

In accordance with Schedule 1 of the EP&A Act, the Department publicly exhibited the application from Friday 30 July 2021 to Thursday 26 August 2021 (28 days). The application was made publicly available on the Department's website on Friday 30 July 2021. The Department notified adjoining landholders and relevant government agencies in writing.

The Department has considered the comments raised in submissions during the assessment of the application (**Section 6** and **Appendix B** of this report).

5.2 Summary of submissions

In response to the exhibition of the application, the Department received 22 submissions, comprising:

- 7 submissions from government agencies
- 1 submission from Council
- 14 submissions from the public, including 3 submissions from special interest groups

Out of the 22 submissions received, 11 submissions provided comments, one submission was in support and 10 submissions objected to the proposal.

Copies of the submissions may be viewed at **Appendix A**.

5.3 Key issues – Government agency

The key issues raised in government agency submissions are summarised in **Table 2**.

Table 2 | Summary of Government agency submissions

Heritage NSW	
EIS	Heritage NSW provided the following comments: • Heritage NSW concurs with the impact assessment provided by the Applicant. • an unexpected finds procedure should be implemented to manage historical archaeology at the site and should be included as a condition of consent. • definition of a relic provided in Section 2.2.1 (pages 15-16) has been superseded.
Heritage NSW – Aboriginal Cultural Heritage Division (ACH)	
EIS	The ACH provided the following comments: • while the proposed development appears to have low potential to impact on Aboriginal cultural heritage, there is potential for Aboriginal objects to be identified beneath the sandstone boulder in the study area. • ACH concurs with the recommendation in the ACHAR for test excavations if potential for intact soils are identified once the boulder is moved. • Any Aboriginal cultural heritage inductions would benefit from the involvement of Aboriginal community representatives.

	The Chance Finds protocol for Aboriginal objects needs to be included as part of any Construction Environmental Management Plan (CMP) prepared for the development.
Transport for NSW (TfNSW) and Roads and Maritime Services (RMS)	
EIS	TfNSW and RMS provided a combined response and made the following comments: - the existing Green Travel Plan should be updated in consultation with TfNSW prior to the commencement of use. - a detailed Construction and Traffic Management Plan (CTMP) should be prepared in consultation with TfNSW prior to the commencement of works.
Environment, Energy and Science Group (EESG)	
EIS	EESG provided the following comments: - the extent of the subject land in the BDAR should be reviewed as it differs to the EIS. If these areas do not contain native vegetation or provide habitat for threatened entities, then the BDAR should include a statement to justify why the subject land differs between the two report. - Table 12 of the BDAR should be amended to require that where capture and relocation of microbats is required, this should be carried out by the Project Ecologist. If the microbats are in torpor, this action should be delayed until a more suitable time.
RtS	EESG provided the following comments: - EES advised they are satisfied the description and extent of the 'subject land' identified in the revised BDAR is now generally consistent with the architectural plans. However, the native vegetation adjacent to the east of the building envelope has not been identified as being within the "subject land" and as such has not been subject to offsetting for any biodiversity impacts arising from the proposed development. - EES raises no concern with complimentary landscaping of this area as it is consistent with the existing use of the site, however recommended appropriate conditions of consent be applied noting that all areas of native vegetation identified in the BDAR for retention are to be retained and protected during all works. Landscaping activities must not result in disturbance to existing native vegetation identified for retention. - The Arboricultural statement has not considered the logistical feasibility associated with the transplanting of trees 9, 10, 16, 21, 23 and 24, or consideration into the proposed transplant locations, which are within proximity to vegetation identified for retention within the BDAR. EESG recommended the following conditions be applied to the consent: - appropriate bushland and tree protection fencing is to be installed by a project arborist in accordance with the relevant Australian Standard prior to any works commencing on site. - the Applicant must purchase and retire 3 PCT: 1778 Smooth-barked Apple - Coast Banksia / Cheese Tree open forest on sandstone slopes on the foreshores of the drowned river valleys of Sydney ecosystem credits and 2 species credits for Myotis Macropus (Southern Myotis) prior to any vegetation clearing. - biodiversity impact mitigation and minimisation measures identified in Table 11 of the BDAR are to be implemented at the appropriate stage of the development - a transplanting methodology statement be prepared prior to works commencing on site. The proposed method and final location of transplants must not have any adverse impacts upon any native vegetation identified for retention within the BDAR.

NSW Rural Fire Service (NSW RFS)	
EIS	NSW RFS recommended the Taronga Zoo Emergency Response Plan be updated to include the RACC development and contain a section consistent with the document <i>A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan</i>.
Environment Protection Authority (EPA)	
EIS	No comment
Fire & Rescue NSW (FRNSW)	
EIS	No comment
Animal Welfare	
EIS	No response.
Foreshores and Waterways Planning and Development Advisory Committee (the Committee)	
EIS	No response.

5.4 Key issues – Council and Community

Council Key Issues

Table 3 | Summary of Mosman Council's submission

Mosman Council (Council)	
	The Council did not object to the proposal and provided the following comments: - the building has been designed to be low scale and sit below the existing tree canopy cover to ensure it will not be highly visible from the Harbour - to ensure the dominance of landscaping over new built elements, the provision of suitable locally indigenous large canopy trees should be provided around the building - a Construction Traffic Management Plan (CTMP) should be required and should consider the cumulative impact for all construction projects currently being undertaken at the Zoo. The CTMP should also be referred to Council's Local Traffic Committee for approval - construction noise should be limited to the hours of 7am to 5pm, Monday to Friday and 8am to 1pm on Saturdays with no audible works at other times
RtS	No response.

Public Submissions

A total of 14 submissions (including 10 objections) were received from the general public in response to the exhibition. One public submission was received in support of the application and 3 public submissions provided comments. Submissions were received from three special interest groups being the Mosman Parks and Bushland Association, Headland Preservation Group and Blacktown & District Environment Group Incorporated.

Of the submitters 57.14% were from people located within 5 km of the site, 7.14% were from people living between 5 km to 10 km from the site and 35.7% were located greater than 10 km from the site. The key issues raised in the public submissions are summarised in **Table 3**.

Table 4 | Summary of key issues raised submissions from public and community groups

Issue	Proportion of submissions
Lack of engagement and consultation with: • public/ residents • community groups • NSW authorities	78.57%
Visual impacts / no visual impact assessment	57.14%
Overdevelopment of Taronga Zoo, including: • potential to be located outside Taronga Zoo • masterplan needed to predict future developments • Disneyfication of Zoo • extent of hardstand	57.14%
Tree removal and loss of natural character	28.57%
Built form and scale	21.43%
Cost of development	14.29%
Cumulative traffic impacts	7.14%

5.5 Response to submissions

The Department placed copies of all submissions received on its website and requested the Applicant provide a response to the issues raised in the submissions.

On 27 October 2021, the Applicant lodged a Response to Submissions (RtS) to address the issues raised in submissions and additional information requested by the Department.

The RtS included an updated Biodiversity Development Assessment Report (BDAR) and updated plans to reflect design refinements including a reduction to the extent of third storey component of the building. The RtS was made publicly available on the Department's website.

The Department forwarded the RtS to EESG and Mosman Council for comment. EESG advised the revised BDAR addressed its initial concerns and provided additional comments and recommended conditions of consent (discussed in **Section 6.3**). No response was received from the Council.

6 Assessment

The Department has considered the development, the issues raised in submissions and the Applicant's RtS in its assessment of the application. The Department considers the key issues associated with the development are:

- built form and visual impacts
- landscaping
- tree removal and biodiversity
- heritage.

Each of these issues are discussed in the following sections of this report. The Department's consideration of other issues relating to the application are addressed in **Section 6.6** of this report.

6.1 Built form and visual impacts

The Department notes there are no height or floor space controls for Taronga Zoo and therefore, a merit assessment of the built form of the proposal has been undertaken. The Department has also undertaken a detailed assessment of the potential visual impacts associated with the proposal as the site has a southerly aspect towards Sydney Harbour and is identified as within a 'Scenic Protection Area' under clause 6.4 of the Mosman Local Environmental Plan 2012 (MLEP).

The RACC is a part two, part three storey building with a total GFA of 1,210 m² and maximum height of 12.65 m at the southern site boundary. Due to the topography of the site, the building height at the northern footpath reduces to 5.53 m. The proposed design incorporates a green wall screen on the southern façade with a maximum height of approximately 8.4 m.

The Applicant also submitted an assessment of the potential visual impacts of the proposal from three vantage points, including Sydney Harbour, Curraghbeena Point and Cremorne Point, which demonstrate the site is surrounded by dense vegetation and the proposal would not be readily visible from the aforementioned vantage points.

A view of the site (hatched in yellow) from Sydney Harbour is provided in **Figure 11**, which shows the site is surrounded by extensive mature vegetation. The potential visual impacts have been alleviated through recessing the built form into the site's topography and minimising the overall height to sit below the tree canopy.



Figure 11 | View of site from Sydney Harbour highlighted in yellow (Source: Applicant)

Council considered the built form to be low in scale and sit below the existing tree canopy, noting it would not be highly visible from the Harbour. However, Council recommended a condition of consent be imposed requiring landscaping in the form of large canopy trees be provided around the proposed building.

The built form and visual impacts were identified as key issues in public submissions. Concerns were also raised about the potential overdevelopment of Taronga Zoo, including the need for a masterplan to guide future developments.

As part of the RtS, the Applicant submitted revised plans that incorporated amendments to the built form of the proposal. The final design reduced the GFA from 1,264 m² to 1,210 m². While the maximum height of the building has slightly increased by 12 cm (from 12.52 m), the extent of the enclosed area on Level 2 has been substantially reduced from 228.6 m² to 80.6 m².

A comparison of the design of the RACC building as originally submitted and following the RtS is provided in **Figure 12** to **Figure 15**.

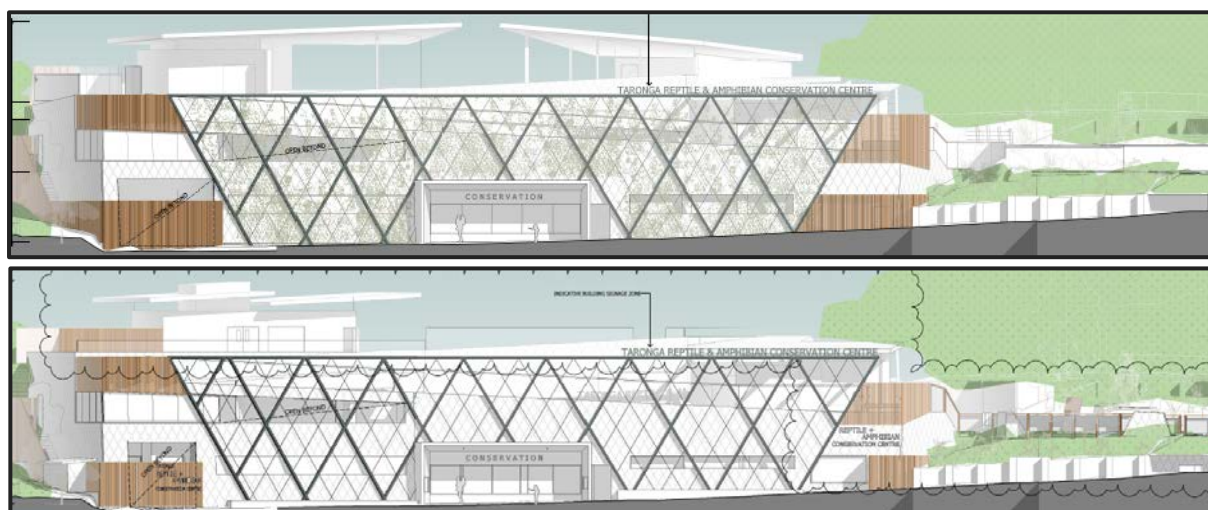


Figure 12 | Southern elevation: EIS (above) and RtS (below) (source: Applicant)

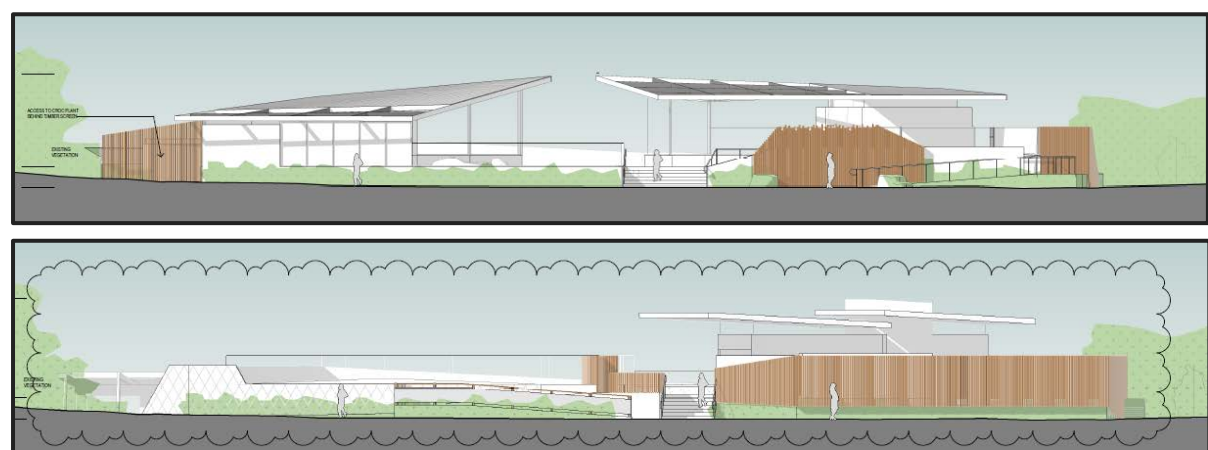


Figure 13 | Northern elevation: EIS (above) and RtS (below) (source: Applicant)

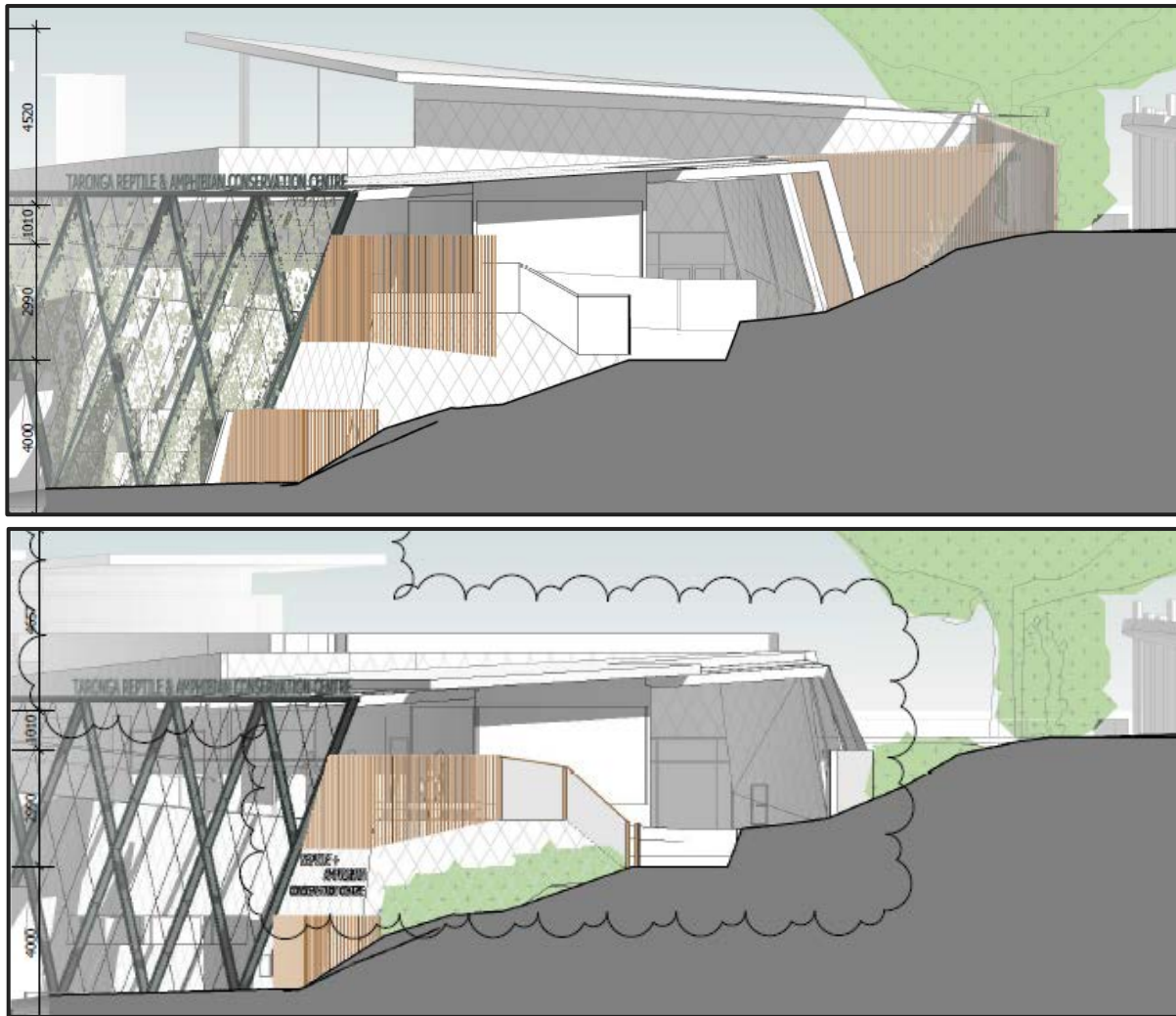


Figure 14 | Eastern elevation: EIS (above) and RtS (below) (source: Applicant)

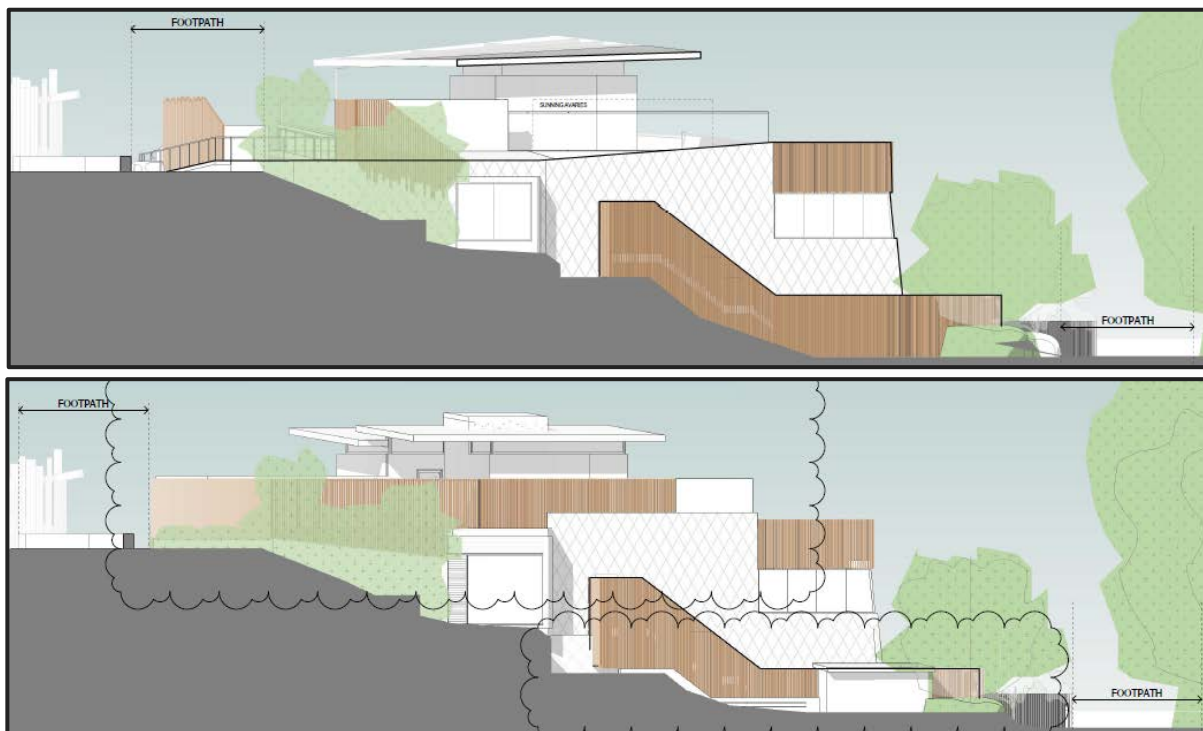


Figure 15 | Western elevation: EIS (above) and RtS (below) (source: Applicant)

In the RtS, the Applicant submitted the visual impact assessment as a separate Appendix to the architectural plans with each view enlarged, providing a better understanding of the proposed scale of the building and its visual impacts.

Additionally, as part of the RtS the Applicant advised the proposal has considered the existing *Zoo 2000 'The View to the Future' Master Plan* (Taronga Zoo Master Plan). The Applicant confirmed the proposal would comply with relevant Urban Design Principles within the Taronga Zoo Master Plan, including public access and linkages, conservation of significant bushland and other natural features, sensitive areas containing significant view lines, and East Gully Built Form Principles. The Department notes, as shown in **Figure 16**, the subject site is not located in a sensitive area or significant view line.



Figure 16 | Summary of sensitive areas containing significant view lines: RACC site in blue (source: Applicant and Zoological Parks Board of NSW)

The Department notes the Tamarin exhibit (south of the site) is heavily vegetated (**Figure 17**) and would act as a vegetation buffer minimising views of the site from Sydney Harbour. Further, the proposed landscaping (refer to **Section 6.2**) combined with the existing vegetation around the site would ensure landscaping remains the dominant feature of the site. Therefore, the condition recommended by Council, is not considered necessary as the proposal is considered to adequately maintain the dominance of the landscaping over built form through the incorporation of landscaping either side of the building and the proposed replacement planting strategy (as discussed in **Section 6.3**).

The Department also notes replacement trees would grow and mature over time and the proposed height of the building is comparable to the Elephant Barn to the south-east of the site, which has a maximum height of 9.3 m and is located closer to the Harbour (**Figure 17**).



Figure 17 | Left: view of site from southern pathway facing east. Right: view towards Sydney Harbour from the site from the southern pathway (source: the Department)

The visual impact of the RACC building from outside of Taronga Zoo, including from Sydney Harbour, is mitigated by the scale of the building, extent of tree coverage and site location. Further, the green southern façade would minimise the visual impact of potential glimpses visible through the existing tree coverage.

Overall, the Department considers the proposed built form and visual impacts are acceptable as:

- the reduction to the three-storey component of the building would minimise the perceived bulk of the built form and further reduces any potential visual impacts
- the scale and design of the RACC building is modest and sympathetic with the scale of the surrounding zoo facilities
- the proposed southern green facade, materials and landscaping would assist in minimising visual impacts
- the proposed building has been appropriately integrated into the site's topography
- the development would not result in any visual impacts to Sydney Harbour or the surrounding area as the design of the building is low in scale and below the tree canopy, and any views of the site would be shielded by mature vegetation and the topography of the site
- the development would not result in any overshadowing or other built form impacts on neighbouring properties given the site's location within Taronga Zoo and the significant distance from the nearest residential property.

To ensure the potential built form and visual impacts of the proposal are appropriately mitigated and managed, the Department also recommends the following conditions:

- trees proposed to be retained must be managed in accordance with recommendations detailed in the AIA and Amended AIA (discussed further in **Section 6.2**)
- suitable tree replacements must be provided in accordance with the offset strategy recommended in the Amended AIA (discussed further in **Section 6.2**)
- ongoing maintenance to the landscaping on the Southern Green Façade (discussed further in **Section 6.3**).

Subject to the recommended conditions, the Department considers the proposed built form and visual impacts of the proposal are acceptable.

6.2 Tree removal and biodiversity

The Applicant submitted an Arboricultural Impact Assessment (AIA) which identified the development would require the removal of 50 trees of low to high significance, including 9 of high significance, 4 of medium significance and 37 of low significance.

The Applicant also submitted a BDAR, which noted the majority of the development is located within historically modified land, adjacent to man-made structures and consisting of predominately planted and landscaped vegetation.

Tree removal (28.57%) was identified as a key issue in public submissions.

As discussed in **Section 5.5**, EESG requested the Applicant review the extent of the subject land in the BDAR as it differs to the EIS and to update Table 12 of the BDAR to incorporate requirements for the capture and relocation of a species of vesper bat (Southern Myotis) where required.

A revised BDAR was submitted as part of the RtS, which EESG considered to be generally consistent with the architectural plans in terms of the description and extent of the 'subject land'.

The revised BDAR concluded the development would directly impact approximately 0.10 ha of the Smooth-barked Apple – Coast Banksia / Cheese Tree open forest on sandstone slopes on the foreshores of the drowned river valleys of Sydney Plant Community Type (PCT). The Department notes the PCT is not listed as a threatened ecological community under the BC Act and 3 ecosystem credits would be required to offset impacts to this PCT.

Additionally, the revised BDAR identified the development would remove native vegetation with the potential to support foraging habitat for a species of vesper bat (Southern Myotis) and would require 2 species credits to offset this impact.

EES noted the native vegetation adjacent to the east of the building envelope has not been identified as being within the "subject land" and as such has not been subject to offsetting for any biodiversity impacts arising from the proposed development. EES raises no concern with complementary landscaping of this area as it is consistent with the existing use of the site; however, it recommended appropriate conditions of consent be applied noting that all areas of native vegetation identified in the BDAR for retention are to be retained and protected during all works.

An Amended AIA was also submitted as part of the RtS, which proposed the following offset strategy to replace the trees proposed to be removed:

- 1:1 with 1 x 25 litre pot size tree species for every low significance tree removed
- 2:1 with 2 x 75 litre pot size tree species for every medium significance tree removed
- 2:1 with 2 x 100 litre pot size tree species for every high significance tree removed.

Overall, this would result in 63 replacement trees being planted, resulting in 13 additional trees being planted overall. Replacement trees are proposed to be either within the RACC site or within the broader Zoo and would include both locally endemic and non-endemic trees – corresponding to the natural habitat of the species where planted within an exhibit.

The site contains six trees that are listed on the S170 Register, which are all proposed to be retained intact (discussed further in **Section 6.4**). In addition to this, the HIA identified various trees onsite as having cultural value, six of these trees have been identified as a priority for transplant (tree numbers

9, 10, 16, 21, 23 and 24). Trees numbers 9, 10, 21 and 24 are proposed to be relocated within the RACC building site, while trees 16 and 23 are proposed to be relocated to the Camel exhibit.

The Amended AIA submitted with the RtS considered the transplanting feasibility of these trees and confirmed them to be within good health range, good condition and have a medium to high estimated life expectancy. Additionally, the Amended AIA recommended a transplanting methodology statement be produced by a suitably experienced and qualified Arborist or tree transplanting specialist prior to transplantation and be approved by the project Arborist. Where transplanting is unsuccessful, the Amended AIA recommended suitable replacements be at an offset requirement of 2:1 with a pot size no less than 500 L and be planted in locations that support above and below ground future growth.

EESG recommended conditions of consent requiring the preparation of a transplanting methodology statement prior to works commencing on site. The proposed method and final location of transplants must also not result in any adverse impacts upon native vegetation identified for retention within the BDAR. The Department supports EESG's proposed conditions.

In regard to the condition recommended by Council, the Department considers the proposal to adequately maintains the dominance of the landscaping over built form through the incorporation of landscaping either side of the building and the proposed replacement planting strategy.

The Department considers the proposed tree removal and biodiversity impacts are acceptable as:

- while the proposal would require the removal of 50 trees, the replacement planting strategy would result in a total of 63 replacement trees being planted, resulting in 13 additional trees planted across the site
- none of the trees that would be removed are of heritage significance
- while the proposal would result in some removal of native vegetation and potential foraging habitat for the Southern Myotis Bat, the Department is satisfied the impact has been minimised and avoided where possible, and any residual impacts would be offset by planting new trees and vegetation and the purchase of biodiversity credits
- the trees that would be retained would be managed in accordance with recommendations detailed in the AIA and Amended AIA, including development of a specific tree protection plan, monthly site inspections and protection of trees in accordance with relevant Australian standard
- biodiversity impacts would be managed in accordance with management measures detailed in BDAR, including assigning an experienced, suitably qualified and licenced wildlife expert to undertake pre-clearing survey and clearing supervision all vegetation in relation to the proposed development
- Council raised no concerns about the proposed tree removal.

The Department recommends the following conditions:

- trees proposed to be retained must be managed in accordance with recommendations detailed in the AIA and Amended AIA
- suitable tree replacements must be provided in accordance with the offset strategy recommended in the Amended AIA
- a transplanting methodology statement must be included in the project's construction environmental management plan (CEMP)

- a specific tree protection plan must be included in the project's construction environmental management plan (CEMP)
- the CEMP must include the management measures detailed in the BDAR
- the Applicant must purchase and retire 3 PCT: 1778 Smooth-barked Apple - Coast Banksia / Cheese Tree open forest on sandstone slopes on the foreshores of the drowned river valleys of Sydney ecosystem credits and 2 species credits for Myotis Macropus (Southern Myotis) prior to any vegetation clearing.

Subject to the recommended conditions, the Department considers the proposed tree removal and biodiversity impacts are acceptable.

6.3 Landscaping

The development would include tree removal, planting and landscaping to create three landscape precincts, including the Forest Walk, the Gully and the Green Façade, as shown in **Figure 18**. Tree removal and biodiversity is considered in **Section 6.2**.

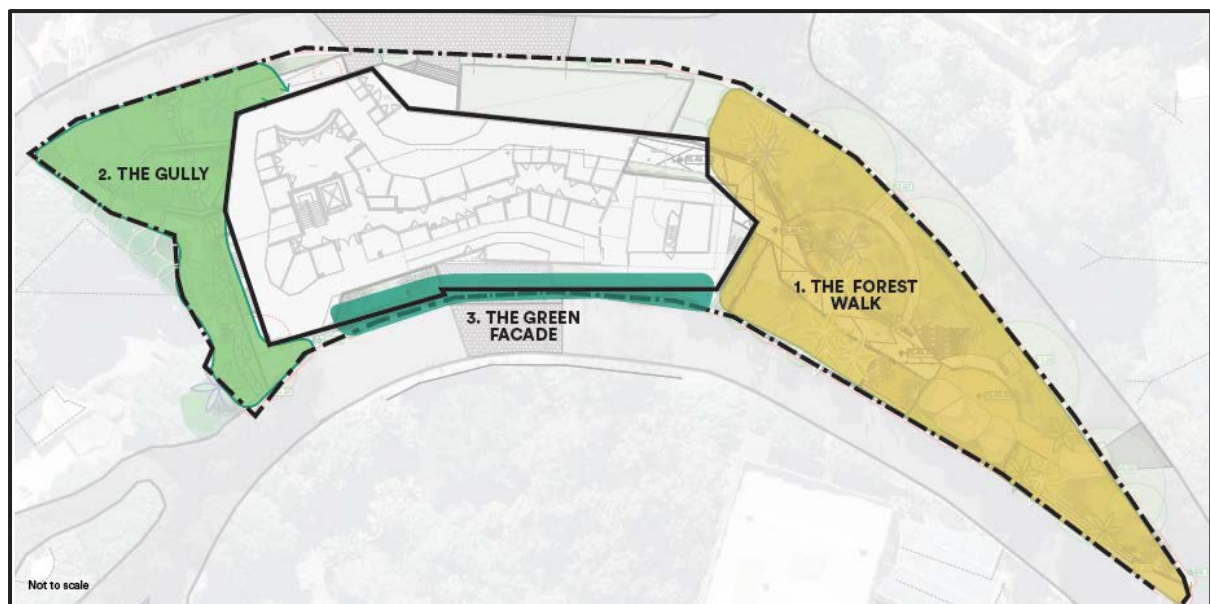


Figure 18 | Landscape Structure Plan (Source: Applicant)

The Forest Walk forms the main entrance to the east of the site, as shown in **Figure 19**. The pathway is proposed to be constructed of concrete with sawcuts to represent reptilian scales and will feature a 'serpentine' slate swale to the side of the pathway. The landscape design incorporates the existing heritage aviaries and trees (**Section 6.4**), as well as additional planting inspired by a Gondwana rainforest landscape. This precinct will provide a potential replanting location for the trees proposed to be transplanted.

Following consultation with the Traditional Custodians and represented Registered Aboriginal Parties (RAPs), the proposal's interpretation of Country has been incorporated into the landscape design, including the retention and re-use of the sandstone boulder on site in the landscape design. The rock outcrop will be relocated from within the building footprint and incorporated into the Forest Walk landscape (**Figure 19**).

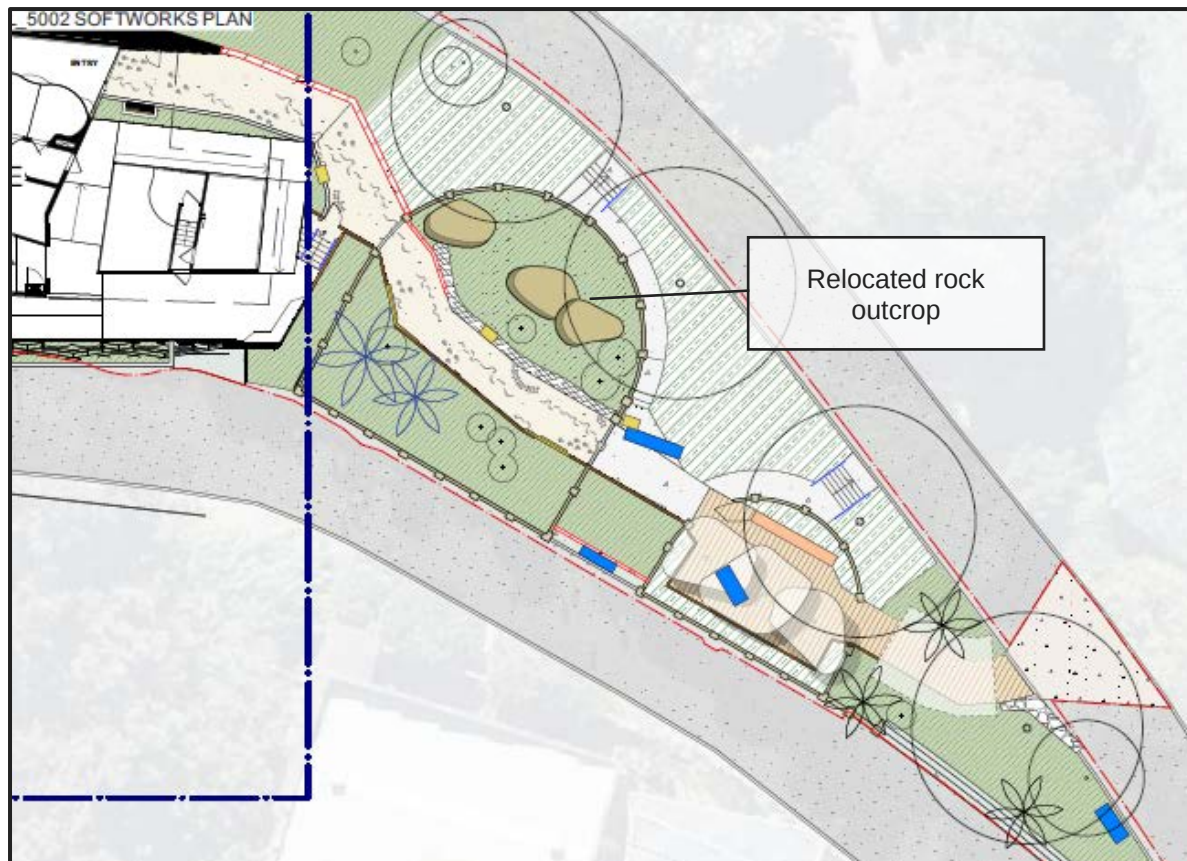


Figure 19 | Forest Walk Landscaping – General Arrangement (Source: Applicant)

The Gully is to the west of the RACC building and reflects the historic gully within the site, as shown in **Figure 20**. The area will be landscaped with boulders and grasses to form the appearance of a dry creek. This precinct will also provide potential replanting location for the trees proposed to be transplanted. The path and steps listed on the S170 Register will be retained intact.

The Southern Façade forms a key design feature of the building comprising of climbing plants planted at base of a mesh fixed to the building, as shown in **Figure 21**. The facade utilises a trellis system to support climbing plants on the vertical facade of a building. The proposed planting schedule comprises of endemic and non-endemic vines, including the Kangaroo Vine, Gum Vine (endemic) and Blue Trumpet (non-endemic).

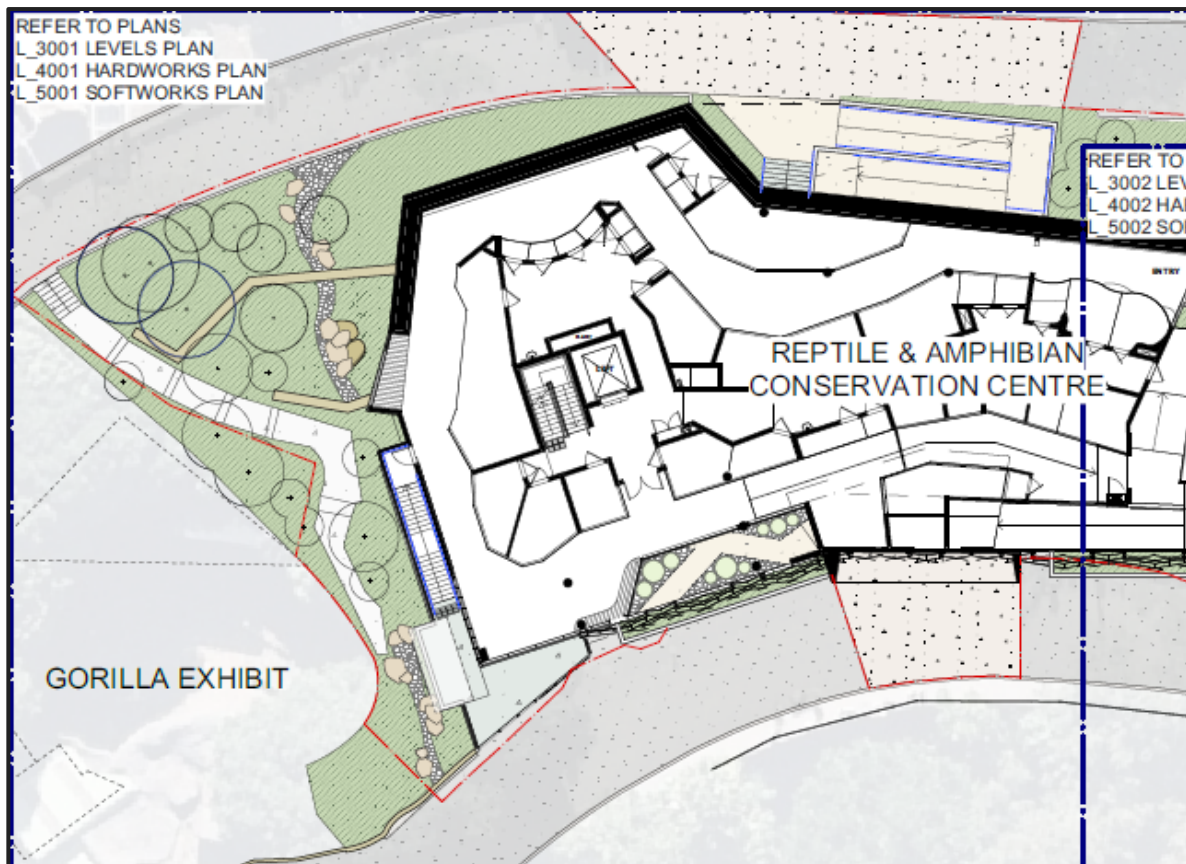


Figure 20 | The Gully Landscaping – General Arrangement (Source: Applicant)



Figure 21 | Landscaping Plan: The Southern Green Façade (Source: Applicant)

The Department considers the proposed landscaping acceptable as:

- the green façade will minimise the building bulk when viewed from the southern pathway and the impact of potential glimpses visible through the existing tree coverage from the Harbour
- it softens the appearance of the proposed building, offering improved amenity for visitors by providing natural settings, seating, and places for socialising
- the landscaped areas would substantially retain the built and landscape elements listed on the S170 Register and would provide transplant locations for culturally significant landscape elements
- the Forest Walk and Gully landscape precincts provide opportunities for potential replanting locations for the trees proposed to be transplanted
- the existing rock outcrop will be relocated and retained on site within the Forest Walk landscape

- it provides accessible paths to, and throughout, the building.

The Department recommends a condition relating to the ongoing maintenance to the landscaping on the Southern Green Façade.

6.4 Heritage

Taronga Zoo is heritage listed in the MLEP. The item is identified as “Rainforest Aviary”, “Elephant House”, bus shelter and office, floral clock and upper and lower entrance gates’. None of the items individually noted in the MLEP listing are located within the RACC site (subject site), however, the floral clock and Elephant House are within close proximity. Additionally, there are 12 items listed on the Zoological Parks Board Section 170 Heritage and Conservation Register (S170 Register) within the site, as shown in **Figure 23**. It is noted this includes the overall zoo (Item 82A) and a tree that has since died and been removed (Item 269L).

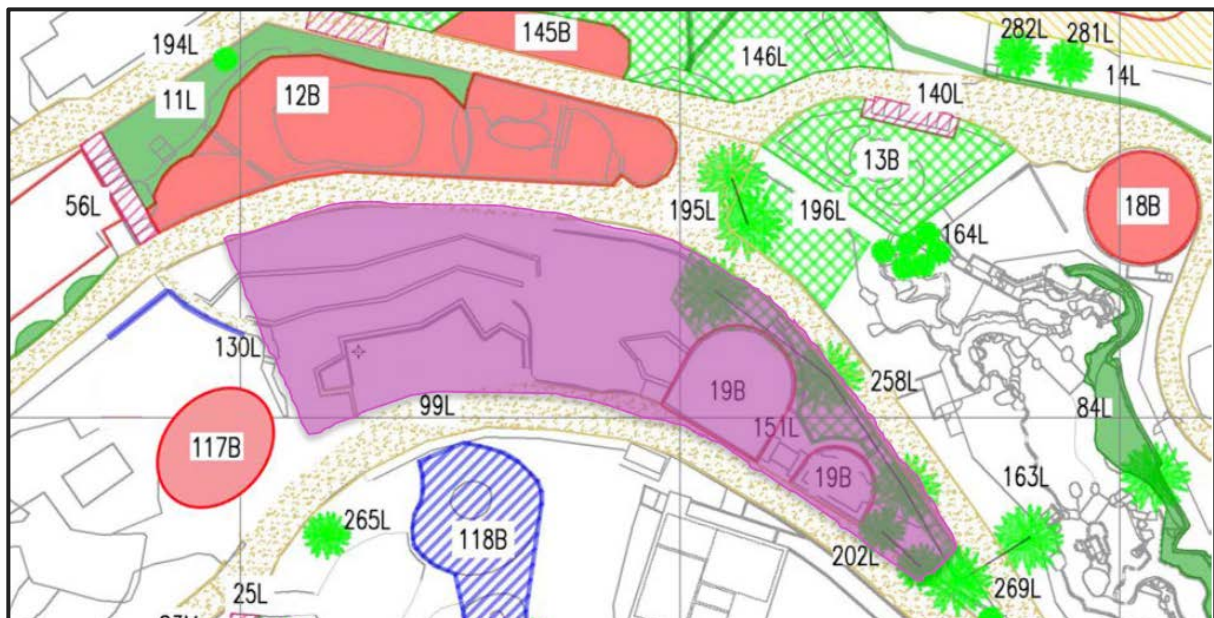


Figure 22 | Location of Section 170 heritage items within the site (shaded in purple) (source: Applicant)

The HIA advised the most culturally significant structure within the site were the remnants of the ‘D-shaped’ aviaries (Item 19B) constructed in 1915, as shown in **Figure 23** and **Figure 24**. The remnants of the aviaries include the outer walls which define the former aviary layout.

The proposal seeks to construct an on-grade pathway to the RACC building through the aviary structures, which would require the removal of sections of the aviary walls. While resulting in a loss of some fabric, the HIS considered the modification to the aviary walls as preferred to the alternative of constructing a raised ramp structure, as this would be more visually dominant and obscure the aviary layout. The proposed pathway breaches the wall western wall of the larger aviary structure at a point where the aviary wall had been built over a natural sandstone outcrop, which is proposed to be relocated into the Forest Walk landscape design (as discussed in **Section 6.3**). The HIS considered this to have a neutral heritage impact.

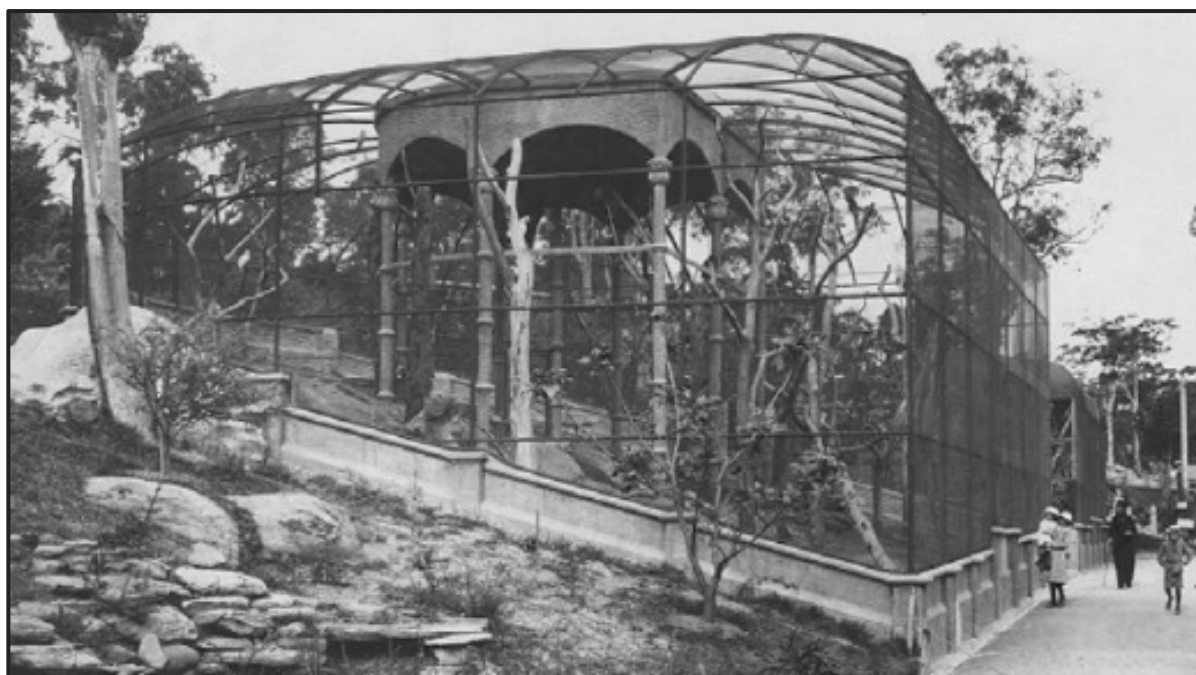


Figure 23 | Historic image of the larger of the two aviaries (undated) (source: TCSA Archives; Applicant)

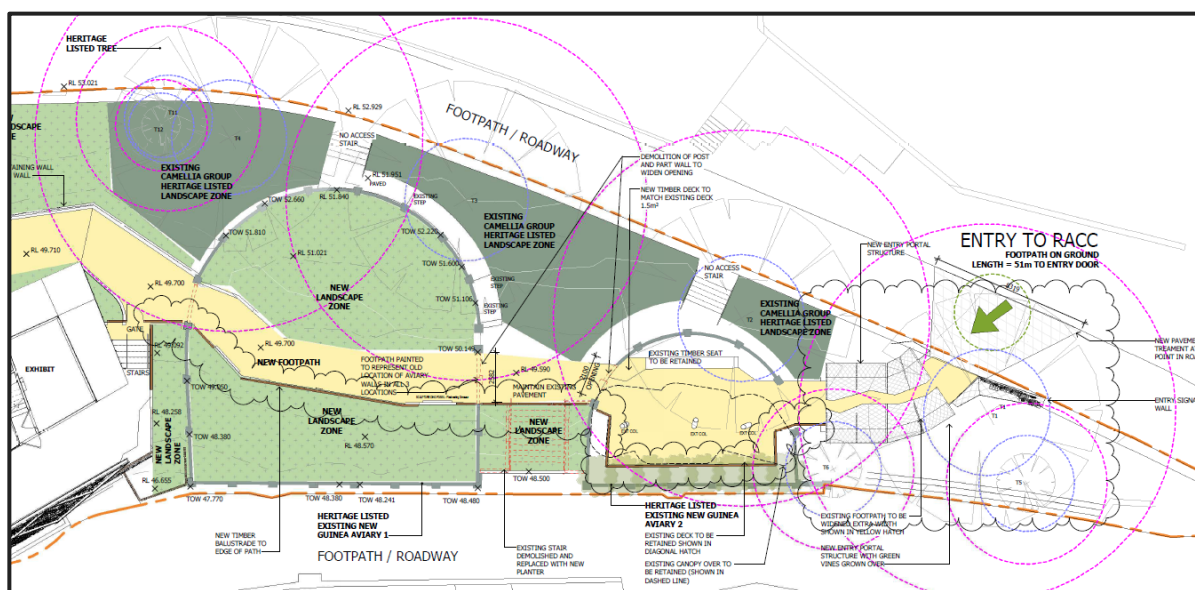


Figure 24 | Eastern entry to RACC building through the remnants of the 'D-shaped' aviaries (Item 19B) (source: Applicant)

While not listed on the S170 Register, the HIA identified landscape elements within the site as having cultural value. While one Cabbage Palm is proposed to be removed, the remaining six trees have been identified as a priority for transplant (tree numbers 9, 10, 16, 21, 23 and 24).

The HIS and HIS Addendum outlined the potential negative impacts from the proposal and noted these to be subjective and relate to the introduction of a building in a location not previously occupied by a structure of similar scale. However, the HIS further considered the proposal to result in a positive project outcome as all of the listed or assessed fabric and layout of exceptional or high cultural significance can be retained intact or relocated within the site or retained with only minor modifications.

The Historical Archaeological Assessment (HAA) states that the site is subject to high levels of disturbance and has low potential for archaeological remains to be located in areas of excavation.

Heritage NSW noted that given the documentation of the history and development of the zoo, the archaeological research potential of the site is limited and there is a low likelihood of discovering evidence of early European activity.

Heritage NSW agreed with the conclusion of the HAA in that subsurface disturbance would occur within the development footprint of the RACC, with some minor impacts may occur in other areas subject to demolition and landscaping works including to the aviaries. Heritage NSW supported the recommendation for an archaeological monitoring program for works within the southwestern area of the site and for the extant aviary walls, with an unexpected finds procedure to be implemented for the remainder of the site.

Heritage NSW recommended the Unexpected Finds condition be included as a condition of consent to manage historical archaeology. As part of the RtS, the Applicant accepted this as a condition of consent.

The Department considers the proposed heritage impacts are acceptable as:

- the development would not result in any significant heritage impacts and the development's purpose and approach to heritage management is consistent with the Conservation Strategy and Landscape Management Plan for Taronga Zoo
- the development would substantially retain the built and landscape elements onsite listed on the S170 Register, including the 1915 aviary (19B) subject to some modifications
- the impacts on the items listed on the S170 Register would be managed in accordance with the management measures detailed in the Addendum HIS, including continued consultation with the Taronga Zoo heritage advisor, archival recording, notifying items to be demolished to Heritage Council NSW and protection for all built and landscape elements intended to be retained.
- all trees listed on the S170 Register would be retained and additional landscape elements identified as having cultural significance would be relocated except for one palm that would be removed
- the development would retain significant heritage views as it is located below the tree canopy and would be not visible from Sydney Harbour.

The Department recommends that an unexpected finds procedure is implemented in accordance with Heritage Council of NSW's recommendation. The Department also recommends that heritage impacts be mitigated and managed in accordance with the management measures detailed in the Addendum HIS and HAA.

Subject to the recommended conditions, the Department concludes the heritage impacts of the development are acceptable.

6.5 Aboriginal cultural heritage

The Applicant submitted an Aboriginal Cultural Heritage Assessment (ACHAR) with the application, which concluded the site does not contain any Aboriginal objects or places registered on the Aboriginal Heritage Information Management System (AHIMS). The ACHAR notes the site is located on the Bradley's Head Peninsula, which is identified by Registered Aboriginal Parties (RAPs) as culturally significant with generally high cultural significance identified for the whole school site.

The ACHAR notes the site has undergone high to extreme levels of disturbance associated with the clearance of vegetation, the construction and demolition of Zoo facilities, including the seal theatre and the penguin pond, and the bulk excavation of the site and introduction of fill to create the terraced profile. In consideration of this, the ACHAR determined the archaeological potential of the area to be low.

Further, the ACHAR notes a sandstone boulder within the central northern portion of the site has been identified as modified by Europeans with the presence of drill marks and metal poles through the boulder, potentially from fencing. Sandy deposits have been sighted below the boulder. Therefore, the ACHAR determined there to be low-moderate potential in this area.

Heritage NSW's Aboriginal Cultural Heritage Division (ACH) reviewed the ACHAR and concluded that while the proposed development appears to have low potential to impact on Aboriginal cultural heritage, there is potential for Aboriginal objects to be identified beneath the sandstone boulder in the study area.

Due to this, ACH supported the recommendation outlined within the ACHAR requiring test excavations if potential for intact soils are identified once the boulder is moved. In addition to this, ACH recommended:

- any Aboriginal cultural heritage inductions would benefit from the involvement of Aboriginal community representatives
- the Chance Finds protocol for Aboriginal objects be included as part of the Construction Environmental Management Plan (CMP) prepared for the development works.

The Department notes that the site has been subject to high levels of disturbance and therefore it is considered unlikely that the development would impact on any unknown Aboriginal objects or archaeological deposits. The Department is satisfied that the proposed recommendations detailed in the ACHAR can effectively manage potential Aboriginal heritage impacts.

The Department recommends the recommendations detailed in the ACHAR be implemented to manage potential impacts, including an Aboriginal Cultural Heritage Induction, Archaeological Chance Find Procedure, Human Remains Procedure and Registered Aboriginal Parties (RAP) consultation.

Subject to the recommended conditions, the Department considers the potential Aboriginal heritage impacts acceptable.

6.6 Other issues

The Department's consideration of other issues is provided at **Table 5**.

Table 5 | Department's assessment of other issues

Issue	Findings	Recommendations
Traffic and car parking (operation)	• The Applicant submitted a TIA to assess the potential traffic and car parking impacts associated with the proposal. • The TIA noted that the development would result in a temporary increase of up to 43 vehicle trips per hour during the site peak hours.	The Department recommends the following condition: • The existing Green Travel Plan is updated in consultation with TfNSW prior to the

	• The TIA concluded that the temporary increase in vehicle trips would not impact the level of service of the surrounding key intersections. • While the development does not propose any additional car parking, the TIA considered the existing multi-storey car park to be capable of accommodating the temporary increase in parking demand generated by the initial opening. • TfNSW and RMS recommended that the existing Green Travel Plan be updated in consultation with TfNSW. • The Department is satisfied the proposal would not adversely impact the surrounding road network and that any increase in parking demand would be temporary and could be accommodated within the existing car park. • The Department recommends that the Green Travel Plan is updated as recommended by TfNSW and RMS. • Subject to the recommended condition, the Department considers the proposed traffic and car parking impacts are acceptable.	commencement of use.
Noise and Vibration (operation)	• An Acoustic Assessment was submitted as part of the application, which concluded the predicted patron noise levels comply with the noise level criteria during the day and evening. • Due to the central location within the Zoo, the Acoustic Assessment considered that noises from the public address system and patrons would be inaudible to all residential receivers outside the Zoo. • The EPA raised no concerns with the proposal.. • The Department is satisfied that the patron noise levels comply with the relevant criteria and can be managed in accordance with existing operational management of the zoo. • The Department recommends a condition of consent requiring certification that the proposed noise mitigation measures for all mechanical plant achieve compliance with the requirements of the NSW Noise Policy for Industry. • Subject to the recommended condition, the Department concludes the proposed operational noise impacts are acceptable.	The Department recommends the following condition: • Certification from an appropriately qualified acoustic engineer that the proposed noise mitigation measures for all mechanical plant will achieve compliance with the requirements of the NSW Noise Policy for Industry.
Construction impacts	<u>Traffic</u> • The TIA provided a cumulative assessment into the potential construction traffic and car parking impacts associated with the proposal as the RACC will be constructed simultaneously with the approved Upper Australia exhibit. • During construction, the development would generate approximately 44 vehicle trips per hour during the peak periods. It is noted this reduces	The Department recommends the following conditions: • A detailed CTMP is prepared in consultation with TfNSW prior to the commencement of works.

- to approximately 6 vehicle trips per hour outside the peak period.
- The TIA concluded that traffic impacts would be minor and would not adversely impact on the surrounding road network.
- TfNSW noted it was unclear whether loading and unloading activities of the articulated vehicles would be undertaken on-site.
- TfNSW recommended that a detailed Construction and Traffic Management Plan (CTMP) is prepared in consultation with TfNSW. Council recommended the CTMP be approved by the Local Area Traffic Committee (LATM).
- A detailed CNVMP is prepared in to manage construction noise and vibration in accordance with the management measures detailed in the Acoustic Assessment.
- A detailed CEMP is prepared and includes an Erosion and Sediment Control Plan to manage potential construction impacts.

Noise

- The Acoustic Assessment submitted with the proposal predicted the noise levels for closest residential receivers (over 200 m from the site) could exceed the Noise Management Levels (NML) defined in the Interim Construction Noise Guidelines (ICNG) without any noise mitigation measures applied.
- The Acoustic report advised that through implementing three basic mitigation measures (hoarding, petrol generators and bored piling) the resulting noise levels may be up to 3 dB above the NML, which is considered to be a marginal impact.
- No receivers are predicted to be 'highly affected' (experience noise levels of LAeq (15 min) 75 dBA or above) during any stage of the works.
- The Acoustic Report recommended a dilapidation survey of up to 50m from the work site be undertaken prior to high vibration works.
- Council and the EPA raised no noise concerns with the proposal.

Assessment

- The Department is satisfied that any potential construction impacts can be appropriately mitigated and managed in accordance with the project's Construction Environmental Management Plan (CEMP), CTMP and Construction Noise and Vibration Management Plan (CNVMP).
- The Department recommends that the recommended conditions from TfNSW be included in the conditions of consent. However, the Department considers approval of the CTMP by the LATC is not necessary due to the minor traffic impacts of the proposal.
- Subject to the recommended conditions, the Department considers the potential construction impacts can be appropriately mitigated and managed to an acceptable level.

Stormwater and flooding

- Level 1, Level 2 and roof catchments will be captured stormwater via downpipes that connect to the proposed inground stormwater drainage on the ground floor. Ground floor drainage would be retained along the northern perimeter of the proposed building.
- All stormwater drainage will be captured by a series of inground pit and pipes connecting to the existing downstream stormwater drainage of Taronga Zoo to discharge via gravity.
- As the existing stormwater pits along the northern boundary of the site would be within the proposed building footprint, these will be relocated to the abutting northern road.
- The site is not subject to flooding due to the topography of the site which slopes towards Sydney Harbour.
- The Stormwater Management Plan identifies a 30% increase in the post development discharge. The management plan noted the Council's drainage engineers raised no objections in principle to this, on the basis the drainage connection is to private internal drainage.
- No concerns relating to stormwater or flooding were raised by the Council or EESG.
- The Department recommends the stormwater system be design in accordance with the recommendations detailed in the Stormwater Management Plan.
- Subject to the recommended conditions, the Department considers stormwater and flooding impacts are acceptable.

The Department recommends the following condition:

- Stormwater system be design in accordance with the recommendations detailed in the Stormwater Management Plan.

Contamination and hazardous materials

- The Applicant submitted a preliminary site investigation (PSI).
- The PSI advised that testing had indicated contaminant concentrations in the soil samples were within the adopted site assessment criteria, in particular health-based and ecological based screening levels.
- Two samples taken outside the site area had B.TEQ exceedances, which the PSI attributed to likely trace ash contamination.
- The PSI recommended that an Asbestos and Unexpected Finds Protocol (UFP) be prepared and incorporated into the Environmental Management Plan.
- The PSI recommended a further 7 sampling points be tested (9 in total within the site) in accordance with Table A of Contaminated Sites Sampling Design Guidelines, Environmental Protection Agency, September 1995.
- The EPA raised no concerns about contamination.

The Department recommends the following conditions:

- Contamination and hazardous materials are managed in accordance with the recommendations detailed in the PSI.
- An unexpected contaminated land and asbestos finds procedure is prepared.

- Based on the findings of the PSI the Department considers the site can be made suitable for the proposed development, and that any potential contamination and hazardous materials can be managed in accordance with the recommendations detailed in the PSI.
- Subject to the recommended conditions, the Department considers the potential contamination and hazardous materials impacts are acceptable.

Bushfire impacts

- The site is mapped as bushfire prone land in Council's bushfire prone land map. The Applicant provided a Bushfire Assessment in accordance with the *Planning for Bushfire Protection 2019*.
- The Bushfire Assessment noted the nearest areas of unmanaged potential bushfire hazard vegetation is greater than 200 m from the RACC site which is on the eastern side of Bradleys Head Road.
- RFS recommended the Taronga Zoo Emergency Response Plan be updated to include the RACC and contain a section consistent with *A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan*.
- The Department recommends the Taronga Zoo Emergency Response Plan be updated to include specific reference to the RACC facility.
- Subject to the recommended conditions, the Department considers the potential bushfire impacts are acceptable.

The Department recommends the following condition:

- The Taronga Zoo Emergency Response Plan be updated to include specific reference to the Reptile and Amphibian Conservation Centre

Animal welfare

- The proposal aims to provide an improved exhibit for the welfare of the Zoo's reptile and amphibian collection.
- The Department notified the Animal Welfare division of NSW DPI of the development, but no response was received.
- The Department considers the proposed exhibits are consistent with contemporary animal welfare requirements and would achieve best-practice operations and management outcomes.
- The Department recommends the Applicant obtain all necessary permits and approvals required under the *Exhibited Animals Protection Act 1986* prior to the commencement of works and prior to the commencement of operation.

The Department recommends the following condition:

- All necessary permits and approvals required under the *Exhibited Animals Protection Act 1986* are obtained prior to the commencement of works and prior to the commencement of operation.

Cost of project

- The cost of the project given the COVID pandemic was raised in public submissions.
- The RtS noted the project is partially funded by the NSW Government's COVID relief stimulus budget package which aims to promote tourism and jobs in NSW.

No conditions are recommended.

- While the cost of the project is ultimately a matter for the Applicant, the Department has considered the economic impacts of the proposal in the locality and is satisfied the proposal would not result in any significant impacts. Further, the Department notes the proposal would result in positive economic impacts through promoting visitors to the zoo and the creation of jobs during construction.
 - The Department's assessment therefore concludes the proposal would not result in any adverse economic impacts in the locality.
-

7 Evaluation

The Department has reviewed the EIS and RtS, and assessed the merits of the development, taking into consideration advice from government agencies. Issues raised by Council and in public submissions, have been considered (as outlined in **Appendix B**) and all environmental issues associated with the development have been thoroughly addressed. The Department has considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ESD (as outlined in **Appendix C**).

The Department has carefully considered the impacts associated with the development, and considers it should be approved for following reasons:

- it would help reinforce Taronga Zoo as one of Sydney's premier tourist attractions, create an improved experience for visitors and provide upgraded animal facilities to meet current standards
- the scale and design of the RACC building is modest and appropriate for the site as it has been sympathetically integrated into the zoo's topography
- the proposed materials and landscaping would help minimise the built form and visual impacts of the RACC building from the surrounding area and Sydney Harbour
- the development would not result in any amenity impacts on neighbouring properties given the site's context within Taronga Zoo and distance from the nearest residential property
- it would not result in any significant traffic or car parking impacts as any increase in traffic would be minor and limited to the initial opening weeks
- it would not result in any significant heritage or Aboriginal heritage impacts and the approach to heritage management is consistent with the Conservation Strategy and Landscape Management Plan for Taronga Zoo and the development would substantially retain the built and landscape elements onsite listed on the S170 Register
- while the proposal would result in some removal of native vegetation and potential foraging habitat for the Southern Myotis Bat, the Department is satisfied the impact has been minimised and avoided where possible and any residual impacts would be offset by planting 63 replacement trees being planted (resulting in 13 additional trees) in accordance with the tree replacement strategy and the purchase of biodiversity credits
- the construction impacts would be temporary and would be managed in accordance with the project's Construction Environmental Management Plan and associated sub plans

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

8 Recommendation

It is recommended the Director Key Sites Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application
- **agrees** with the key reasons for approval listed in the notice of decision
- **grants consent** for the application in respect of SSD 17483577, subject to the conditions in the attached development consent
- **signs** the attached development consent and recommended conditions of consent **Appendix D**).

Recommended by:



Lucinda Craig
Planning Officer
Key Sites Assessments

Recommended by:



Cameron Sargent
Team Leader
Key Sites Assessments

9 Determination

The recommendation is **Adopted** by:

 24 December 2021

Anthony Witherdin

Director

Key Sites Assessments

Appendices

Appendix A – List of referenced documents

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

<https://www.planningportal.nsw.gov.au/major-projects/project/41686>

Appendix B – Community Views for Draft Notice of Decision

Issue	Consideration
<i>Public Issue:</i> • Lack of engagement and consultation with: - o public/ residents - o community groups - o NSW authorities	<i>Assessment:</i> • The Applicant has undertaken consultation in accordance with the SEARs. • The Department considers that the Applicant has undertaken sufficient engagement and consultation on the proposal. • The Department notes that its notification and public participation statutory obligations have also been satisfied as discussed in Section 5. <i>Recommended Conditions/Response:</i> • No conditions are recommended.
<i>Public Issue:</i> • Visual impacts / No visual impact assessment	<i>Assessment:</i> • Public submissions raised concerns with the proposal's visual impacts. • The Applicant submitted a Visual Impact Assessment Package that demonstrated the proposal would not be visible from three vantage points, including Sydney Harbour, Curraghbeena Point and Cremorne Point. It is noted views of the site from the three vantage points are limited due to the extent of mature vegetation that surrounds the site and the steep topography. • Following the RtS, the Applicant submitted revised plans that incorporated a substantial reduction to the extent of enclosed area on Level 2, which is considered to further minimise the visibility of the building from Sydney Harbour. • Council's submission acknowledged the building would sit below the existing tree canopy cover to ensure it would not be highly visible from the Harbour. • The Department considers visual impacts to be acceptable. • This matter is discussed in further detail in Section 6.1. <i>Recommended Conditions/Response:</i> • Trees proposed to be retained must be managed in accordance with recommendations detailed in the AIA and Amended AIA. • Suitable tree replacements must be provided in accordance with the offset strategy recommended in the Amended AIA. • Ongoing maintenance to the landscaping on the Southern Green Façade.
<i>Public Issue:</i> • Built form and scale	<i>Assessment:</i> • Public submissions raised concerns with the proposed built form and/or scale. • The built form has been designed to respond to the site's topography which has a 7.1 m height difference between the northern and southern pathways. • The revised plans submitted with the RtS reduced the extent of enclosed area on Level 2 and therefore, the extent of the three-storey component has been substantially reduced. • The Department considers the building is modest in scale and has an appropriate built form. • This matter is discussed in further detail in Section 6.1. <i>Recommended Conditions/Response:</i> • No conditions are recommended.

Public Issue:

- Overdevelopment of the site, including:
 - o Potential for RACC to be located outside Taronga Zoo
 - o Masterplan needed to predict future developments
 - o Disneyfication of zoo
 - o Extent of hardstand

Assessment:

- Public submissions raised issues relating to the overdevelopment of Taronga Zoo, including the need for a masterplan to be developed to predict future developments, potential for Disneyfication of the Zoo and the extent of hardstand.
- The purpose of the proposed development is to replace the existing reptile and amphibian exhibits within the Serpentaria.
- The Department has undertaken a detailed assessment of the proposal and considers it does not represent an overdevelopment of the site.
- The site is in an area previously disturbed and used for animal exhibits.
- While a new masterplan is not proposed, the proposal is constant with the existing Zoo 2000 'The View to the Future' Master Plan (Taronga Zoo Master Plan).
- The extent of hardstand is minimised by the incorporates landscaping to either side of the RACC building and the Applicant has proposed a replacement planting strategy for tree removal.

Recommended Conditions/Response:

- No conditions are recommended.

Public Issue:

- Tree removal
- Loss of natural character
- Loss of natural heritage values

Council Issue:

- Addition of suitable locally indigenous large canopy trees to ensure the dominance of landscaping

Assessment:

- Public submissions raised concerns over the proposed tree removal and loss of natural character.
- The site is in an area previously disturbed and used for animal exhibits, and the vegetation proposed for removal does not incorporate any remnant bushland.
- None of the trees to be removed are of heritage significance.
- While 50 trees that would be removed, the replacement planting strategy would result in 63 trees being planted either within the RACC site or within the broader Zoo.
- The proposal incorporates landscaping to the east and west of the building and a green southern façade.
- The Department considers the proposal would maintain the dominance of the landscaping over built form through the incorporation of landscaping either side of the building and the proposed replacement planting strategy.
- This matter is discussed in further detail in **Section 6.2**.

Recommended Conditions/Response:

- Conditions are recommended requiring:
 - o trees proposed to be retained must be managed in accordance with recommendations detailed in the AIA and Amended AIA
 - o suitable tree replacements must be provided in accordance with the offset strategy recommended in the Amended AIA
 - o a specific tree protection plan must be included in the project's construction environmental management plan (CEMP).

Public Issue:

- Cost of development

Assessment:

- Public submissions raised concern over the cost of development.
- The Department considers the proposal would not result in any significant economic impacts on the locality.
- This matter is discussed in further detail in **Section 6.6**.

Recommended Conditions/Response:

- No conditions are recommended.
-

Public and Council Issue:

- Cumulative traffic impacts

Assessment:

- Public submissions raised concerns over the cumulative traffic impacts resulting from the various developments at Taronga Zoo.
- As the RACC would be constructed simultaneously with the previously approved Upper Australia exhibit, the TIA submitted with the EIS assessed the cumulative traffic generation. This concluded that traffic impacts would be minor and would not adversely impact on the surrounding road network.
- In regard to the operational traffic impacts, the proposal would replace the existing Serpentina and as such, any increase in traffic would be minor and limited to the initial opening weeks. The TIA confirmed that any temporary increase in traffic can be accommodated within the existing car park and that any temporary increase in vehicle trips would not impact the level of service of the surrounding key intersections.
- The Council recommended a CTMP be required that considers the cumulative impact for all construction projects currently being undertaken.
- TfNSW and RMS reviewed the proposal and recommended that the existing Green Travel Plan be updated in consultation with TfNSW.
- The Department considers cumulative traffic impacts are acceptable.
- These matters are discussed in further detail in **Section 6.6**.

Recommended Conditions/Response:

- Conditions are recommended requiring:
 - o a detailed CTMP that considers cumulative impacts of all construction projects being undertaken simultaneously be prepared and submitted to TfNSW for review prior to the commencement of works.
 - o the existing Green Travel Plan is updated in consultation with TfNSW prior to the commencement of use.
-

Appendix C – Statutory Considerations

In line with the requirements of section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the Department's assessment of the development has provided a detailed consideration to a number of statutory requirements. These include:

- the objects found in section 1.3 of the EP&A Act; and
- the matters listed under section 4.15(1) of the EP&A Act, including applicable environmental planning instruments and regulations.

The Department has considered all of these matters in its assessment of the development and has provided a summary of this assessment in **Tables 1** and **2** below.

Table 1 | Consideration of the objects of the EP&A Act

Objects of the EP&A Act	Summary
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources	The proposed development would have a positive impact as it would create an immersive experience for visitors and upgrade animal facilities to meet current standards. The proposed development would not impact on any natural or artificial resources, agricultural land or natural areas.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment	The principles of Ecologically Sustainable Development (ESD) are considered below.
(c) to promote the orderly and economic use and development of land	The proposed development would promote the orderly and economic use of land by improving the ongoing use of Taronga Zoo, supporting the tourism industry and creating jobs.
(d) to promote the delivery and maintenance of affordable housing	Not applicable.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats	The proposed biodiversity impacts can be managed through the management measures details in the BDAR, the planting of suitable tree replacements and the purchase of biodiversity credits (refer to Section 6.2).
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)	The proposed development would not have an adverse impact on any built or cultural heritage items, as addressed in Section 6 .
(g) to promote good design and amenity of the built environment	The proposed design is considered modest and sympathetic with the scale of the surrounding zoo facilities and has been sympathetically integrated into the zoo's topography, as discussed in Section 6.1 .

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants	Recommended conditions would ensure the proposed works would be constructed in compliance with all relevant building codes and health and safety requirements.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State	The development is SSD and therefore the Minister is the consent authority. The Department consulted with relevant government agencies on the development.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	Section 5 of this report sets out details of the Department's public exhibition of the development.

Table 2 | Consideration of the matters listed under section 4.15(1) of the EP&A Act

Section 4.15(1) Evaluation	Summary
(a)(i) any environmental planning instrument	The proposed development is permissible with consent (Section 4.2 and Section 6). The Department's consideration of other relevant EPIs is provided below.
(a)(ii) any proposed instrument	The proposed development is consistent with relevant proposed instruments.
(a)(iii) any development control plan	Under clause 11 of the SRD SEPP, development control plans (DCPs) do not apply to SSD.
(a)(iiia) any planning agreement	Not applicable.
(a)(iv) the regulations <i>Refer Division 8 of the EP&A Regulation</i>	The application satisfactorily meets the relevant requirements of the <i>Environmental Planning and Assessment Regulation 2000</i> (EP&A Regulation), including the procedures relating to applications (Part 6), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(a)(v) Repealed	Not applicable.
(b) the likely impacts of that development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	Appropriately mitigated or conditioned - refer to Section 6 of this report.
(c) the suitability of the site for the development	The site is suitable for the development as addressed in Sections 4 and 6 of this report.
(d) any submissions	Consideration has been given to the submissions received during the EIS exhibition period and following lodgement of the RTS. See Sections 5 and 6 of this report.
(e) the public interest	The development is considered to be in the public interest. Refer to Section 6 of this report.

Environmental Planning Instruments (EPIs)

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

The proposed development is SSD under section 4.36 (development declared SSD) of the EP&A Act as it is development located in the Taronga Zoo Site and has a CIV in excess of \$10 million under clause 2(h) of Schedule 2 of the SRD SEPP. Therefore, the Minister for Planning is the consent authority.

State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP (ISEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

Tourist facilities and recreational facilities with 50 or more car parking spaces with access to a classified road require referral to the TfNSW. The site is accessed via Bradleys Head Road which is classified as a regional road under the *Roads Act 1993*. No additional car parking is proposed as part of this development as the works sought are part of the relocate an existing animal exhibit of the Zoo. The proposed development however was referred to Transport for NSW for advice during the exhibition period (refer to **Section 5**).

The Department has considered TfNSW advice in **Section 6** and considers the proposed development to be consistent with the ISEPP given the consultation and consideration of traffic and parking impacts in **Section 6**. The Department also recommends TfNSW proposed conditions, including development of a CTMP and updating the existing Green Travel Plan.

State Environmental Planning Policy No. 55 - Remediation of Land

SEPP 55 aims to ensure potential contamination issues are considered in the determination of a development application. SEPP 55 requires the consent authority to consider whether the land is contaminated, and if so, whether the land is suitable for the purposes of the proposed development.

The EIS included a PSI which concluded that the site has low potential for contamination and that the site is considered suitable for the proposed development. The PSI recommended that an Asbestos and Unexpected Finds Protocol (UFP) is prepared and a further 7 sampling points be tested (9 in total within the site) as discussed in **Section 6**.

The Department considers potential contamination and hazardous materials can be managed in accordance with the recommendations detailed in the PSI including the implementation of an UFP.

The Department therefore considers remediation of the site is not required and the site is suitable for its ongoing use as a zoo. This is addressed in detail in **Section 6**.

Draft Remediation of Land State Environmental Planning Policy

The Department is reviewing all State Environmental Planning Policies to ensure they remain effective and relevant and SEPP 55 has been reviewed as part of that program. The Department recently published the draft Remediation of Land State Environmental Planning Policy (Remediation SEPP), which was exhibited until April 2018.

Once adopted, the Remediation SEPP will retain elements of SEPP 55, and add the following provisions to establish a modern approach to the management of contaminated land:

- require all remediation work that is to be carried out without development consent, to be reviewed and certified by a certified contaminated land consultant
- categorise remediation work based on the scale, risk and complexity of the work
- require environmental management plans relating to post-remediation management or ongoing management of on-site to be provided to Council.

The new SEPP will not include any strategic planning objectives or provisions. Strategic planning matters will instead be dealt with through a direction under section 117 of the EP&A Act.

The Department considers the proposed development is consistent with the draft Remediation SEPP subject to the recommended conditions.

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (SHREP 2005) provides planning principles for development within the Sydney Harbour catchment. Taronga Zoo falls within the Sydney Harbour Catchment area. The site is located within the foreshore and waterways area of SREP 2005 and is identified as a “Strategic Foreshore Site”. The relevant provisions of SREP 2005 are addressed in **Table 3** below.

Table 3 | Consideration of the matters listed under the SHREP 2005

Clause	Department's consideration
Clause 13 – Sydney Harbour Catchment	The Department is satisfied that the development would not result in any significant visual impacts as it would sit below the tree canopy and would not be visible from Sydney Harbour (refer to Section 6.1). The Department is also satisfied the stormwater can be adequately discharged through proposed stormwater system without any adverse impacts to the water quality of Sydney Harbour (refer to Section 6).
Clause 14 – Foreshores and Waterways Area	The Department is satisfied that the development would not result in any significant visual impacts as it would sit below the tree canopy, incorporates landscaping to either side of the building and a green southern façade and would not be visible from Sydney Harbour (refer to Section 6).
Clause 15 – Heritage Conservation	The site does not contain any heritage items listed under SHREP 2005. The development would not result in any adverse heritage impacts (refer to Section 6).
Clause 21 - Biodiversity, ecological and environmental protection	The proposed development would not result in any adverse biodiversity impacts. The proposed biodiversity impacts can be managed through the management measures details in the BDAR, the planting of suitable tree replacements and the purchase of biodiversity credits (refer to Section 6). The Department is also satisfied stormwater can be adequately discharged through the proposed stormwater

system without any adverse impacts to the water quality of Sydney Harbour (refer to **Section 6**).

Clause 25 - Foreshore and waterways scenic quality

The Department considers the scale and design of the proposed development to be modest and sympathetic with the scale of the surrounding zoo facilities and notes the design of the proposed development has been sympathetically integrated into the zoo's topography, where possible.

The Department is also satisfied that the development would not result in any significant visual impacts as it would sit below the tree canopy and would not be visible from Sydney Harbour (refer to **Section 6**).

Clause 29 – Consultation required for certain development applications

Development listed in Schedule 2 of the SHREP 2005 (demolition) is required to be referred to the Foreshores and Waterways Planning and Development Advisory Committee (Foreshore Committee) prior to determination.

The Department referred the application to the Foreshore Committee on 09 September 2021 and 03 November 2021 and did not receive a response from the Foreshore Committee.

Clause 41 – Requirement for Master Plans

Development consent must not be granted for development on the site, being a strategic foreshore site unless there is a master plan for the site and consideration has been made to this master plan.

The Taronga Zoo has an approved master plan "Zoo 2000 – The view to the future", which provides a basis for the continuing process of renovation, refurbishment and redevelopment of the site.

The site is located within a portion of the zoo previously identified for an exhibition space. The development is consistent with the Taronga Zoo Master Plan as it would improve the exhibit enclosures for the welfare of reptiles and amphibians. The development is also consistent with the Taronga Zoo Master Plan as it would not result in any significant adverse biodiversity, heritage or visual impacts (refer to **Section 6**)

Clause 57, 58 and 59 – Heritage

These provisions do not apply as the site is not identified as a heritage item under the Heritage Map and Schedule 4 of SHREP 2005. The Department considers that the development would not result in any adverse impact on non-Aboriginal or Aboriginal heritage items (refer to **Section 6**).

Clause 63 – Wetland Protection matters for consideration

The site is not mapped as a "wetland protection area".

Mosman Local Environmental Plan 2012

The Department considers the development is consistent with the relevant provisions of the Mosman LEP 2012. Consideration of relevant provisions of the Mosman LEP 2015 are addressed in **Table 4** below.

Table 4 | Consideration of the Mosman LEP 2012

Clause	Department's consideration	Compliance
Clause 2.3 – Zoning and land use	The site is zoned 'SP1 Special Activities' under Mosman LEP 2012 and is identified on the zoning map as "Zoological Gardens". The only uses permitted on the site with development consent is for the purpose shown on the Land Zoning Map including any development that is ordinarily incidental or ancillary to development for that purpose. The development involves the construction of a new animal exhibit and the upgrade of existing animal exhibits and facilities and therefore is permissible with consent.	Yes
Clause 4.3 – Building height	No maximum building height applies to the site.	N/A
Clause 4.4 – Floor Space Ratio	No maximum floor space ratio applies to the site.	N/A
Clause 5.10 – Heritage Conservation	The entire zoo is listed as a local heritage item in the Mosman LEP 2012 and is listed as the "Rainforest Aviary", "Elephant House", bus shelter and office, floral clock and upper and lower entrance gates'. Although the entire zoo is listed as a local heritage item, none of the items identified in the listing are located within the site. A total of 12 items listed on the Zoological Parks Board Section 170 Heritage and Conservation Register (S170 Register) are located within the site. The development would not result in any significant adverse heritage impacts and any impacts on the items listed on the S170 Register would be managed in accordance with the management measures detailed in the HIS, including archival recording, notifying items to be demolished to the Heritage Council NSW and tree protection zones.	Yes
Clause 6.4 – Scenic Protection	The site is identified as a "Scenic Protection Area". The Department considers the scale and design of the proposed development to be modest and is satisfied that the development would not result in any significant visual impacts.	Yes

Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in 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:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

The proposed development incorporates a number of design initiatives including:

- establishing environmental performance targets for energy and water conservation, and reporting and tracking of consumption
- incorporating low-impact materials, locally sourced materials, and recycled materials into the project's design to reduce overall emissions and improve the overall life cycle of the project
- implementing indoor environment quality strategies to improve occupant comfort and wellbeing
- implementing building commissioning to ensure the building is operating efficiently as intended in accordance with the established energy and water targets
- using energy efficient fixtures for heating, lighting and sewer lines in the site
- adoption of the hierarchy approach in reducing energy and water use.

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision-making process by a thorough assessment of the environmental impacts of the development.

Overall, the development is generally consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act.

Appendix D – Recommended Instrument of Consent

The recommended conditions of consent can be found on the Department of Planning and Environment's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/41686>