

AUGUST 2024

Taronga Zoo Sky Safari

Appendix L1
Visual Impact
Assessment

PREPARED BY



PREPARED FOR

TARONGA 
CONSERVATION SOCIETY AUSTRALIA

For the Wild

Visual Impact Assessment

Taronga Zoo Sky Safari

2A Bradleys Head Road, Mosman
Taronga Conservation Society



'Gura Bulga'

Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.

By using the green and blue colours to represent NSW, this painting unites the contrasting landscapes. The use of green symbolises tranquillity and health. The colour cyan, a greenish-blue, sparks feelings of calmness and reminds us of the importance of nature, while various shades of blue hues denote emotions of new beginnings and growth. The use of emerald green in this image speaks of place as a fluid moving topography of rhythmical connection, echoed by densely layered patterning and symbolic shapes which project the hypnotic vibrations of the earth, waterways and skies.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land where this document was prepared, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

Contact	Chris Bain Director – Strategic Planning	cbain@ethosurban.com (02) 9956 6962
----------------	---	--

This document has been prepared by:

Chris Bain 06/08/2024

Version No.	Date of issue	Prepared By	Approved by
1.0 (Draft)	20/07/2023	ED	CB
2.0 (Interim final)	15/07/2024	ED	CB
3.0 (Final)	23/07/2024	ED	CB
4.0 (ToA)	06/08/2024	CB	CB

Reproduction of this document or any part thereof is not permitted without written permission of Ethos Urban Pty Ltd. Ethos Urban operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed, it is a preliminary draft.



Ethos Urban Pty Ltd | ABN 13 615 087 931 | 173 Sussex Street Sydney NSW 2000 (Gadigal Land) | +61 2 9956 6962 | ethosurban.com

Contents

1.0	Introduction.....	13
1.1	Purpose	13
1.2	Scope	13
1.3	Structure.....	14
2.0	The site and its context.....	15
2.1	The site.....	15
2.2	Site context	17
3.0	The proposal	19
4.0	Planning history.....	22
5.0	The statutory planning framework	23
6.0	Methodology.....	26
7.0	The key issues	27
8.0	Visual Catchment.....	28
8.1	Boundaries.....	28
8.2	Sensitivity of the visual catchment to the nature of change proposed.....	28
8.3	Pattern of viewing	30
8.4	Key viewpoints.....	30
9.0	Visual impact assessment.....	37
9.1	Viewpoint 1 – Main Entrance	37
9.2	Viewpoint 2 – Upper floor of Main Entrance	40
9.3	Viewpoint 3 – Giraffe Enclosure.....	42
9.4	Viewpoint 4 – Forest Adventure/area under construction	46
9.5	Viewpoint 5 – Taronga Function Centre: Top Floor Balcony	49
9.6	Viewpoint 6 – Taronga Function Centre: Top floor northern bar deck.....	53
9.7	Viewpoint 7 – Habitat and Wildlife Retreat: N’Gurra Lounge Balcony.....	57
9.8	Viewpoint 8 – Elephant Temple	61
9.9	Viewpoint 9 – Concert Lawn.....	64
9.10	Viewpoint 10 – Seal Pools from Rustic Bridge.....	67
9.11	Viewpoint 11 – Rustic Bridge	70
9.12	Viewpoint 12 – Southern side of Athol Wharf Road opposite Lower Entrance.....	73
9.13	Viewpoint 13 – Southern side of Athol Wharf Road looking north/north east.....	76
9.14	Viewpoint 14 – Lower Station near Taronga Zoo Terminal	79

9.15	Viewpoint 15 – Harbour View Lawn	83
9.16	Viewpoint 16 – Free Flight Bird Amphitheatre	86
9.17	Viewpoint 17 – Little Sirius Point.....	89
9.18	Viewpoint 18 – Curraghbeena Point Lookout Reserve	93
9.19	Viewpoint 19 – Taronga Zoo Ferry (Close Range)	97
9.20	Viewpoint 20 – Taronga Zoo Ferry (Medium Range).....	101
9.21	Viewpoint 21 – Cremorne Reserve.....	105
9.22	Viewpoint 22 – Ashton Park/Athol Bay Lookout	109
9.23	Viewpoint 23 – Bradleys Head Wharf.....	113
9.24	Viewpoint 24 – Whiting Beach Road	117
9.25	Viewpoint 25 – Prince Albert Street	120
9.26	Viewpoint 26 – Bradleys Head Road.....	123
9.27	Viewpoint 27 – Sydney Opera House Northern Boardwalk	126
9.28	Viewpoint 28 – Yarranabbe Park, Darling Point.....	130
9.29	Summary of visual impact	134
9.30	Night-time views and lighting impact.....	136
10.0	Assessment against the statutory planning framework	153
11.0	Discussion of key issues.....	165
11.1	Integration with the landscape when seen from outside the zoo	165
11.2	Integration with the landscape when seen from inside the zoo.....	165
11.3	Interruption or blocking of high value views from the zoo.....	166
11.4	Impact on private property in Mosman	166
12.0	Mitigation measures	167
13.0	Conclusion.....	167

Appendices

Appendix A Visual evidence base (Virtual Ideas and CMS Surveyors)	170
---	-----

Figures

Figure 1	Site map	16
Figure 2	Concert Lawn	16
Figure 3	The former Sky Safari	17
Figure 4	Athol Bay	18
Figure 5	Bradleys Head	18
Figure 6	Proposed site plan	20
Figure 7	Habitat & Wildlife Retreat	22
Figure 8	State Environmental Planning Policy (Biodiversity and Conservation) 2021 zoning of adjacent parts of Sydney Harbour	24
Figure 9	Sydney Harbour Foreshores and Waterways Area Development Control Plan ecological communities and landscape character types (Map 10)	25
Figure 10	Views from inside the Zoo	31
Figure 11	Views from outside the Zoo – close to medium range	32
Figure 12	Views from outside the Zoo – long range	33
Figure 13	Viewpoint 1: Main Entrance (existing view)	37
Figure 14	Viewpoint 1: Main Entrance (proposed view)	39
Figure 15	Viewpoint 2: Upper floor of Main Entrance (existing view)	40
Figure 16	Viewpoint 2: Upper floor of Main Entrance (proposed view)	42
Figure 17	Viewpoint 3: Giraffe Enclosure (existing view)	43
Figure 18	Viewpoint 3: Giraffe Enclosure (proposed view)	45
Figure 19	Viewpoint 4: Forest Adventure/area under construction (existing view)	46
Figure 20	Viewpoint 4: Forest Adventure/area under construction (proposed view)	48
Figure 21	Viewpoint 5: Taronga Function Centre: Top Floor Balcony (existing view)	49
Figure 22	Viewpoint 5: Taronga Function Centre: Top Floor Balcony (proposed view)	51
Figure 23	Viewpoint 6: Taronga Function Centre: Top floor northern bar deck (existing view)	53
Figure 24	Viewpoint 6: Taronga Function Centre: Top floor northern bar deck (proposed view)	55
Figure 25	Viewpoint 7: Habitat and Wildlife Retreat: N'Gurra Lounge Balcony (existing view)	57
Figure 26	Viewpoint 7: Habitat and Wildlife Retreat: N'Gurra Lounge Balcony (proposed view)	59
Figure 27	Viewpoint 8: Elephant Temple (existing view)	61
Figure 28	Viewpoint 8: Elephant Temple (proposed view)	63
Figure 29	Viewpoint 9: Concert Lawn (existing view)	64
Figure 30	Viewpoint 9: Concert Lawn (proposed view)	66
Figure 31	Viewpoint 10: Seal Pools from Rustic Bridge (existing view)	67
Figure 32	Viewpoint 10: Seal Pools from Rustic Bridge (proposed view)	69
Figure 33	Viewpoint 11: Rustic Bridge (existing view)	70
Figure 34	Viewpoint 11: Rustic Bridge (proposed view)	72
Figure 35	Viewpoint 12: Southern side of Athol Wharf Road opposite Lower Entrance (existing view)	73
Figure 36	Viewpoint 12: Southern side of Athol Wharf Road opposite Lower Entrance (proposed view)	75
Figure 37	Viewpoint 13: Southern side of Athol Wharf Road looking north/north east (existing view)	76
Figure 38	Viewpoint 13: Southern side of Athol Wharf Road looking north/north east (proposed view)	78
Figure 39	Viewpoint 14: Lower Station near Taronga Zoo Terminal (existing view)	79
Figure 40	Viewpoint 14: Lower Station near Taronga Zoo Terminal (proposed view)	81
Figure 41	Viewpoint 15: Harbour View Lawn (existing view)	83
Figure 42	Viewpoint 15: Harbour View Lawn (proposed view)	85
Figure 43	Viewpoint 16: Free Flight Bird Amphitheatre (existing view)	86
Figure 44	Viewpoint 16: Free Flight Bird Amphitheatre (proposed view)	88
Figure 45	Viewpoint 17: Little Sirius Point (existing view)	89
Figure 46	Viewpoint 17: Little Sirius Point (proposed view)	91
Figure 47	Viewpoint 18: Curraghbeena Point Lookout Reserve (existing view)	93
Figure 48	Viewpoint 18: Curraghbeena Point Lookout Reserve (proposed view)	95
Figure 49	Viewpoint 19: Taronga Zoo Ferry- Close Range (existing view)	97
Figure 50	Viewpoint 19: Taronga Zoo Ferry- Close Range (proposed view)	99
Figure 51	Viewpoint 20 Taronga Zoo Ferry- Medium Range (existing view)	101
Figure 52	Viewpoint 20 Taronga Zoo Ferry- Medium Range (proposed view)	103
Figure 53	Viewpoint 21: Cremorne Reserve (existing view)	105
Figure 54	Viewpoint 21: Cremorne Reserve (proposed view)	107
Figure 55	Viewpoint 22: Ashton Park/Athol Bay Lookout (existing view)	109
Figure 56	Viewpoint 22: Ashton Park/Athol Bay Lookout (proposed view)	111

Figure 57	Viewpoint 23: Bradleys Head Wharf (existing view)	113
Figure 58	Viewpoint 23: Bradleys Head Wharf (proposed view)	115
Figure 59	Viewpoint 24: Whiting Beach Road (existing view)	117
Figure 60	Viewpoint 24: Whiting Beach Road (proposed view)	119
Figure 61	Viewpoint 25: Prince Albert Street (existing view)	120
Figure 62	Viewpoint 25: Prince Albert Street (proposed view)	122
Figure 63	Viewpoint 26: Bradleys Head Road (existing view)	123
Figure 64	Viewpoint 26: Bradleys Head Road (proposed view)	125
Figure 65	Viewpoint 27: Sydney Opera House Northern Boardwalk (existing view)	126
Figure 66	Viewpoint 27: Sydney Opera House Northern Boardwalk (proposed view)	128
Figure 67	Viewpoint 28: Yarranabbe Park, Darling Point (existing view)	130
Figure 68	Viewpoint 28: Yarranabbe Park, Darling Point (proposed view)	132
Figure 69	Viewpoint 17: Existing night-time view	137
Figure 70	Viewpoint 17: Proposed night-time view	138
Figure 71	Viewpoint 18: Existing night-time view	139
Figure 72	Viewpoint 18: Proposed night-time view	140
Figure 73	Viewpoint 19: Existing night-time view	141
Figure 74	Viewpoint 19: Proposed night-time view	142
Figure 75	Viewpoint 21: Existing night-time view	143
Figure 76	Viewpoint 21: Proposed night-time view	144
Figure 77	Viewpoint 22: Existing night-time view	145
Figure 78	Viewpoint 22: Proposed night-time view	146
Figure 79	Viewpoint 23: Existing night-time view	147
Figure 80	Viewpoint 23: Proposed night-time view	148
Figure 81	Viewpoint 27: Existing night-time view	149
Figure 82	Viewpoint 27: Proposed night-time view	150
Figure 83	Viewpoint 28: Existing night-time view	151
Figure 84	Viewpoint 28: Proposed night-time view	152

Tables

Table 1	SEARS relevant to visual impact	13
Table 2	Proposal specifications	21
Table 3	Factors considered in visual impact	26
Table 4	Viewpoints	34
Table 5	Viewpoint 1 details	38
Table 6	Viewpoint 1 – Main Entrance: sensitivity of the nature of change proposed	38
Table 9	Viewpoint 2 details	41
Table 10	Viewpoint 2 – Upper floor of Main Entrance: sensitivity of the nature of change proposed	41
Table 13	Viewpoint 3 details	44
Table 14	Viewpoint 3 – Giraffe Enclosure: sensitivity of the nature of change proposed	44
Table 15	Viewpoint 4 details	47
Table 16	Viewpoint 4 – Forest Adventure/area under construction: sensitivity of the nature of change proposed	47
Table 19	Viewpoint 5 details	50
Table 20	Viewpoint 5 – Taronga Function Centre: Top Floor Balcony: sensitivity of the nature of change proposed	50
Table 21	Viewpoint 5: Taronga Function Centre: Top Floor Balcony: magnitude of the nature of change proposed	52
Table 22	Viewpoint 5 – Taronga Function Centre: Top Floor Balcony: significance of visual impact	52
Table 23	Viewpoint 6 details	54
Table 24	Viewpoint 6 – Main Entrance: sensitivity of the nature of change proposed	54
Table 25	Viewpoint 6: Taronga Function Centre: Top floor northern bar deck: magnitude of the nature of change proposed	56
Table 26	Viewpoint 6: Taronga Function Centre: Top floor northern bar deck: significance of visual impact	56
Table 27	Viewpoint 7 details	58
Table 28	Viewpoint 7 – Habitat and Wildlife Retreat: N'Gurra Lounge Balcony: sensitivity of the nature of change proposed	58
Table 29	Viewpoint 7: Habitat and Wildlife Retreat – N'Gurra Lounge Balcony: magnitude of the nature of change proposed	60
Table 30	Viewpoint 7: Habitat and Wildlife Retreat – N'Gurra Lounge Balcony: significance of visual impact	60

Table 31	Viewpoint 8 details.....	62
Table 32:	Viewpoint 8 – Elephant Temple: sensitivity of the nature of change proposed.....	62
Table 33	Viewpoint 9 details.....	65
Table 34	Viewpoint 9 – Concert Lawn: sensitivity of the nature of change proposed.....	65
Table 35	Viewpoint 10 details.....	68
Table 36	Viewpoint 10 – Seal Pools from Rustic Bridge: sensitivity of the nature of change proposed.....	68
Table 37	Viewpoint 11 details.....	71
Table 38	Viewpoint 11 – Rustic Bridge: sensitivity of the nature of change proposed.....	71
Table 39	Viewpoint 12 details.....	74
Table 40	Viewpoint 12 – Southern side of Athol Wharf Road opposite Lower Entrance: sensitivity of the nature of change proposed.....	74
Table 41	Viewpoint 13 details.....	77
Table 42	Viewpoint 13 – Southern side of Athol Wharf Road looking north/north-east: sensitivity of the nature of change proposed.....	77
Table 43	Viewpoint 14 details.....	80
Table 44	Viewpoint 14 – Lower Station near Taronga Zoo Terminal: sensitivity of the nature of change proposed.....	80
Table 45	Viewpoint 14: Lower Station near Taronga Zoo Terminal: magnitude of the nature of change proposed.....	82
Table 46	Viewpoint 9: Lower Station near Taronga Zoo Terminal: significance of visual impact.....	82
Table 47	Viewpoint 15 details.....	84
Table 48	Viewpoint 15 – Harbour View Lawn: sensitivity of the nature of change proposed.....	84
Table 49	Viewpoint 16 details.....	87
Table 50	Viewpoint 16 – Free Flight Bird Amphitheatre: sensitivity of the nature of change proposed.....	87
Table 51	Viewpoint 17 details.....	90
Table 52	Viewpoint 17 – Little Sirius Point: sensitivity of the nature of change proposed.....	90
Table 53	Viewpoint 17: Little Sirius Point: magnitude of the nature of change proposed.....	92
Table 54	Viewpoint 17: Little Sirius Point: significance of visual impact.....	92
Table 55	Viewpoint 18 details.....	94
Table 56	Viewpoint 18 – Little Sirius Point: sensitivity of the nature of change proposed.....	94
Table 57	Viewpoint 18: Curraghbeena Point Lookout Reserve: magnitude of the nature of change proposed.....	96
Table 58	Viewpoint 18: Curraghbeena Point Lookout: significance of visual impact.....	96
Table 59	Viewpoint 19 details.....	98
Table 60	Viewpoint 19 – Taronga Zoo Ferry (Close Range): sensitivity of the nature of change proposed.....	98
Table 61	Viewpoint 19: Taronga Zoo Ferry – Close Range: magnitude of the nature of change proposed.....	100
Table 62	Viewpoint 19: Taronga Zoo Ferry – Close Range: significance of visual impact.....	100
Table 63	Viewpoint 20 details.....	102
Table 64	Viewpoint 20 – Taronga Zoo Ferry – Medium Range: sensitivity of the nature of change proposed.....	102
Table 65	Viewpoint 20: Taronga Zoo Ferry – Medium Range: magnitude of the nature of change proposed.....	104
Table 66	Viewpoint 20: Taronga Zoo Ferry – Medium Range: significance of visual impact.....	104
Table 67	Viewpoint 21 details.....	106
Table 68	Viewpoint 21 – Cremorne Reserve: sensitivity of the nature of change proposed.....	106
Table 69	Viewpoint 21: Cremorne Reserve: magnitude of the nature of change proposed.....	108
Table 70	Viewpoint 21: Cremorne Reserve: significance of visual impact.....	108
Table 71	Viewpoint 22 details.....	110
Table 72	Viewpoint 22 – Ashton Park/Athol Bay Lookout: sensitivity of the nature of change proposed.....	110
Table 73	Viewpoint 22: Ashton Park/Athol Bay Lookout: magnitude of the nature of change proposed.....	112
Table 74	Viewpoint 22: Ashton Park/Athol Bay Lookout: significance of visual impact.....	112
Table 75	Viewpoint 23 details.....	114
Table 76	Viewpoint 23 – Bradleys Head Wharf: sensitivity of the nature of change proposed.....	114
Table 77	Viewpoint 23: Bradleys Head Wharf: magnitude of the nature of change proposed.....	116
Table 78	Viewpoint 23: Bradleys Head Wharf: significance of visual impact.....	116
Table 79	Viewpoint 24 details.....	118
Table 80	Viewpoint 24 – Whiting Beach Road: sensitivity of the nature of change proposed.....	118
Table 81	Viewpoint 25 details.....	121
Table 82	Viewpoint 25– Prince Albert Street: sensitivity of the nature of change proposed.....	121
Table 83	Viewpoint 26 details.....	124
Table 84	Viewpoint 26– Bradleys Head Road: sensitivity of the nature of change proposed.....	124
Table 85	Viewpoint 27 details.....	127
Table 86	Viewpoint 27 – Sydney Opera House Northern Boardwalk: sensitivity of the nature of change proposed.....	127
Table 87	Viewpoint 27: Sydney Opera House Northern Boardwalk: magnitude of the nature of change proposed.....	129
Table 88	Viewpoint 27: Sydney Opera House Northern Boardwalk: significance of visual impact.....	129

Table 89	Viewpoint 28 details	131
Table 90	Viewpoint 28 – Yarranabee Park, Darling Park: sensitivity of the nature of change proposed.....	131
Table 91	Viewpoint 28: Yarranabee Park, Darling Point: magnitude of the nature of change proposed	133
Table 92	Viewpoint 28: Yarranabee Park, Darling Point: significance of visual impact.....	133
Table 93	Summary of visual impact.....	134
Table 94	Assessment against State Environmental Planning Policy (Biodiversity and Conservation) 2021.....	153
Table 95	Assessment against Mosman Local Environmental Plan 2012.....	153
Table 96	Assessment against Sydney Harbour Foreshores and Waterways Area Development Control Plan	155
Table 97	Assessment against Taronga Zoo Masterplan: Urban Design Principles And Visual Analysis.....	163

Executive Summary

This Visual Impact Assessment (VIA) has been prepared by Ethos Urban in collaboration with Virtual Ideas and CMS Surveyors to accompany a detailed State Significant Development Application (SSDA) (SSD- 46807958) for redevelopment of the Sky Safari at Taronga Zoo (the proposal). The site is legally described as Lot 22 on Deposited Plan 843294 and is Crown Land managed by the Taronga Conservation Society Australia (TCSA).

This VIA considers and responds to the visual impact requirements outlined in the NSW Department of Planning, Housing and Infrastructure (DPHI) issued Secretary's Environmental Assessment Requirements (SEARs) dated 11 August 2022.

The methodology used by this VIA is derived from the international standard 'Guidelines for Landscape and Visual Impact Assessment' version 3 (GLVIA3) and the NSW Land and Environment Court (LEC) planning principle for 'impact on public domain views' established in *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor* [2013] NSWLEC 1046 (Rose Bay). Under this methodology acceptability of the proposal's likely visual impact is determined through assessment of the following matters:

- Sensitivity of the view to the nature of change proposed
- Magnitude of the nature of change proposed
- Significance of visual impact based on sensitivity and magnitude; and
- Relevant matters of the statutory planning framework.

This VIA considers the likely visual impact of the proposal on the public domain based on the assessment of the following key visual impact issues:

1. Integration with the landscape when seen from outside the zoo
2. Integration with the landscape when seen from inside the zoo
3. Interruption or blocking of high value views from the zoo
4. Impact on private property in Mosman.

This VIA has assessed the visual impact of the proposal from the following locations in the public domain:

- Views from within the Zoo
- Views from outside the Zoo – close and medium range
- Views from outside the Zoo – replicating the experience of visitors travelling by Ferry as they arrive to Taronga Zoo Wharf
- Views from outside the zoo – long range
- Surrounding residential streets.

This VIA also provides a high-level qualitative assessment of lighting impact on the visual catchment. The key findings of this VIA are as follows:

- In general, due to factors such as social and cultural value, the sensitivity of viewpoints to the nature of change being proposed of high
- The magnitude of the nature of change being proposed ranges from imperceptible to considerable, with the highest magnitude arising from the new Lower Station and height of the new pylon elements (P2-P5).
- In terms of significance of visual impact:
 - The proposal will have a negligible visual impact on 15 viewpoints
 - The proposal will have a low visual impact on 4 viewpoints
 - The proposal will have a moderate visual impact on 9 viewpoints
 - The proposal will have a high visual impact on 0 viewpoints.
- The proposal will not have a major visual impact on any viewpoint

- Views from within the Zoo
 - The proposal does not block or unacceptably alter the nature of existing key views from within the zoo. In particular, it is not visible from the iconic Giraffe Enclosure viewpoint, the historically sensitive Elephant House viewpoint or the highly used Concert Lawn viewpoint
- Views from outside the Zoo – close and medium range
 - Parts of the proposal, in particular pylons (P2-P5) and the Lower Station, will be visible from views from outside the zoo in the close and medium range. Due to its location on a north-south aligned ridge, this will be particularly the case when seen from locations to the west such as Little Sirius Point, Ashton Park / Athos Bay Lookout and from the Taronga Zoo Ferry travelling to the Taronga Zoo Wharf. While visible, it is not considered to be visually dominant from these locations, in particular due to the slender form of the pylons and the relatively modest scale of the Lower Station when seen in its landscape context
- Views from outside the zoo – long range
 - While parts of the proposal will be visible in views from outside the zoo in the long range, due to it mainly being seen against a background of the zoo landscape it will not be visually prominent. In addition, it will be seen in the context of other, larger built elements such as the Taronga Function Centre, which will further reduce its apparent visual scale
- Surrounding residential streets
 - The proposal is not visible from surrounding residential streets in Mosman
- Night-time views
 - All reasonable steps have been taken to ensure the proposed artificial lighting avoids disturbance to neighbouring properties and does not detract from the visual amenity of the natural landscape
 - The likely impact of the proposal's operation and construction phase lighting is considered to be reasonable.

The proposal is considered to have an acceptable visual impact for these together with the following reasons:

- Having been present on the site in a similar nature to that now proposed for the past 35 years, the Sky Safari is a well-established and valued part of the zoo landscape. Given this and the typical useable lifespan of such structures, it is reasonable to expect continuation of a Sky Safari within the site
- While having a highly landscaped setting, the zoo itself is also inherently an urban zoo. This is evidenced by a number of buildings and structures being visible from locations outside the zoo, in particular the Function Centre, Wildlife Retreat and ferry terminal. It is also often seen, in particular from locations on the southern Sydney Harbour foreshore such as the Opera House, within the context of the more developed lower North Shore west of Little Sirius Cove
- The proposal has been subject to a comprehensive and detailed design process, including multiple State Design Review Panel sessions, with considerable reductions being made to its original scope to reduce visual impact
- Remaining incursion of pylons (P2-P5) above the prevailing tree canopy line are necessary for structural safety and operational reasons, and as such are unavoidable in service of the proposal's current intent
- The proposed scale, massing, form and architectural detailing of the Lower Station will further reduce visibility of the proposal, in particular when seen from more distant locations
- Where visible, it is reasonable to assume that over time supplementary planting and ongoing maturation of existing vegetation will mitigate the prominence of vertical elements in views from outside the Zoo overtime.

Glossary

Abbreviations

Abbreviation	Definition
Council	Mosman Council
DPHI	Department of Planning, Housing and Infrastructure
EP&A Act	Environmental Planning and Assessment Act 1979
LEC	Land and Environment Court of NSW
LGA	Local Government Area
MLEP 2012	Mosman Local Environmental Plan 2012
SEARs	Planning Secretary's Environmental Assessment Requirements
SSDA	State significant development application
TCSA	Taronga Conservation Society Australia
The zoo	Taronga Zoo
VIA	Visual impact assessment

Key terms

Abbreviation	Definition
Characteristics	means elements, or combinations of elements, which make a contribution to distinctive landscape character
Element	means individual parts which make up the landscape, such as, for example, trees, hedges and buildings
Feature	means particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines or a particular aspect of the project proposal
Foreshore (backdrop)	means the section of land extending from the property boundary most distant from the waterway of the first line of properties to the ridge line or hill top as viewed from the waterway
Foreshore (immediate)	means the section of land extending from low water mark to the property boundary most distant from the waterway of the first line of properties as viewed from the waterway
Landscape	means an area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors
Landscape character	means a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse
Landscape character area	means a single unique area which is the discrete geographical areas of a particular landscape type

Abbreviation	Definition
Landscape character type	means distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes
Magnitude	means a term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration
Sensitivity	means a term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor
Significant	means at least a considerable magnitude of change occurring to an at least high sensitivity view
Townscape	means the character and composition of the built environment including the buildings and the relationships between them, the different types of urban open space, including green spaces, and the relationship between buildings and open spaces
Unacceptable	means an outcome that satisfies all three of the following conditions: <ul style="list-style-type: none"> • inconsistent with the intent of a planning provision, considering aims, objective or similar qualitative statement of a desired outcome • where there is insufficient environmental planning ground to justify that inconsistency, having regard to relevant matters such as the public interest, environmental outcomes, social outcomes and economic outcomes • where reasonable and relevant conditions of consent are unlikely to satisfactorily mitigate this impact
Visual amenity	means the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area
Visual impact	means impact on specific views and on the general visual amenity experienced by people
Visual receptors	means individuals and/or defined groups of people who have the potential to be affected by a proposal

1.0 Introduction

1.1 Purpose

The purpose of this visual impact assessment (VIA) is to provide an assessment of the visual impact of a proposal by the Taronga Conservation Society (the applicant) to redevelop the Sky Safari at Taronga Zoo (the proposal). The site is legally described as Lot 22 on Deposited Plan 843294 and is Crown Land managed by the Taronga Conservation Society Australia (TCSA).

The TCSA is a statutory body representing the Crown. The Minister for Planning and Public Spaces, or their delegate, is the consent authority for the SSDA and this application is lodged with the NSW Department of Planning, Housing and Infrastructure (DPHI) for assessment as the works are located within the Taronga Zoo site and have an estimated development cost that exceeds the \$10 million threshold pursuant to Clause 2(h) of Schedule 2 of the *State Environmental Planning Policy (Planning Systems) 2021*.

This VIA considers the likely visual impact of the proposed Sky Safari on the public domain based on the assessment of proposal against four key visual impact issues:

1. Integration with the landscape when seen from outside the zoo
2. Integration with the landscape when seen from inside the zoo
3. Interruption or blocking of high value views from the zoo
4. Impact on private property in Mosman

This report has been prepared by Ethos Urban in collaboration with Virtual Ideas and CMS Surveyors (the consultant team) on behalf of the TCSA.

1.2 Scope

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 11 August 2022 and issued for the SSD- 46807958. Specifically, this report has been prepared to respond to the SEARs requirement in **Table 1** below.

Table 1 SEARS relevant to visual impact

Issue	Assessment requirements	Documentation
1: Statutory context	<ul style="list-style-type: none">• Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines• Identify compliance with applicable development standards and provide a detailed justification for any non-compliances	<ul style="list-style-type: none">• EIS
5: Environmental amenity	<ul style="list-style-type: none">• Assess amenity impacts on the surrounding locality, including...visual amenity, view loss and view sharing...• A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated	<ul style="list-style-type: none">• View analysis

Issue	Assessment requirements	Documentation
6: Visual impact	<ul style="list-style-type: none"> • Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development • Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment 	<ul style="list-style-type: none"> • Visual analysis • Visual impact assessment

1.3 Structure

The VIA has the following structure:

- **Section 1 – Introduction:** identifies the purpose, scope and structure of this VIA
- **Section 2 – The site and its context:** provides an overview of the site and its context
- **Section 3 – The proposal:** describes the proposal
- **Section 4 – Planning history:** provides an overview of the site planning history
- **Section 5 – The statutory planning framework:** identifies the parts of the statutory planning framework against which visual impact is to be assessed
- **Section 6 – Methodology:** outlines the methodology used by this VIA
- **Section 7 – The key issues:** outlines the key substantive issues for consideration by this VIA
- **Section 8 – Visual catchment:** identifies and describes the visual catchment, including visual receptors, and identifies viewpoints for which visual impact assessment will be undertaken
- **Section 9 – Visual impact assessment:** identifies the key visual impacts of the proposal (including consideration of visual amenity, view loss and view sharing) and undertakes an assessment of visual impact against the factors of sensitivity to the nature of change proposed and the magnitude of the change to identify significant visual impacts
- **Section 10 – Assessment against the statutory planning framework:** assesses visual impact against the statutory planning framework
- **Section 11 – Discussion of key issues:** discusses the proposal performance against and consideration of key issues
- **Section 12 – Mitigation measures:** recommends mitigation measures to address visual impact
- **Section 13 – Conclusion:** identifies whether the proposal can be supported on overall visual impact grounds
- **Appendices** - comprising the visual evidence upon which assessment is based.

2.0 The site and its context

Refer to the separate EIS prepared by Urbis for further detail on the proposal

2.1 The site

Taronga Zoo

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

Taronga Zoo comprises a large number and variety of animal exhibits, as well associated buildings, structures and pathways (refer **Figure 2**). Taronga Zoo has evolved over time from a Zoo that simply provides the traditional visitor experience of viewing animals in exhibits, to a Zoo that focusses on wildlife conservation, animal welfare and providing a range of visitor learning experiences. Taronga Zoo is one of Australia's most popular attractions, and together with Taronga Western Plains Zoo hosts more than 1.8 million visitors annually.

Former Sky Safari

The existing Sky Safari was an ageing asset within the Zoo and was retired on 31 January 2023. The former Sky Safari route is a lineal route of 450 metres with each one-way journey taking approximately 4 minutes (refer **Figure 3**). The retired Sky Safari utilised 9 pylons.

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

The former Sky Safari cable cars had a maximum capacity of six guests and could accommodate wheelchairs up to a width of 610mm but prams or wheelchairs which did not fold could not be transported given the size restraints.



Figure 1 **Site map**

Source: Nearmap and Ethos Urban



Figure 2 **Concert Lawn**

Source: Taronga Conservation Society



Figure 3 The former Sky Safari

Source: Taronga Conservation Society

2.2 Site context

The site is surrounded as follows:

- **North:** Little Ashton Park and established, low density residential housing primarily comprising single and double storey detached houses surrounded by private landscaped gardens.
- **East:** Ashton Park, which forms part of Sydney Harbour National Park and is densely vegetated.
- **South:** Ashton Park and Sydney Harbour, including Taronga Zoo Wharf, Athol Bay (refer **Figure 4**) Whiting Beach and Bradleys Head (refer **Figure 5**).
- **West:** Ashton Park and Little Sirius Cove.



Figure 4 **Athol Bay**

Source: Mark D



Figure 5 **Bradleys Head**

Source: NSW National Parks and Wildlife Service

3.0 The proposal

Refer to the separate EIS prepared by Urbis for further detail on the proposal

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

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

The proposed development includes:

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

Overall, the revitalised Sky Safari will:

- Feature additional, larger cable cars that are more accessible, dramatically improving the guest experience journey for all visitors.
- Connect to recent upgrades underway to the Taronga Zoo Wharf under the NSW Government's Transport Access Program.
- Increase the Sky Safari's former capacity, allowing for a more seamless flow of guests around the Zoo, while also enhancing opportunities for educating guests on Taronga's conservation efforts.
- Encourage guests off the roads and onto public transport as they explore the harbour on route to the Zoo.
- Provide unique, affordable, family-focused sightseeing tourism infrastructure that provides comfortable all-season experiences to support year-round growth in visitation to the Zoo. This will assist in securing the financial future of the Zoo to ensure that it can continue to undertake a range of conservation and education projects.
- Consider the heritage significance of local heritage items within the Zoo grounds and the strong historical presence of Taronga.
- Enhance opportunities for educating the community on TCSA's conservation efforts

The proposal is shown in **Figure 6** and **Table 2**.

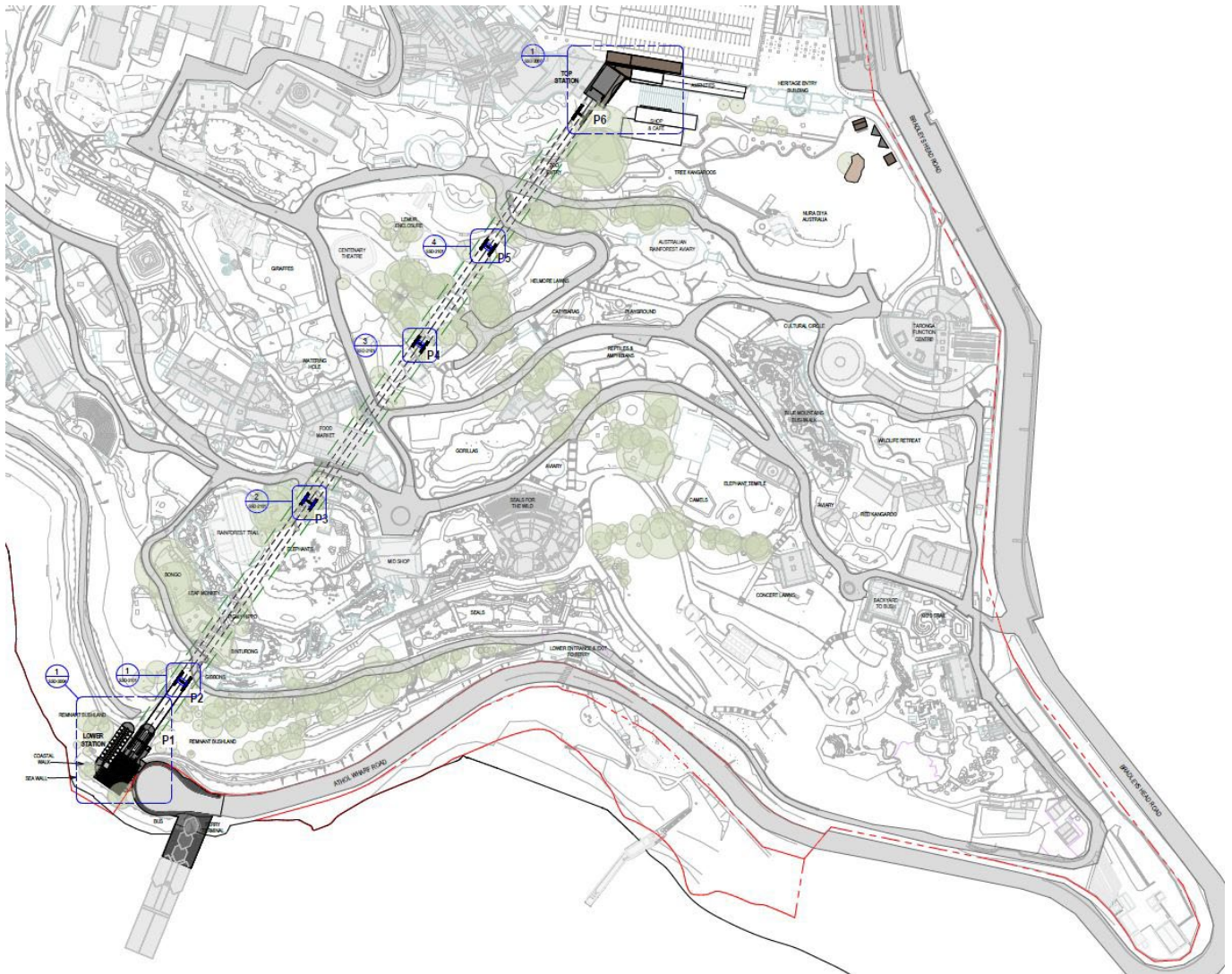


Figure 6 Proposed site plan

Source: Kay Elliot

Table 2 Proposal specifications

Element	Detail
Length of cableway	916m (approx.)
Width of cableway corridor	12.5m
Number of cable cars	20-25 new cable cars
Maximum persons per cable car	6 – 10
Cable car stations	<ul style="list-style-type: none"> • Top Station – will replace the existing storage facility adjacent to the Main Entrance Plaza. The new station will provide Zoo guests with direct access to the Sky Safari via the existing Main Entrance plaza. • Lower Station - replace the existing lower station near the Taronga Ferry Wharf.
Number and location of pylons	<p>There are 6 pylons, one located at each station (Top and Lower) and 4 within zoo. There are no pylons outside of the Zoo grounds.</p> <ul style="list-style-type: none"> • Pylon 1 (4.3m)– located in close proximity to the existing and proposed Lower station; • Pylon 2 (9.7m) – located by existing Pylon 2; • Pylon 3 (26.2m) – located by the Food Court; • Pylon 4 (35.7m) – in front of the Savannah toilet facilities; • Pylon 5 (36.5m) – located to the north of the Helmore lawns; and • Pylon 6 (6.5m)– located in close proximity to the existing and proposed Top station.
Trip time and speed	15-20min within peak period and 30 min within non-peak period
Hourly guests	1,500 (approx.) (peak periods)
Days of operation	365
Operating hours	<p>The Zoo is currently in operation 24/7. It is intended that the Sky Safari will continue to operate within the following indicative hours to activate the site and create a new immersive experience to educate visitors on the work of the TSCA.</p> <p>These hours fluctuate from time to time:</p> <ul style="list-style-type: none"> • Indicative Sunrise & Early Morning Sessions <ul style="list-style-type: none"> - Daylight savings (AEDT): 6:00am to 9:30am - Non-daylight savings (AEST): 5:00am to 9:30am • Zoo Operating Period <ul style="list-style-type: none"> - 9:30am to 5:00pm (September to April) - 9:30am to 4:30pm (May to August) • Indicative Sunset & Twilight Sessions <ul style="list-style-type: none"> - Daylight savings (AEDT): 5:00pm to 9:00pm - Non-daylight savings (AEST): 5:00pm to 7:00pm • Indicative Special Events (ie. Vivid): 5:00pm to 12:00am

In accordance with section 4.36 of the Environmental Planning and Assessment Act 1979 (EP&A Act), the proposal is classified as State significant development.

4.0 Planning history

First opened in 1916, the site has a lengthy planning history. Key recent development consents include:

- Upper Australia Precinct granted on 21 December 2020
- Habitat & Wildlife Retreat granted on 21 April 2017 (refer **Figure 7**)
- Reptile and Amphibian Conservation Centre granted on 22 February 2022
- Taronga Wildlife Hospital and Nutrition Centre – subject to approval: formal public exhibition of the SSD Application occurred November-December 2022



Figure 7 **Habitat & Wildlife Retreat**

Source: Taronga Conservation Society

5.0 The statutory planning framework

This section addresses SEAR 1: Statutory context: 'Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines'

The following documents comprise the statutory planning framework against which the visual impact of the proposal is to be assessed.

Legislation

- Environmental Planning and Assessment Act 1979 (EP&A Act)

Environmental planning instruments

- State Environmental Planning Policy (Biodiversity and Conservation) 2021 (the Biodiversity and Conservation SEPP), in particular Chapter 6 'Water catchments'
- Mosman Local Environmental Plan 2012, in particular:
 - Section 1.2 'Aims of plan'
 - Section 2.3 'Zone objectives and land use table'
 - Section 6.4 'Scenic protection'.

Other documents

It is noted that development control plans do not apply to SSDA. Nonetheless, consistent with best practice, the Sydney Harbour Foreshores and Waterways Area Development Control Plan (the Sydney Harbour DCP) has been considered in this VIA. In accordance with section 6.50 'Consideration of master plan', consideration has also been given to the zoo's approved master plan, being 'Zoo 2000 – The view to the future' and its supporting 'Taronga Zoo Master Plan Implementation Strategy, Urban Design Landscape Heritage and Interpretation Guidelines' (Government Architect's Office, 2004) and 'Taronga Zoo Masterplan: Urban Design Principles And Visual Analysis' (Urban Design Advisory Service, 2001).

Where relevant to assist in VIA, the following documents have also been considered:

- 'Centenary Plan 2013', Taronga Conservation Society, 2013
- 'Taronga Zoo Conservation Strategy', Godden Mackay Logan, 2002
- 'Taronga Zoo Landscape Management Plan', Design 5 - Architects Pty Ltd, Geoffrey Britton & Dr Ben Wallace, 2006

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Under the Biodiversity and Conservation SEPP, the site is mapped as having the following attributes relevant to visual impact:

- Sydney Harbour Catchment
- Foreshore and Waterways Area
- Strategic Foreshore Site (Taronga Zoological Gardens)

The adjoining waters of Sydney Harbour, being Athol Bay and Little Sirius Cover, are included in Zone W2 Environmental Protection (refer **Figure 8**).

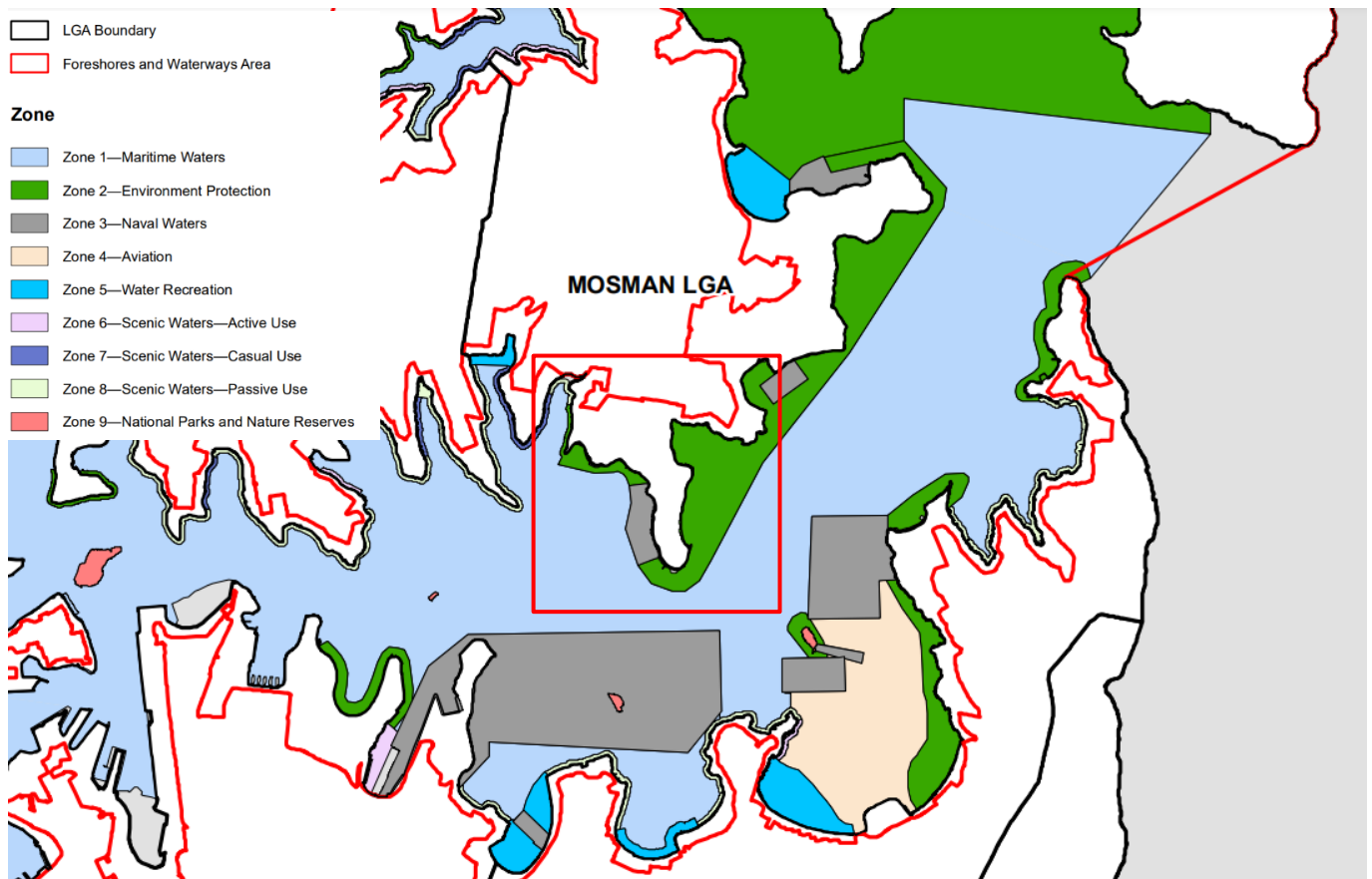


Figure 8 State Environmental Planning Policy (Biodiversity and Conservation) 2021 zoning of adjacent parts of Sydney Harbour

Source: DPE

Mosman Local Environmental Plan 2012

Under the MLEP 2012, the site is mapped as having the following attributes relevant to visual impact:

- **Land zone:** SP1 Zoological Gardens
- **Heritage:** heritage sites (item I34, local significance: “Rainforest Aviary”, “Elephant House”, bus shelter and office, floral clock and upper and lower entrance gates) and archaeological sites (Athol Wharf Tram Terminus (including escarpment and retaining wall) and Taronga Zoo Wharf (remains and sea wall))
- **Additional local provisions:** Scenic Protection Area

The site does not have a maximum height of buildings or floor space ratio.

Sydney Harbour Foreshores and Waterways Area Development Control Plan 2005

Under the Sydney Harbour DCP, the site is mapped as having the following attributes relevant to visual impact:

- Foreshores and Waterways Area
- Primarily ‘Grassland’ ecological community (refer **Figure 9**)
- Adjacency to Landscape Character Type 2 (Athol Bay) and Landscape Character 9 (Little Sirius Cove) (refer **Figure 9**)

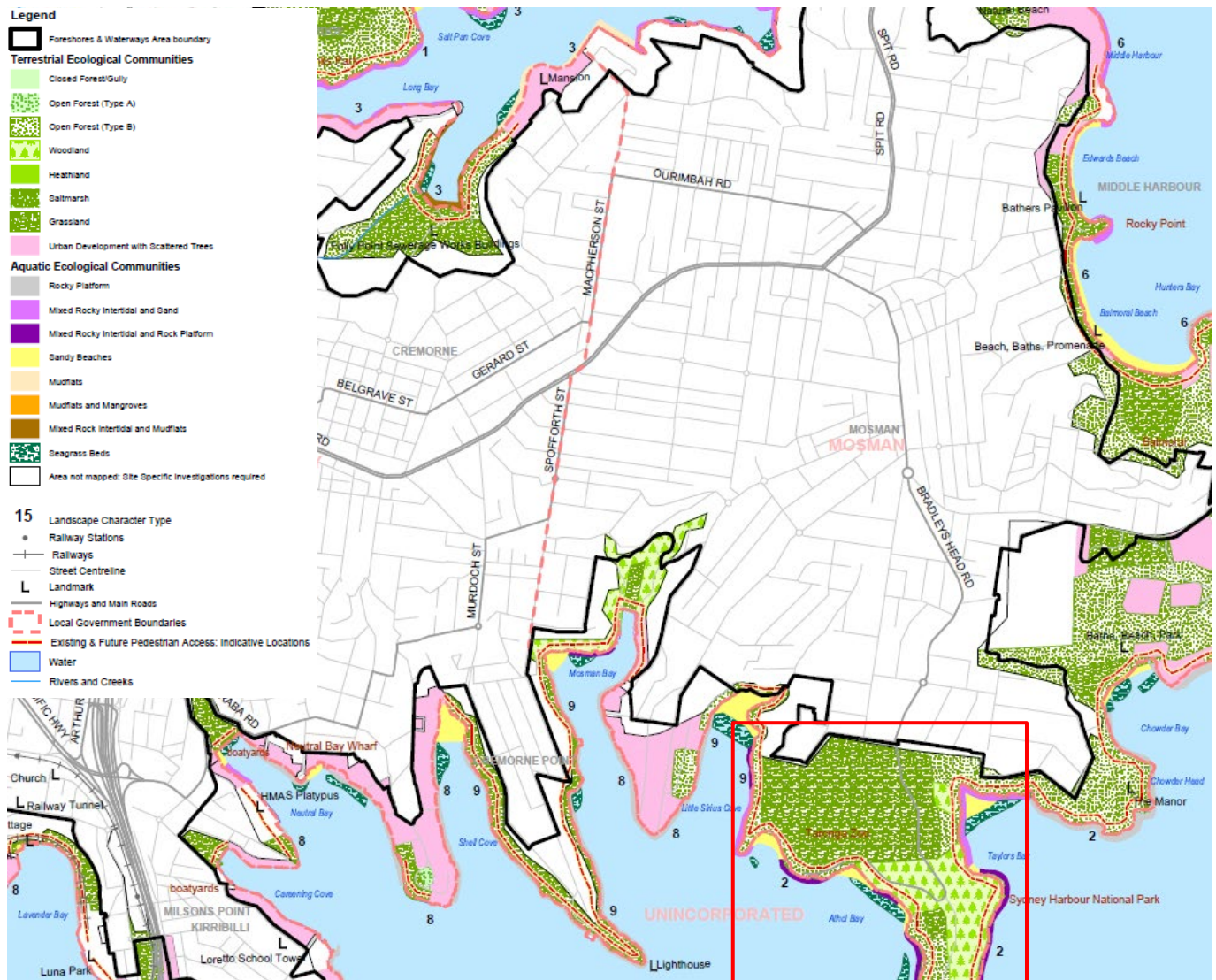


Figure 9 Sydney Harbour Foreshores and Waterways Area Development Control Plan ecological communities and landscape character types (Map 10)

Source: DPE

6.0 Methodology

The purpose of VIA is to identify whether the proposal results in a significant, unacceptable visual impact, considering impact on views overall.

Consideration of visual impact is inherently subjective, and involves professional value judgements. As noted by the Land and Environment Court of New South Wales (the LEC) in *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor* [2013] NSWLEC 1046 (Rose Bay), the key to addressing this challenge is to adopt a rigorous methodology.

The methodology used by this VIA is derived from the international standard ‘Guidelines for Landscape and Visual Impact Assessment’ version 3 (GLVIA3), the NSW Land and Environment Court (LEC) planning principle for ‘impact on public domain views’ established in *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor* [2013] NSWLEC 1046 (Rose Bay).

Three key stages

The method adopted by this VIA comprises three main parts:

1. View and visual analysis
2. Preparation of the visual evidence base
3. Assessment of the visual evidence base

View and visual analysis

This part involves desktop and field work to identify and describe the visual catchment, including visual receptors, and identify viewpoints for which the visual evidence base will be prepared.

All viewpoints for this VIA have been identified and selected in consultation with a heritage expert. Key viewpoints have been chosen to ensure the proposal effectively responds to and considers the heritage significance of local heritage items within the Zoo grounds and the strong historical presence of Taronga.

Preparation of the evidence base

Consistent with the LEC photomontage policy, the evidence based is prepared using surveying, photography and software-based modelling and comprises:

- A photograph of the existing view from the viewpoint.
- A photomontage illustrating the potential future view from the viewpoint should the proposal be approved, which may include any appropriate reference points such as an approved planning envelope.

Assessment of the evidence base

Assessment of the evidence base was undertaken against three main considerations:

- Sensitivity of the view to the nature of change proposed.
- Magnitude of the nature of change proposed.
- Significance of visual impact based on sensitivity and magnitude.
- Relevant matters of the statutory planning framework.

There are a number of factors to be considered in regard to sensitivity and magnitude (Refer to **Table 3**).

Once determined, sensitivity and magnitude are combined to determent the significance of visual impact.

Table 3 Factors considered in visual impact

Sensitivity	Magnitude
<ul style="list-style-type: none"> • Type of people • Number of people • Social and cultural value • Visual characteristics 	<ul style="list-style-type: none"> • Size and scale • Contrast or compatibility • Geographic extent • Duration and reversibility

Assessment of visual impact against relevant matters in the statutory planning framework

A determination of significant visual impact does not mean the proposal is unacceptable.

Rather, acceptability is determined having regard to relevant matters in the statutory planning framework.

Limitations and exclusions

The following limitations apply to this report:

- While photomontages provide an indication of the likely future visual environment, they can only provide an approximation of the rich visual experience enabled by the human eye. As they are based on photographs, the same limitations that apply to photography, including optical distortion, apply

Assessment of the following matters are excluded from consideration by this report:

- Detailed consideration of cable cars – have not been visually represented
- Detailed consideration of landscape character
- Detailed consideration of heritage
- Detailed consideration of private views
- Any consideration of Aboriginal cultural heritage

7.0 The key issues

As mentioned, the key substantive issues for consideration by this VIA are:

1. Integration with the landscape when seen from outside the Zoo
2. Integration with the landscape when seen from inside the Zoo
3. Interruption or blocking of high value views from the Zoo
4. Impact on private property in Mosman.

Integration with the landscape when seen from outside the Zoo

This means ensuring the proposal:

- Is not visually prominent
- Maintains the dominance of landscape over built form
- Ensures built form does not break the tree canopy

Integration with the landscape when seen from inside the Zoo

This means ensuring the proposal:

- Complements the various landscape characters of the zoo as articulated in the masterplan
- Does not interrupt views of heritage items against sky, vegetation or other unbuilt items

Interruption or blocking of high value views from the Zoo

This means ensuring the proposal does not interrupt or block important views from the Zoo to outside the Zoo to Sydney Harbour and its environs, including the Sydney CBD, Harbour Bridge and the Opera House.

Impact on private property in Mosman

This means ensuring the proposal does not unreasonably change the existing visual character.

8.0 Visual Catchment

8.1 Boundaries

The boundaries of a visual catchment are defined by a number of factors including distance, topography, buildings and vegetation.

The visual catchment of the Sky Safari is largely contained to views within the Zoo and the immediate surroundings of the Zoo. However, the Proposal will be visible from other public and private locations outside the Zoo in the surrounding area and other locations within Sydney Harbour. This includes:

- Key locations within the Zoo
- Reserves and public spaces in the surrounding area, south-east and south-west of the Zoo
- Public viewpoints in the Sydney Harbour and its foreshore, further south and south-west of the Zoo
- Local street network in the immediate surrounding area
- Residential areas to the north-east and north-west of the Zoo

8.2 Sensitivity of the visual catchment to the nature of change proposed

While a proposal may be visible within a visual catchment, this does not necessarily mean it will have a significant impact on the visual catchment.

Rather, this is determined based on the sensitivity of the visual catchment to the nature of change being proposed based on the consideration of:

- Place factors: its social and cultural value and visual characteristics
- People factors: the number of people who ordinarily use it, the type of people who ordinarily use it and how they ordinarily use it (the pattern of viewing)

8.2.1 Place factors

Social and cultural value

The Zoo is widely recognised as one of Australia's most popular attractions. As evidenced by the Taronga Zoo Wildlife Hospital EIS, Taronga Zoo hosts more than 1.8 million visitor annually and contributes an estimated \$249 million per annum to NSW economy.

Fundamentally, the Zoo's social and cultural value is multifaceted. As stated in the EIS;

- *Taronga Zoo has evolved over time from a Zoo that simply provides the traditional visitor experience of viewing animals in exhibits, to a Zoo that focusses on wildlife conservation, animal welfare and providing a range of visitor learning experiences*

The Taronga Zoo Conservation Strategy (2002) identifies Taronga Zoo as a place of national significance and describes the urban Zoo as a:

- *Unique and powerful cultural landscape and a wide range of landscape elements, architectural styles and enclosure designs evidencing the development of Zoos in Australia*

Further consideration of the following statements suggests that there are a number of significant features that underpin the Zoo's social and cultural value. As identified in the Taronga Zoo Landscape Management Plan (2006), some of these features include:

- Its prominent location on the northern foreshore of Sydney Harbour
- Its historic significance as an Edwardian and interwar Zoological Park
- The significance of built and natural landscape elements
- The historic and architectural significance of buildings across the site
- Its natural geomorphology and landscape character
- The steeply sloping topography of the site
- Its significance of vegetation, including remnant indigenous natural communities and mature cultural plantings
- The internal view and visual corridors within the site
- Extensive picnic and lawn areas
- Expansive views across Sydney Harbour to the City and beyond

The Taronga Zoological Gardens within the Zoo are identified as a 'Strategic Foreshore Site' (under Division 5 of Part 6.3 of the Biodiversity and Conservation SEPP 2021. Under the MLEP2012, the Zoo also contains a number of heritage items and is identified as a Scenic Protection Area pursuant to Section 6.4.

On this basis, the Zoo has considerable social and cultural value.

Visual characteristics

The prevailing visual character of the visual catchment is largely defined by the significant built fabric and defining natural characteristics of the Zoo. This character is correlated with high scenic amenity. The visual character of the visual catchment is also characterised by the surrounding well-vegetated foreshore, waterfront-residential areas and public spaces to the east and west of the Zoo. Also, low-density residential streetscapes to the north/north-east of Zoo are characterised by established single and double storey detached houses surrounded by private landscaped gardens.

Key elements that contribute to this visual character include:

- The steeply sloping topography of the Zoo
- Significant exotic, native and remnant indigenous vegetation
- Significant and dense tree canopy
- Open lawns and garden areas
- Layout of existing heritage buildings, structures and landmarks, including the existing Sky Safari
- Internal view corridors
- Views across Sydney Harbour to the City and beyond
- Moderate levels of landscaping and vegetation in the public realm
- Single and double storey residential dwellings to the north-east and north-west

Overall, the value of the visual catchment is considered to be high.

8.2.2 People Factors

Types of people

Considering the Zoo's prominent foreshore location and the diverse mix of uses that it accommodates, the proposal is likely to be viewed by the following people:

- Workers and employees of the Zoo
- Visitors to the Zoo
- People utilising ferry services within the Sydney Harbour and surrounding wharves, including Taronga Zoo Wharf, South Mosman Wharf and Cremorne Point Wharf
- Boat users and other transport modes utilising the Sydney Harbour
- Local residents in adjacent areas
- Visitors to the area
- Pedestrians utilising the local street network

As the Zoo is highly valued and utilised by a broad range of users, the level of interest and attention in the visual catchment is considered to be high.

8.3 Pattern of viewing

Considering the relevant place and people factors discussed above, the views of the proposal have been grouped in four broad types.

1. Views from within the Zoo
2. Views from outside the Zoo – close and medium range
3. Views from outside the Zoo – long range
4. Surrounding residential streets

This constitutes the 'pattern of viewing' for the proposal.

8.4 Key viewpoints

The key viewpoints for this VIA have been selected to represent the pattern of viewing and show the impact on key visual matters relevant to the zoo, namely:

- views and vistas to iconic and high value landscape elements
- contribution to city image and cityscape
- integration with its landscape setting
- relationship with Sydney Harbour and its foreshore
- protection of heritage.

Their selection has also been informed by review of relevant planning documents, including the Taronga Zoo Master Plan, and in collaboration with Taronga Zoo's heritage advisor.

Due to its evolution as part of design development and refinement in response to SDRP comment, some of the views are no longer directly aligned with the route of the sky safari. However, in our opinion it is important to retain these views in the VIA to ensure full address of the SEARs, and demonstrate the lack of visual impact on key views, in particular to heritage items within the zoo.

The location of these viewpoints are shown in **Figure 10, 11 & 12** and are detailed in **Table 4**, including the reason for their selection.

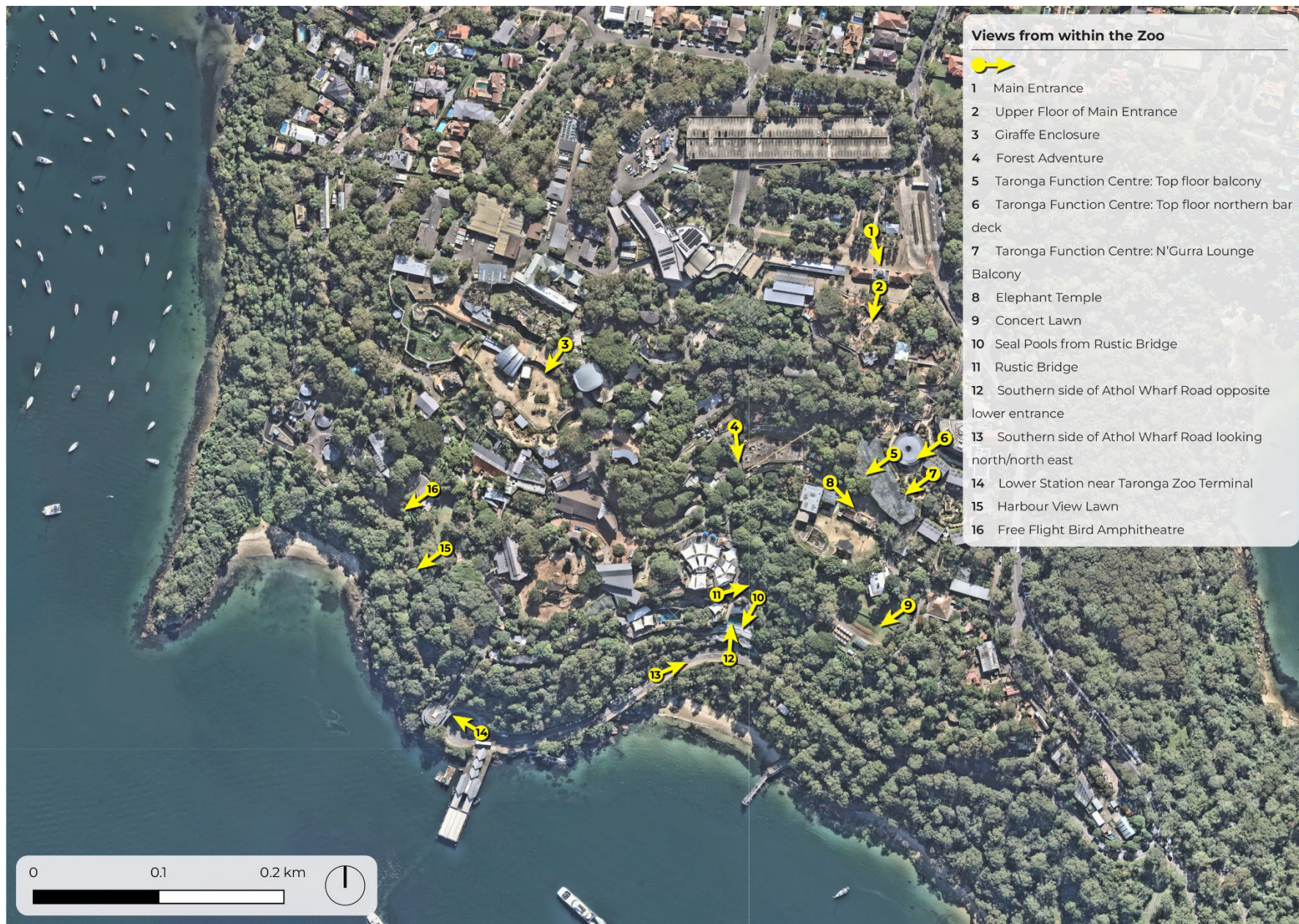


Figure 10 Views from inside the Zoo

Source: Ethos Urban



Figure 11 Views from outside the Zoo – close to medium range

Source: Ethos Urban

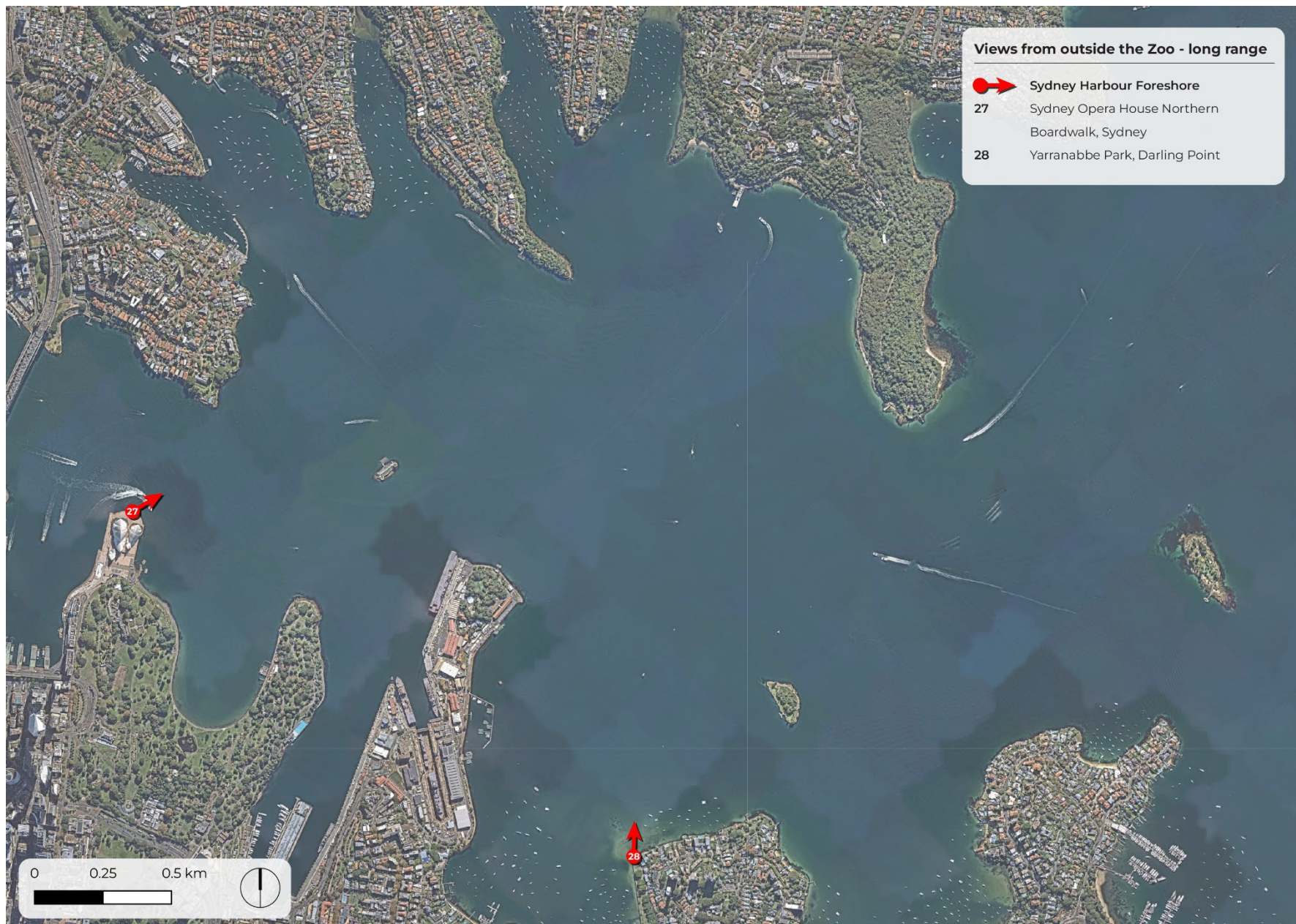


Figure 12 Views from outside the Zoo – long range

Source: Ethos Urban and Nearmap

Table 4 Viewpoints

Ref	Location	Direction of view	Target	Reason
Views from within the zoo				
1.	Main Entrance	South-east	Main Entrance Building	<ul style="list-style-type: none"> Impact on the architectural profile of the Main Entrance Building when viewed against the sky/vegetation
2.	Upper Floor of Main Entrance	South-west	Sydney Harbour and existing vegetation	<ul style="list-style-type: none"> Impact of cableway on internal views and views to Sydney Harbour
3.	Giraffe Enclosure	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on internal views and views to Sydney Harbour
4.	Forest Adventure/area under construction	South-east	Sydney Harbour and existing vegetation	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour
5.	Taronga Function Centre: top floor balcony	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
6.	Taronga Function Centre: Top floor northern bar deck	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
7.	Taronga Function Centre: N'Gurra Lounge Balcony	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
8.	Elephant Temple	South-east	Elephant Temple Building	<ul style="list-style-type: none"> Impact on the architectural profile of the Elephant Temple building
9.	Concert Lawn	South	Sydney Harbour and existing vegetation	<ul style="list-style-type: none"> Impact of cableway on internal views and views to Sydney Harbour
10.	Seal Pools from Rustic Bridge	South	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
11.	Rustic Bridge	East	Rustic Bridge and existing vegetation	<ul style="list-style-type: none"> Impact on the profile of the Rustic Bridge and internal views
12.	Southern side of Athol Wharf Road opposite Lower Entrance	North	Lower Entrance Building	<ul style="list-style-type: none"> Impact on the architectural profile of the Lower Entrance Building Impact of Cableway
13.	Southern side of Athol Wharf	North-east	Lower Entrance building and	<ul style="list-style-type: none"> Impact on views to Lower Entrance and public domain

Ref	Location	Direction of view	Target	Reason
	Road looking north/north east		Athol Wharf Road	
14.	Lower Station near Taronga Zoo Terminal	North-west	Lower Station and Taronga Zoo	<ul style="list-style-type: none"> Impact on Taronga Zoo Wharf Impact of Lower Station
15.	Harbour View Lawn	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
16.	Free Flight Bird Amphitheatre	South-west	Sydney Harbour and Sydney CBD	<ul style="list-style-type: none"> Impact of cableway on views to Sydney Harbour and Sydney CBD
Views from outside the zoo – close and medium range				
17.	Little Sirius Point	East	Lower Station and Taronga Zoo Wharf	<ul style="list-style-type: none"> Impact of cableway and Lower Station Impact on visual character of Sydney Harbour and its foreshore
18.	Curraghbeena Point Lookout Reserve	East	Zoo in general	<ul style="list-style-type: none"> Impact of cableway and Lower Station Impact on visual character of Sydney Harbour and its foreshore
19.	Taronga Zoo Ferry	North-east	Zoo in general	<ul style="list-style-type: none"> Impact of cableway and Lower Station when seen from key ferry access route to the Zoo
20.	Taronga Zoo Ferry	North-east	Zoo in general	<ul style="list-style-type: none"> Impact of cableway and Lower Station when seen from key ferry access route to the Zoo
21.	Cremorne Reserve	North-east	Zoo in general	<ul style="list-style-type: none"> Impact of cableway and Lower Station Impact on visual character of Sydney Harbour and its foreshore
22.	Ashton Park / Athol Bay Lookout	North-west	Zoo in general	<ul style="list-style-type: none"> Impact on visual character of Sydney Harbour and its foreshore
23.	Bradleys Head Wharf	North-west	Zoo in general	<ul style="list-style-type: none"> Impact on visual character of Sydney Harbour and its foreshore
24.	Whiting Beach Road	North-east	Zoo in general	<ul style="list-style-type: none"> Sensitive Receptor
25.	Prince Albert Street	North	Zoo in general	<ul style="list-style-type: none"> Sensitive Receptor
26.	Bradleys Head Road	North-west	Zoo in general	<ul style="list-style-type: none"> Sensitive Receptor
Views from outside the zoo – long range				
27.	Sydney Opera House Northern	North-east	Zoo in general	<ul style="list-style-type: none"> Impact when seen from Opera House and southern Sydney Harbour foreshore

Ref	Location	Direction of view	Target	Reason
	Boardwalk, Sydney			
28.	Yarranabbe Park, Darling Point	North	Zoo in general	<ul style="list-style-type: none"> Impact when seen from Opera House and southern Sydney Harbour foreshore

9.0 Visual impact assessment

9.1 Viewpoint 1 – Main Entrance

This view has been selected to show the proposal's impact on the architectural profile of the Main Entrance Building when viewed against the sky/vegetation.

9.1.1 Existing View



Figure 13 Viewpoint 1: Main Entrance (existing view)

Source: CMS Surveyors and Virtual Ideas

9.1.2 Existing View Description

This is a view of Taronga Zoo's Main Entrance building across the paved forecourt plaza and its skyline behind.

The paved forecourt and sparse street tree plantings occupy the foreground of this view. The Edwardian architectural style of the Main Entrance façade is dominant in the centre midground of the view. It strongly demarcates the forecourt, presenting a symmetrical, two-storey element built to the forecourt.

The skyline occupies a significant proportion of the background of this view. The skyline is in contrast with the built form in the foreground, emphasizing the profile of the Main Entrance building. More established vegetation and tree canopy in the background are also elements of this view, softening the appearance of the Main entrance building.

Table 5 Viewpoint 1 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 35m
Viewing direction	South-east
Viewing angle	Oblique
Viewing elevation	Level

The heritage value of this view is acknowledged. As heritage impact is not within the scope of this report, refer to the separate heritage report for consideration of this matter.

9.1.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 6 Viewpoint 1 – Main Entrance: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo, employees, pedestrians, local residents and visitors to the area	High
Number of people	Generally moderate flows of people entering and exiting the Zoo, increasing in peak times ie. beginning and end of operation hours	Medium
Social and cultural value	Main entrance to the Zoo and unique architectural building which forms part of the original fabric of the Site. Functions as a focal element and important landmark of Taronga and the area/local streetscape more broadly	High
Visual characteristics	Strong correlation with high scenic amenity	High
Sensitivity		High

9.1.4 Proposed View



Figure 14 Viewpoint 1: Main Entrance (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.1.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

The heritage value of this view is acknowledged. Accordingly, the Sky Safari is not located within the visual catchment of the heritage item.

No further assessment is required.

9.2 Viewpoint 2 – Upper floor of Main Entrance

This view has been selected to show the proposal's impact on internal views.

9.2.1 Existing View



Figure 15 Viewpoint 2: Upper floor of Main Entrance (existing view)

Source: CMS Surveyors and Virtual Ideas

9.2.2 Existing View Description

This is a view from the upper floor of Taronga Zoo's Main Entrance building across the paved entry area. It is acknowledged that this not a view that the public can generally access, as it is taken from office space within the Main Entrance building. Views from the plaza would generally be reduced by the tree line and this is a 'worse case scenario' where some views are available over the tree line.

Significant value can be attributed to the Zoo's established vegetation and dense tree canopy which dominate the midground and background of the view.

The paved plaza and signage are dominant features of the foreground. The high density of vegetation softens the appearance of the paved areas. The skyline also occupies a significant proportion of the background of this view.

The linearity of the pathway in the foreground and sloping height of the vegetation in the midground directs the eye to the skyline in the right side of the background. The Top Plaza shop is also visible in the right side of the midground.

Table 7 Viewpoint 2 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 40m
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Upper

9.2.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 8 Viewpoint 2 – Upper floor of Main Entrance: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Medium
Number of people	Generally moderate flows of people entering and existing the Zoo, increasing in peak times ie. beginning and end of operation hours	Medium
Social and cultural value	Functions as a heavily used and key meeting place within the Zoo	Medium
Visual characteristics	Visual amenity correlated within dominance and density of mature vegetation and tree canopy	Medium
Sensitivity		Medium

9.2.4 Proposed view



Figure 16 Viewpoint 2: Upper floor of Main Entrance (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.2.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.3 Viewpoint 3 – Giraffe Enclosure

This view has been selected to show the proposal's impact on internal views and views to Sydney Harbour.

9.3.1 Existing view



Figure 17 Viewpoint 3: Giraffe Enclosure (existing view)

Source: CMS Surveyors and Virtual Ideas

9.3.2 Existing View Description

This is a view from the main Zoo path across the Giraffe enclosure in the midground toward Sydney Harbour and CBD skyline in the background.

The paved area, wayfinding devices, Giraffe and Zebra enclosure occupy the foreground of this view.

The established headland vegetation, tree canopy and Sydney Harbour are dominate features of the midground.

The entirety of the Sydney Harbour bridge is visible in the right of the background, while a significant proportion of the Opera house can be seen in the lower centre of the background. The Sydney CBD dominates the centre of the background.

The varying building heights and forms of the Sydney CBD creates a distinct centre focal point and is enhanced by the sky backdrop of this view. This is widely acknowledged as the zoo's signature, iconic view. In showing animal enclosures against an extensive background vista of Sydney Harbour and the Sydney CBD skyline, including near totality of the Sydney Harbour Bridge Arch and the Opera House, this view demonstrates the zoo's unique and highly valued visual setting.

Table 9 Viewpoint 3 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-west
Viewing angle	Isometric
Viewing elevation	Level

9.3.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 10 Viewpoint 3 – Giraffe Enclosure: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	High
Number of people	Generally moderate flows of people, subject to those utilising the main path and visiting the Giraffe/Zebra enclosure	High
Social and cultural value	Functions as a central exhibit and meeting place within the Zoo, in close proximity to the Centenary Theatre and other animal exhibits/enclosures	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.3.4 Proposed view



Figure 18 Viewpoint 3: Giraffe Enclosure (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.3.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.4 Viewpoint 4 – Forest Adventure/area under construction

This view has been selected to the proposal's impact on views to Sydney Harbour.

9.4.1 Existing view



Figure 19 Viewpoint 4: Forest Adventure/area under construction (existing view)

Source: CMS Surveyors and Virtual Ideas

9.4.2 Existing View Description

This is a view of the Sydney Harbour and foreshore from the forest adventure precinct across the reptile and amphibians exhibit (currently under construction) and the Bondi Junction skyline behind.

The existing joist and stud structure in the lower-left corner and the extensive coverage of existing vegetation occupy the foreground of this view. The Sydney Harbour foreshore and skyline occupies a significant proportion of the background of this view.

Whilst the density of tree planting in the foreground obstructs views to the Sydney Harbour, a glimpse of the Harbour and foreshore is visible in the centre of the background. The skyline also emphasizes the linear profile of the foreshore in the background.

Table 11 Viewpoint 4 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 15m
Viewing direction	South-east
Viewing angle	Isometric
Viewing elevation	Level

9.4.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 12 Viewpoint 4 – Forest Adventure/area under construction: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-medium
Number of people	Generally moderate flows of people, subject to those utilising the main path and visiting the Reptiles and Amphibians exhibit	Low-medium
Social and cultural value	A key checkpoint within the zoo, located on the main path	Low-medium
Visual characteristics	Views to Sydney Harbour and foreshore correlated within high scenic amenity	High
Sensitivity		Medium

9.4.4 Proposed view



Figure 20 Viewpoint 4: Forest Adventure/area under construction (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.4.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.5 Viewpoint 5 – Taronga Function Centre: Top Floor Balcony

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.5.1 Existing view



Figure 21 Viewpoint 5: Taronga Function Centre: Top Floor Balcony (existing view)

Source: CMS Surveyors and Virtual Ideas

9.5.2 Existing View Description

This is a view of Sydney Harbour from the Taronga Function Centre across the Aviary and Rock Wallaby enclosure in the midground and the Sydney Harbour and CBD skyline in the background.

Established vegetation, dense tree canopy and enclosure netting comprises the entirety of the foreground and midground.

The sky occupies a significant proportion of the background of this view. Majority of the Sydney Harbour bridge is visible through the trees in the centre right of the background. The Sydney Harbour and CBD dominates the left side of the background.

The varying building heights and forms of the Sydney CBD skyline creates a distinct horizontal plane when against the sky and is a key feature of the background of this view.

Table 13 Viewpoint 5 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 300m
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Level

9.5.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 14 Viewpoint 5 – Taronga Function Centre: Top Floor Balcony: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Guests and visitors of the Taronga Retreat/Centre, employees of the Zoo	Medium
Number of people	Generally moderate levels of people, subject to the number of guests staying at the Retreat and function spaces being utilised ie. seasonal and demand for function spaces increasing at peak event times	Medium
Social and cultural value	Functions as a key cultural space and meeting place within the Zoo, which attracts and hosts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.5.4 Proposed view



Figure 22 Viewpoint 5: Taronga Function Centre: Top Floor Balcony (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.5.5 Magnitude of the nature of change proposed

The cableway and pylon (P3) will be visible in the centre right corner of the background of this view.

While partially visible, the height of the pylon element is level with the Harbour Bridge in the background. The cableway does exceed the height of the dominant canopy line in the midground. Importantly, the pylon and cableway do not impede upon views to the Sydney Harbour bridge, Sydney Harbour and CBD skyline.

The verticality of the pylon will be softened by thickly vegetated nature of the Aviary and Rock Wallaby enclosure which dominates the foreground and midground of this view.

Overall, the visual impact is considered to constitute a moderate change (due to the verticality of the pylon) over a restricted area that is ongoing but capable of being reversed.

The following table assesses the magnitude of the nature of change proposed.

Table 15 Viewpoint 5: Taronga Function Centre: Top Floor Balcony: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.5.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 16 Viewpoint 5 – Taronga Function Centre: Top Floor Balcony: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.6 Viewpoint 6 – Taronga Function Centre: Top floor northern bar deck

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.6.1 Existing view



Figure 23 Viewpoint 6: Taronga Function Centre: Top floor northern bar deck (existing view)

Source: CMS Surveyors and Virtual Ideas

9.6.2 Existing View Description

This is a view of Sydney Harbour and CBD skyline from the top floor of the northern bar deck of the Taronga Function Centre, across the lower Function Centre building in the foreground and the Zoo's established vegetation in the midground.

The circular form of the lower Function Centre building dominates the foreground of this view. The established vegetation and dense tree canopy of the Zoo comprises a significant proportion of the midground. Glimpses of other Zoo buildings clustered across the landscape are visible through the trees.

Sydney Harbour, the CBD and land interfaces are key elements of the background. The entirety of the Sydney Opera house is visible in the centre of the background, while a significant proportion of the Harbour Bridge is visible in the centre-right corner of the background.

The vertical profile of the CBD is pronounced in the background of this view, and the distinct tower forms and buildings heights are accentuated. The sky also occupies a significant proportion of the background of this view.

Table 17 Viewpoint 6 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 200m
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Upper

9.6.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 18 Viewpoint 6 – Main Entrance: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Guests and visitors of the Taronga Retreat/Centre, employees of the Zoo	Medium
Number of people	Generally moderate levels of people, subject to the number of guests staying at the Retreat and function spaces being utilised ie. seasonal and demand for function spaces increasing at peak event times	Medium
Social and cultural value	Functions as a key cultural space and meeting place within the Zoo, which attracts and hosts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.6.4 Proposed view



Figure 24 Viewpoint 6: Taronga Function Centre: Top floor northern bar deck (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.6.5 Magnitude of the nature of change proposed

The cableway and pylon (P4) will be visible in centre of the midground. The Sky Safari is predominantly screened by the existing, dense vegetation and tree canopy across the Zoo.

Whilst a significant proportion of the pylons are set behind existing tree canopy, the cableway does exceed tree height and interrupt canopy coverage in the midground. However, the profile of the function centre building in the foreground is not compromised and view lines to the Sydney Harbour and CBD are not impacted.

Overall, the visual impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assesses the magnitude of the nature of change proposed.

Table 19 Viewpoint 6: Taronga Function Centre: Top floor northern bar deck: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.6.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 20 Viewpoint 6: Taronga Function Centre: Top floor northern bar deck: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.7 Viewpoint 7 – Habitat and Wildlife Retreat: N’Gurra Lounge Balcony

This view has been selected to the proposal’s impact on views to Sydney Harbour and Sydney CBD.

9.7.1 Existing view



Figure 25 Viewpoint 7: Habitat and Wildlife Retreat: N’Gurra Lounge Balcony (existing view)

Source: CMS Surveyors and Virtual Ideas

9.7.2 Existing View Description

This is a panoramic view of Sydney Harbour and CBD skyline from the N’Gurra Lounge Balcony, across the thickly vegetated, Habitat and Wildlife Retreat in the foreground and the Zoo’s established vegetation in the midground.

The foreground comprises the Habitat and Wildlife Retreat multi-storey, accommodation buildings set within densely vegetated landscape. In the foreground and midground, the heavily treed and vegetated landscape of this area of the Zoo is dominant. Glimpses of other Zoo buildings and enclosures are visible through the trees in the centre of the midground.

Sydney Harbour and foreshore landforms are defining elements of the background. The Sydney CBD dominates the left side background while the North Sydney CBD dominates the right-side background. Notably, the full extent of both Sydney Opera House and Harbour Bridge are visible in the centre of the background.

The verticality of the Sydney and North Sydney CBD skyline is pronounced in the background of this view. The sky also occupies a significant proportion of the background of this view.

Table 21 Viewpoint 7 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 150m
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Upper

9.7.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 22 Viewpoint 7 – Habitat and Wildlife Retreat: N'Gurra Lounge Balcony: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Guests and visitors of the Taronga Retreat/Centre, employees of the Zoo	Medium
Number of people	Generally moderate levels of people, subject to the number of guests staying at the Retreat and function spaces being utilised ie. seasonal and demand for function spaces increasing at peak event times	Medium
Social and cultural value	Functions as a key cultural space and meeting place within the Zoo, which attracts and hosts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.7.4 Proposed view



Figure 26 *Viewpoint 7: Habitat and Wildlife Retreat: N’Gurra Lounge Balcony (proposed view)*

Source: CMS Surveyors and Virtual Ideas

9.7.5 Magnitude of the nature of change proposed

Pylon elements (P3 & P4) and the cableway are visible in the midground.

While the pylon elements and cableway are the visible in the centre of the midground, the Sky Safari is predominantly concealed by the dense vegetation and tree canopy across the Zoo.

Whilst a significant proportion of the pylons are set within existing tree canopy, the cableway does exceed tree height and interrupt canopy coverage in the midground. However, the Habitat and Wildlife retreat buildings and landscaping and existing vegetation across the Zoo still define the visual character of the view. Importantly, the panoramic view of Sydney Harbour and CBD is not unreasonably impacted.

Overall, the visual impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assesses the magnitude of the nature of change proposed.

Table 23 Viewpoint 7: Habitat and Wildlife Retreat – N'Gurra Lounge Balcony: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.7.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 24 Viewpoint 7: Habitat and Wildlife Retreat – N'Gurra Lounge Balcony: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.8 Viewpoint 8 – Elephant Temple

This view has been selected to the proposal's impact on the architectural profile of the Elephant Temple building.

9.8.1 Existing view



Figure 27 Viewpoint 8: Elephant Temple (existing view)

Source: CMS Surveyors and Virtual Ideas

9.8.2 Existing View Description

This is a view of the Elephant Temple Building across the main path and forecourt area and its skyline behind.

The paved footpath, forecourt area and public seating occupy the foreground of the view. The Mughal architectural style of the Elephant Temple façade is dominant in the centre midground of this view. Functioning as a key marker within the Zoo landscape, it strongly demarcates the forecourt and presents a finely detailed, two-storey built element to the forecourt.

The sky occupies a significant proportion of the background of this view. The skyline is in contrast with the built form in the foreground, emphasizing the profile and grandeur of the dome in particular. More established vegetation and tree canopy are also an element of this view, drawing the eye down the path in the background.

Table 25 Viewpoint 8 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-east
Viewing angle	Oblique
Viewing elevation	Level

9.8.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 26: Viewpoint 8 – Elephant Temple: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-medium
Number of people	Generally moderate flows of people, subject to those utilising the main path and visiting the Camel enclosure (behind the Elephant Temple frontage)	Medium
Social and cultural value	Key landmark and significant building (reflective of early phases of Zoo development), key marker and exhibit within the Zoo landscape, located on main path	High
Visual characteristics	Architectural significance of building correlated with high scenic amenity	High
Sensitivity		Medium

9.8.4 Proposed view



Figure 28 Viewpoint 8: Elephant Temple (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.8.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.9 Viewpoint 9 – Concert Lawn

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.9.1 Existing view



Figure 29 Viewpoint 9: Concert Lawn (existing view)

Source: CMS Surveyors and Virtual Ideas

9.9.2 Existing View Description

This is a view across the Concert Lawn from the main path toward Sydney Harbour and its skyline behind.

The open grassed lawn, paved areas, existing built structures and vegetation occupy the foreground of this view.

The established vegetation and tree canopy that defines the south-eastern edge of the Zoo headland dominates the midground of this view.

The Sydney Harbour and CBD skyline occupies a significant proportion of the background of this view. While the density of tree canopy in the midground obstructs the central view to Sydney Harbour, majority of the Harbour Bridge and CBD skyline is visible in the background. The sky also emphasizes the profile of the CBD in the background.

Table 27 Viewpoint 9 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South
Viewing angle	Oblique
Viewing elevation	Upper

9.9.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 28 Viewpoint 9 – Concert Lawn: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees, people hosting and attending events held on the Concert Lawn	Medium-High
Number of people	Generally moderate-high levels of people, subject to people utilising the main path and events being held in the space	Medium-High
Social and cultural value	Functions as a key meeting place and cultural space within the Zoo, which attracts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.9.4 Proposed view



Figure 30 Viewpoint 9: Concert Lawn (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.9.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.10 Viewpoint 10 – Seal Pools from Rustic Bridge

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.10.1 Existing view



Figure 31 Viewpoint 10: Seal Pools from Rustic Bridge (existing view)

Source: CMS Surveyors and Virtual Ideas

9.10.2 Existing View Description

This is a view across the Seal pool enclosure which abuts the lower Main Entrance of the Zoo from Athol Wharf Road.

The profile of the Lower Main Entrance façade and the triangular roof forms define the left side foreground of this view. Rock landforms, vegetation and other enclosure infrastructure dominate the right side of the foreground. The land and water interface also form a key part of the foreground.

The Sydney Harbour comprises a significant proportion of the midground of this view. The Sydney CBD dominates the centre of the background.

The height and scale of built form in the background tapers from the right to the left, moving away from the CBD toward the eastern-suburb foreshore areas. The sky also occupies a significant proportion of the background of this view and accentuates the verticality of the CBD skyline in the background.

Table 29 Viewpoint 10 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South
Viewing angle	Oblique
Viewing elevation	Upper

9.10.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 30 Viewpoint 10 – Seal Pools from Rustic Bridge: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-Medium
Number of people	Generally moderate levels of people, subject to people utilising the walkway to exit the Zoo and seal show audience ie. increasing in peak Zoo visit times; school and work holidays	Medium
Social and cultural value	Functions as a key exhibit and meeting place within the Zoo, which attracts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.10.4 Proposed view



Figure 32 Viewpoint 10: Seal Pools from Rustic Bridge (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.10.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.11 Viewpoint 11 – Rustic Bridge

This view has been selected to the proposal's impact on the profile of the Rustic Bridge and internal views.

9.11.1 Existing view



Figure 33 Viewpoint 11: Rustic Bridge (existing view)

Source: CMS Surveyors and Virtual Ideas

9.11.2 Existing View Description

This is a view of the Rustic Bridge from the main path that is adjacent to the Seal Show complex.

The rustic-style, stone corbel bridge set amongst dense vegetation defines the left side foreground of this view. The paved lower bridge and railing set above the seal enclosure is visible in the right corner of the midground.

In the midground, the heavily treed and thickly vegetated landscape of this area of the Zoo is dominant.

The sky dominates the background of this view and accentuates the sloping topography of the headland.

Table 31 Viewpoint 11 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	East
Viewing angle	Oblique
Viewing elevation	Level

9.11.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 32 Viewpoint 11 – Rustic Bridge: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-Medium
Number of people	Generally moderate levels of people, subject to people utilising the walkway to exit the Zoo and seal show audience ie. increasing in peak Zoo visit times; school and work holidays	Medium
Social and cultural value	Remaining original built landscape element, functions as a key marker within the Zoo landscape, located on the main path	Medium-high
Visual characteristics	Significance of built structure, defining natural characteristics and dense vegetation of the headland contribute to scenic value	Medium
Sensitivity		Medium

9.11.4 Proposed view



Figure 34 *Viewpoint 11: Rustic Bridge (proposed view)*

Source: CMS Surveyors and Virtual Ideas

9.11.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.12 Viewpoint 12 – Southern side of Athol Wharf Road opposite Lower Entrance

This view has been selected to the proposal's impact on the architectural profile of the Lower Entrance Building.

9.12.1 Existing view



Figure 35 Viewpoint 12: Southern side of Athol Wharf Road opposite Lower Entrance (existing view)

Source: CMS Surveyors and Virtual Ideas

9.12.2 Existing View Description

This is a view of the Zoo's Lower Entrance and forecourt area across the zebra crossing from the Southern side of Athol Bay Wharf and its skyline behind.

The foreground, midground and background are particularly distinct in this view.

The paved forecourt and surrounding vegetation occupy the foreground of this view. Functioning as a key landmark of the Zoo, the Edwardian architectural style of the Lower Entrance façade dominates the midground of the view. It strongly demarcates the Zoo's southern entrance, presenting an elegant, symmetrical one-storey element built to the forecourt that abuts Athol Wharf Road.

The Zoo's dense vegetation and skyline are key visual elements of the background of this view. Together, the skyline and vegetation in the background accentuate the profile of the Lower entrance building in the midground.

Table 33 Viewpoint 12 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	North/north-east
Viewing angle	Oblique
Viewing elevation	Lower

9.12.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 34 Viewpoint 12 – Southern side of Athol Wharf Road opposite Lower Entrance: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo, employees, pedestrians, motorists, ferry passengers, boat users and other transport modes utilising the Sydney Harbour, local residents and visitors to the area	High
Number of people	Generally moderate-high flows of people entering, exiting and passing by the Zoo, increasing in peak times ie. Taronga Zoo Wharf ferry service times, beginning and end of operation/work hours	High
Social and cultural value	Lower entrance to the Zoo and unique architectural building which forms part of the original fabric of the Site. Functions as a focal element and important landmark of Taronga Zoo and the area/local streetscape more broadly	High
Visual characteristics	Strong correlation with high scenic amenity	High
Sensitivity		High

9.12.4 Proposed view



Figure 36 Viewpoint 12: Southern side of Athol Wharf Road opposite Lower Entrance (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.12.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.13 Viewpoint 13 – Southern side of Athol Wharf Road looking north/north east

This view has been selected to the proposal's impact on the zoo's main access road, the natural landscape and the skyline formed by vegetation.

9.13.1 Existing view



Figure 37 Viewpoint 13: Southern side of Athol Wharf Road looking north/north east (existing view)

Source: CMS Surveyors and Virtual Ideas

9.13.2 Existing View Description

This is a view of Athol Wharf Road and pedestrian walkway toward the Zoo's Lower Main Entrance and landscape behind.

The paved roadway, roadside vegetation, pedestrian walkway and barricade occupy the foreground of this view. The linear nature of the road directs the eye to the midground, toward the Zoo's Lower Main Entrance. Athol Bay and surrounding vegetation dominate the lower right corner of the midground.

In the midground, the heavily treed and thickly vegetated landscape of the Zoo is dominant. The Lower Main Entrance building and roof elements are partially visible in the centre of the midground.

The sky is a key visual element of the background of this view. The sky in contrast with the vegetation in the midground, accentuates the densely vegetated nature of the Zoo's landscape.

The Zoo's dense vegetation and skyline are key visual elements of the background of this view. Together, the skyline and vegetation in the background accentuate the profile of the Lower entrance building in the midground.

Table 35 Viewpoint 13 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	East
Viewing angle	Oblique
Viewing elevation	Level

9.13.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 36 Viewpoint 13 – Southern side of Athol Wharf Road looking north/north-east: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo, employees, pedestrians, motorists, ferry, local residents and visitors to the area	Medium-High
Number of people	Generally moderate-high flows of people entering, exiting, and passing by the Zoo, increasing in peak times ie. Taronga Zoo Wharf ferry service times, beginning and end of operation/work hours	High
Social and cultural value	Functions as the main public footpath, connection point to lower entrance of the zoo and area/local streetscape more broadly	Medium
Visual characteristics	Dense vegetation of the headland and views to Athol Bay contribute to scenic value	Medium
Sensitivity		Medium

9.13.4 Proposed view



Figure 38 Viewpoint 13: Southern side of Athol Wharf Road looking north/north east (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.13.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.14 Viewpoint 14 – Lower Station near Taronga Zoo Terminal

This view has been selected to the proposal's impact on the main access point to the zoo for visitors arriving by ferry from Circular Quay.

9.14.1 Existing view



Figure 39 Viewpoint 14: Lower Station near Taronga Zoo Terminal (existing view)

Source: CMS Surveyors and Virtual Ideas

9.14.2 Existing View Description

This is a view of the existing lower cable car terminal and the Zoo's south-western interface adjacent to Taronga Zoo Terminal over Athol Wharf Road.

Athol Wharf Road and the pedestrian footpath occupies a significant proportion of the foreground of this view. As the main road servicing the Taronga Ferry Wharf and Bus Stop, Athol Wharf Road ordinarily sees moderate to high levels of vehicular traffic.

The existing lower cable car terminal building, elevated walkway and dense headland vegetation define the midground of the view. The elevated walkway guides the eye upwards and to the right and to the cable car terminal in the centre of the midground.

Adjacent to the Ferry wharf, the lower cable car terminal and cableway is visible from the Harbour and is of high value to the community, as a gateway for a highly valued transport and visitor experience.

The dense headland vegetation and sky occupy a large part of the backdrop of this view.

Table 37 Viewpoint 14 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 15m
Viewing direction	North-west
Viewing angle	Oblique
Viewing elevation	Level

9.14.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 38 Viewpoint 14 – Lower Station near Taronga Zoo Terminal: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo, employees, pedestrians, motorists, ferry passengers, boat users and other transport modes utilising the Sydney Harbour, local residents and visitors to the area	High
Number of people	Generally moderate-high flows of people utilising the Sky Safari and passing by the lower cable car terminal, increasing in peak times ie. Taronga Zoo Wharf ferry service times, beginning and end of operation/work hours	High
Social and cultural value	Functions a highly valued transport and visitor experience and an important landmark of Taronga Zoo and the foreshore area more broadly	High
Visual characteristics	Visual connotations associated with the cable car and its foreshore location correlated with high scenic amenity	High
Sensitivity		High

9.14.4 Proposed view



Figure 40 Viewpoint 14: Lower Station near Taronga Zoo Terminal (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.14.5 Magnitude of the nature of change proposed

This view is illustrative of the nature of change proposed for the Zoo's southern interface and surrounding Taronga Zoo Wharf area.

The Lower Station occupies a significant proportion of the midground of this view. However, its location, footprint, size and massing is similar to that of the existing building. While a distinct and highly-visible element, the proposed design for the Lower Station is more contextually responsive and better aligns with the environmentally storylines and focuses of the Zoo. This is in particular achieved by its unique architectural profile and materiality that includes timber battens, palisade fencing and blue balustrading.

The foreground and background will not be directly affected by the proposal.

Considering the increased visual prominence of the proposed Lower Station, the visual impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 39 Viewpoint 14: Lower Station near Taronga Zoo Terminal: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.14.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 40 Viewpoint 9: Lower Station near Taronga Zoo Terminal: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.15 Viewpoint 15 – Harbour View Lawn

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.15.1 Existing view



Figure 41 Viewpoint 15: Harbour View Lawn (existing view)

Source: CMS Surveyors and Virtual Ideas

9.15.2 Existing View Description

This is a view of Sydney Harbour and CBD skyline from the Harbour View Lawn across the thickly vegetated, south-western interface of the Zoo.

Fencing, established vegetation and tree canopy dominate the foreground of this view.

A glimpse of Sydney Harbour, as well as land and water interfaces are visible in the midground of this view.

Majority of the Sydney Harbour bridge is visible through the trees in the centre right of the background. The Sydney CBD skyline dominates the centre of the background. Beyond the trees in the foreground, the sky occupies a significant proportion of the background of this view.

Table 41 Viewpoint 15 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Level

9.15.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 42 Viewpoint 15 – Harbour View Lawn: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-medium
Number of people	Generally low-moderate-high flows of people utilising the Harbour View Lawn	Low-medium
Social and cultural value	Located on the Main path, in close proximity to key animal enclosures and exhibits	Medium
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		Medium

9.15.4 Proposed view



Figure 42 *Viewpoint 15: Harbour View Lawn (proposed view)*

Source: CMS Surveyors and Virtual Ideas

9.15.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.16 Viewpoint 16 – Free Flight Bird Amphitheatre

This view has been selected to the proposal's impact on views to Sydney Harbour and Sydney CBD.

9.16.1 Existing view



Figure 43 Viewpoint 16: Free Flight Bird Amphitheatre (existing view)

Source: CMS Surveyors and Virtual Ideas

This is a view across the Free Flight Birds Show amphitheatre toward the Sydney Harbour and CBD skyline.

Amphitheatre seating and paved areas define the left side foreground of this view. The grassed and vegetated staged area dominates the right side of the foreground. The established tree canopy that defines the south-western interface of the Zoo is also a key feature.

Sydney Harbour, as well as land and water interfaces are dominant features of the midground of this view. Foreshore residential dwellings and high-rise apartments situated on the Cremorne Point headland are also visible in the right of the midground.

Sydney Harbour Bridge is visible in the right side and Sydney Opera House in the centre of the background. The Sydney CBD skyline is also a focal point of the background and is enhanced by the sky backdrop of this view.

Table 43 Viewpoint 16 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Upper

9.16.2 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 44 Viewpoint 16 – Free Flight Bird Amphitheatre: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo and employees	Low-Medium
Number of people	Generally moderate levels of people, subject to people visiting the Free Flight Bird Amphitheatre and shows scheduled	Medium
Social and cultural value	Functions as a key exhibit and meeting place within the Zoo, which attracts a diversity of guests/visitors	High
Visual characteristics	Views to Sydney Harbour and CBD skyline correlated within high scenic amenity	High
Sensitivity		High

9.16.3 Proposed view



Figure 44 Viewpoint 16: Free Flight Bird Amphitheatre (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.16.4 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.17 Viewpoint 17 – Little Sirius Point

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

Acknowledgement

This is the first of a sequence of public views that potentially replicate views of the proposed development gained from private properties to the west/south-west of the site (Viewpoint 17, 18 & 21).

Accordingly, we acknowledge that these viewpoints are particularly sensitive as more people are able to access these views. Nonetheless, as these views are from the public domain, the sensitivity of these views does not alter the technical assessment.

However, these public viewpoints have been subject to detailed consideration with the intent to minimise impact as much as possible through design and operational parameters.

9.17.1 Existing view



Figure 45 Viewpoint 17: Little Sirius Point (existing view)

Source: CMS Surveyors and Virtual Ideas

9.17.2 Existing View Description

This is a view across Whiting Beach in the foreground to the Taronga Zoo southern interface and Ferry Wharf in the midground and Bradleys Head headland in the background.

Sydney Harbour comprises the entirety of foreground, alongside headland vegetation in the left corner.

Headland vegetation and the Taronga Zoo Ferry Wharf comprises the entirety of the midground. In this view, the northern, thickly vegetated area of the headland is dominant. The existing lower cable car terminal is partially visible in the centre of the midground of the view, positioned slightly above the dominant tree canopy line. The land and water interface, and in particular the Taronga Zoo Ferry Wharf and maritime facilities, also form a key part of the midground.

Bradleys Head headland and the sky define the background of this view. The largely horizontal profile of the headland creates a strong contrast when viewed against the sky.

Table 45 Viewpoint 17 details

Item	Detail
Viewing range	Close
Viewing distance	Approx. 200m
Viewing direction	East
Viewing angle	Oblique
Viewing elevation	Level

9.17.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 46 Viewpoint 17 – Little Sirius Point: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	People engaged in active outdoor recreation (Curlew Camp Artists’ Walk track), visitors of Whiting Beach, boat users and other transport modes utilising the Sydney Harbour	Low-medium
Number of people	Generally low-moderate number of people utilising the walking track or visiting Whiting Beach	Low-medium
Social and cultural value	Positioned on the Curlew Camp Artists Walk Track, abuts Whiting Beach and in close proximity to Taronga Zoo and Ferry Wharf	Medium
Visual characteristics	Defining natural characteristics, dense vegetation of the Taronga Zoo/Bradleys Head and views of Sydney Harbour contribute to scenic value	Medium
Sensitivity		Medium

9.17.4 Proposed view



Figure 46 Viewpoint 17: Little Sirius Point (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.17.5 Magnitude of the nature of change proposed

The Lower Station, pylon elements (P2 and P3) and cableway are visible in the midground of this view.

The Lower Station will be visible in the centre-right midground of this view. Glimpses of the pylon elements are visible through the tree canopy in the centre and left corner midground of the view. P2 and the cableway follow the tree canopy line.

While the Lower Station features increased bulk and scale, the proposal successfully reinforces the value and identity of the Zoo. The structural forms and colour palette of the Lower Station also creates a stronger visual integration between the Zoo and the headland landscape.

The proposal will not affect views to the Harbour or effect the important land and water interface in the midground.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 47 Viewpoint 17: Little Sirius Point: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.17.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 48 Viewpoint 17: Little Sirius Point: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.18 Viewpoint 18 – Curraghbeena Point Lookout Reserve

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.18.1 Existing view



Figure 47 Viewpoint 18: Curraghbeena Point Lookout Reserve (existing view)

Source: CMS Surveyors and Virtual Ideas

9.18.2 Existing View Description

This is a view from Curraghbeena Point Lookout across Sirius Cove (Sydney Harbour) in the foreground to Whiting Beach headland in the midground and the Taronga Zoo headland and Ferry Wharf in the background.

Sirius Cove comprises the entirety of the foreground, alongside maritime and associated facilities located in the centre to left corner.

The densely vegetated Whiting Beach headland and Taronga Zoo headland dominate the midground. Glimpses of residential dwellings and Zoo buildings amid the tree canopy are visible in the centre and centre-left of the midground. The existing cableway and lower cable car terminal are partially visible in midground of the view, located just above tree canopy.

The land and water interfaces, and the Taronga Zoo Ferry Wharf and maritime facilities, form a key part of the midground and background. Bradleys Head headland and the sky, define the background of the view. The downward sloping, horizontal profile of the headland creates a strong contrast when viewed against the sky.

Table 49 Viewpoint 18 details

Item	Detail
Viewing range	Close-Medium
Viewing distance	Approx 580m
Viewing direction	East
Viewing angle	Oblique
Viewing elevation	Upper

9.18.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 50 Viewpoint 18 – Little Sirius Point: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to Curraghbeena Point Lookout Reserve, people engaged in active outdoor recreation (Foreshore Track), local residents, boat users and other transport modes utilising the Sydney Harbour	Medium
Number of people	Generally low-moderate number of people visiting Curraghbeena Lookout or utilising Sirius Cove	Low-medium
Social and cultural value	Positioned on Curraghbeena Cove, in close proximity to Curragbeena Park, Sirius Cove and Taronga Zoo and Ferry Wharf	Medium
Visual characteristics	Defining natural characteristics, dense vegetation of the Whiting Beach/Taronga Zoo/Bradleys Head and views of Sydney Harbour contribute to scenic value	Medium
Sensitivity		Medium

9.18.4 Proposed view



Figure 48 Viewpoint 18: Curraghbeena Point Lookout Reserve (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.18.5 Magnitude of the nature of change proposed

The Lower Station pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground and background of this view.

The majority of the Lower Station built form will be visible in the right midground of this view. Vertical pylon elements and cableway are visible through the tree canopy in the centre and left corner midground of the view.

The Lower Station will emphasise the role and functionality of Taronga Zoo and the Wharf from surrounding headlands and Sydney Harbour.

Importantly, the proposal will not affect views to the Harbour in the foreground.

The impact is considered to constitute a moderate change over a wide area that is ongoing but capable of being reversed.

The following table assesses the magnitude of the nature of change proposed.

Table 51 Viewpoint 18: Curraghbeena Point Lookout Reserve: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.18.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 52 Viewpoint 18: Curraghbeena Point Lookout: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.19 Viewpoint 19 – Taronga Zoo Ferry (Close Range)

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.19.1 Existing view



Figure 49 Viewpoint 19: Taronga Zoo Ferry- Close Range (existing view)

Source: CMS Surveyors and Virtual Ideas

9.19.2 Existing View Description

This is a view across Sydney Harbour from Taronga Zoo Ferry toward Taronga Zoo and the broader Mosman headland.

Sydney Harbour comprises the entirety of the foreground.

The land and water interfaces, as well as Taronga Zoo Ferry Wharf and maritime facilities, form a key part of the midground. Glimpses of Whiting Beach are visible in the left midground and Athol Bay in the right midground. Taronga Zoo Wharf, the Zoo campus, and the densely vegetated surrounding headland occupy the centre midground. Located in the centre of the view, Taronga Zoo Ferry Wharf directs the eye to the midground. The existing Lower Station and glimpses of Zoo buildings, including existing pylons are visible across the thickly vegetated Zoo headland.

The sky defines the background of this view. The horizontal profile of the Mosman headland creates a strong contrast when viewed against the sky.

Table 53 Viewpoint 19 details

Item	Detail
Viewing range	Close
Viewing distance	Approx 150m
Viewing direction	North
Viewing angle	Oblique
Viewing elevation	Level

9.19.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 54 Viewpoint 19 – Taronga Zoo Ferry (Close Range): sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Ferry passengers, boat users and other transport modes utilising the Sydney Harbour	Medium
Number of people	Generally moderate number of people utilising Taronga Zoo Ferry service, other Ferry services (ie. Manly) and other modes of transport in the Sydney Harbour, increasing in peak times ie. beginning and end of work hours, weekends, public holidays	Medium-high
Social and cultural value	Association with Sydney Harbour, visibility from Taronga Zoo Ferry Service and prominent foreshore location	High
Visual characteristics	Defining natural characteristics, foreshore location and views of Sydney Harbour contribute to scenic value	High
Sensitivity		High

9.19.4 Proposed view



Figure 50 Viewpoint 19: Taronga Zoo Ferry- Close Range (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.19.5 Magnitude of the nature of change proposed

This viewpoint is critical as it replicates the experience of visitors travelling by Ferry as they arrive to Taronga Zoo Wharf.

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

The Lower Station built form, will be visible in the centre midground of this view. A considerable proportion of the Lower Station is concealed by existing vegetation and the roof profile sits below the tree canopy. Vertical pylon elements and cableway across the Zoo campus are visible in the centre and right upper midground.

As mentioned, while the Sky Safari will be a new prominent feature of this view, it reinforces the identity and location of the Zoo from Sydney Harbour. Importantly, the proposal does not impede upon views to the Harbour in the foreground.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 55 Viewpoint 19: Taronga Zoo Ferry – Close Range: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.19.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 56 Viewpoint 19: Taronga Zoo Ferry – Close Range: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.20 Viewpoint 20 – Taronga Zoo Ferry (Medium Range)

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore

9.20.1 Existing view



Figure 51 Viewpoint 20 Taronga Zoo Ferry- Medium Range (existing view)

Source: CMS Surveyors and Virtual Ideas

9.20.2 Existing View Description

This is a view across Sydney Harbour from Taronga Zoo Ferry toward Taronga Zoo and the broader Mosman headland.

Sydney Harbour comprises the entirety of the foreground.

The tree canopy and densely vegetated landscape of the Zoo and the broader Mosman headland and its horizontal profile defines the midground of this view.

The land and water interfaces, glimpses of Zoo buildings, wharves and maritime facilities, also form a key part of the midground. Glimpses of Whiting Beach are visible in the left midground and Athol Bay in the right midground. Located in the centre of the view, the Taronga Zoo Ferry Wharf and existing Lower Station directs the eye to the midground.

The sky defines the background of this view. The horizontal profile of the Mosman headland creates a strong contrast when viewed against the sky.

Table 57 Viewpoint 20 details

Item	Detail
Viewing range	Medium
Viewing distance	Approx 250m
Viewing direction	North
Viewing angle	Oblique
Viewing elevation	Level

9.20.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 58 Viewpoint 20 – Taronga Zoo Ferry – Medium Range: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Ferry passengers, boat users and other transport modes utilising the Sydney Harbour	Medium
Number of people	Generally moderate number of people utilising Taronga Zoo Ferry service, other Ferry services (ie. Manly) and other modes of transport in the Sydney Harbour, increasing in peak times ie. beginning and end of work hours, weekends, public holidays	Medium-high
Social and cultural value	Association with Sydney Harbour, visibility from Taronga Zoo Ferry Service and prominent foreshore location	High
Visual characteristics	Defining natural characteristics, foreshore location and views of Sydney Harbour contribute to scenic value	High
Sensitivity		High

9.20.4 Proposed view



Figure 52 Viewpoint 20 Taronga Zoo Ferry- Medium Range (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.20.5 Magnitude of the nature of change proposed

This viewpoint also replicates the experience of visitors travelling by Ferry as they arrive to Taronga Zoo Wharf.

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

While predominantly concealed by existing vegetation, the façade and upper roof elements of the Lower Station will be visible in the centre midground of this view. Vertical pylon elements and cableway are also visible in the centre midground, exceeding the height of dominant tree canopy within the Zoo landscape.

While the Sky Safari will be a new prominent feature of this view, it reinforces the identity and location of the Zoo from Sydney Harbour. Importantly, the proposal does not impede upon views to the Harbour in the foreground. The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

Table 59 Viewpoint 20: Taronga Zoo Ferry – Medium Range: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.20.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 60 Viewpoint 20: Taronga Zoo Ferry – Medium Range: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.21 Viewpoint 21 – Cremorne Reserve

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore

9.21.1 Existing view



Figure 53 Viewpoint 21: Cremorne Reserve (existing view)

Source: CMS Surveyors and Virtual Ideas

9.21.2 Existing View Description

This is a view across Sydney Harbour from Cremorne Reserve toward Taronga Zoo and the broader Mosman headland.

Foreshore vegetation and Sydney Harbour comprise the entirety of the foreground.

Various harbour beaches, land and water interfaces, Taronga Zoo, Taronga Zoo Ferry Wharf and maritime facilities define the midground. Whiting Beach and surrounding Zoo headland dominates the left midground. Taronga Zoo Wharf, the Zoo campus, and surrounding headland occupy the centre midground. The existing Lower Station is partially visible in the centre of the midground, while glimpses of roof profiles of Zoo buildings can also be seen amongst the thickly vegetated Zoo headland. Athol Beach, maritime facilities and Bradleys Head headland occupy the right midground.

The sky defines the background of this view. The downward sloping, horizontal profile of the Mosman headland creates a strong contrast when viewed against the sky.

Table 61 Viewpoint 21 details

Item	Detail
Viewing range	Medium
Viewing distance	Approx 670m
Viewing direction	North-East
Viewing angle	Oblique
Viewing elevation	Level

9.21.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 62 Viewpoint 21 – Cremorne Reserve: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to Cremorne Reserve and Robertsons Point Lighthouse, people engaged in active outdoor recreation, local residents, boat users and other transport modes utilising the Sydney Harbour	Medium
Number of people	Generally low-moderate number of people visiting Cremorne Reserve or Robertsons Point Lighthouse	Low-medium
Social and cultural value	Prominent foreshore location (Cremorne Reserve), in close proximity to Robertsons Point Lighthouse and Cremorne Point Wharf	High
Visual characteristics	Defining natural characteristics, foreshore location and views of Sydney Harbour contribute to scenic value	High
Sensitivity		Medium

9.21.4 Proposed view



Figure 54 Viewpoint 21: Cremorne Reserve (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.21.5 Magnitude of the nature of change proposed

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

The Lower Station is the most prominent proposal feature of this view.

Majority of the Lower Station built form will be visible in the centre midground of this view. The cableway and vertical pylon elements are visible in the centre and left upper midground and will be new visual features of this view.

The proposal does not impede upon views to the Harbour in the foreground.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 63 Viewpoint 21: Cremorne Reserve: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.21.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 64 Viewpoint 21: Cremorne Reserve: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.22 Viewpoint 22 – Ashton Park/Athol Bay Lookout

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.22.1 Existing view



Figure 55 Viewpoint 22: Ashton Park/Athol Bay Lookout (existing view)

Source: CMS Surveyors and Virtual Ideas

9.22.2 Existing View Description

This is a view across Athol Bay toward Athol Wharf and Taronga Zoo headland.

Athol Bay and surrounding foreshore vegetation are dominant features of the foreground.

In this view, the southern, thickly vegetated area of the Bradleys Head headland is dominant in the centre midground. Athol Wharf and associated maritime facilities are also key features of the midground. The linear form of Athol Wharf directs the eyes to the centre of the midground.

The dense vegetation that defines the Zoo's southern interface and skyline are key features of the background. Glimpses of the existing cableway, vertical pylon elements and Zoo buildings are also visible amid the tree canopy.

Table 65 Viewpoint 22 details

Item	Detail
Viewing range	Close-medium
Viewing distance	Approx 500m
Viewing direction	North-west
Viewing angle	Oblique
Viewing elevation	Level

9.22.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 66 Viewpoint 22 – Ashton Park/Athol Bay Lookout: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to Athol Bay and Ashton Park and people engaged in active outdoor recreation (Bradleys Head Walking Track)	Medium
Number of people	Generally moderate number of people visiting Athol Bay and Ashton Park and utilising Athol Wharf and Bradleys Head Walking Track	Medium
Social and cultural value	Prominent foreshore location (Athol Bay), in close proximity to Taronga Zoo Wharf, Athol Wharf, Athol Hall, Athol Beach and Bradleys Head Walking Track	High
Visual characteristics	Defining natural characteristics, foreshore location and views of Sydney Harbour contribute to scenic value	High
Sensitivity		High

9.22.4 Proposed view



Figure 56 Viewpoint 22: Ashton Park/Athol Bay Lookout (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.22.5 Magnitude of the nature of change proposed

Vertical pylon elements (P3) and cableway are visible as new, prominent features in the background of this view.

While P2 is visible, the majority of pylons and cableway do not protrude above the dominant canopy line. It is reasonable to assume that supplementary planting and ongoing maturation of existing vegetation will mitigate the verticality of the Sky Safari.

The proposal does not impede upon views across Athol Bay or toward Taronga Zoo.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 67 Viewpoint 22: Ashton Park/Athol Bay Lookout: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.22.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 68 Viewpoint 22: Ashton Park/Athol Bay Lookout: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.23 Viewpoint 23 – Bradleys Head Wharf

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.23.1 Existing view



Figure 57 Viewpoint 23: Bradleys Head Wharf (existing view)

Source: CMS Surveyors and Virtual Ideas

9.23.2 Existing View Description

This is a view across Sydney Harbour from Bradleys Head Wharf toward Athol Bay and Taronga Zoo.

Sydney Harbour, Bradleys head headland and water interface, and foreshore vegetation are dominant features of the foreground.

Athol Bay, Athol Wharf and associated maritime facilities define the centre of the midground of this view. Athol Wharf Road and Zoo buildings set amongst the densely vegetated Zoo headland occupy the upper midground. Taronga Zoo Wharf and the existing lower cable car terminal occupy the left corner of the midground.

Residential dwellings and high-rise apartments situated on the south Mosman foreshore are visible in the background. The sky is also significant feature of the background of this view.

Table 69 Viewpoint 23 details

Item	Detail
Viewing range	Medium
Viewing distance	Approx 1000m
Viewing direction	North-west
Viewing angle	Oblique
Viewing elevation	Level

9.23.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 70 Viewpoint 23 – Bradleys Head Wharf: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to Bradleys Head Wharf, people engaged in active outdoor recreation (Bradleys Head Walking Track), boat users and other transport modes utilising the Sydney Harbour	Medium-high
Number of people	Generally moderate flows of people utilising the Bradleys Head Walking Track and Wharf	Medium
Social and cultural value	Prominent foreshore location (Bradley’s Head Wharf), located on the Bradleys Head Walking Track in close proximity to Bradleys Head Ampitheatre, lighthouse and Military relics	High
Visual characteristics	Defining natural characteristics, foreshore location and views of Sydney Harbour contribute to scenic value	High
Sensitivity		High

9.23.4 Proposed view



Figure 58 *Viewpoint 23: Bradleys Head Wharf (proposed view)*

Source: CMS Surveyors and Virtual Ideas

9.23.5 Magnitude of the nature of change proposed

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

Majority of the eastern Lower Station façade will be visible in the left midground of this view. Pylon elements and the cableway are also visible across the Zoo landscape of the midground, positioned above existing tree canopy.

The proposal does not impede upon views to the Harbour in the foreground.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 71 Viewpoint 23: Bradleys Head Wharf: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.23.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 72 Viewpoint 23: Bradleys Head Wharf: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.24 Viewpoint 24 – Whiting Beach Road

This view has been selected to the proposal's impact on the adjoining residential area in Mosman.

9.24.1 Existing view



Figure 59 Viewpoint 24: Whiting Beach Road (existing view)

Source: CMS Surveyors and Virtual Ideas

9.24.2 Existing View Description

This is a view of the densely vegetated, north-western interface of the Zoo campus from the local streetscape.

The local streetscape, on-street car parking and nature strip occupy the foreground of this view.

In the midground, the heavily treed and densely vegetated landscape of the Zoo is dominant.

The sky is a key visual element of the background of this view. The sky in contrast with the vegetation in the midground, accentuates the densely vegetated nature of the Zoo's landscape.

Table 73 Viewpoint 24 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-east
Viewing angle	Oblique
Viewing elevation	Level

9.24.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 74 Viewpoint 24 – Whiting Beach Road: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Local residents, pedestrians, motorists, visitors to the local area	Low-medium
Number of people	Generally low-moderate pedestrian and traffic flows, peaking increasing in peak times	Medium
Social and cultural value	Established local residential area characterised by single and double storey detached houses surrounded by private landscaped gardens, footpaths on one side of the road, high levels of vegetation and tree canopy in the public and private realm	High
Visual characteristics	Defining natural characteristics and views to Taronga Zoo contribute to scenic value	Medium
Sensitivity		Medium

9.24.4 Proposed view



Figure 60 Viewpoint 24: Whiting Beach Road (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.24.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view and is unlikely to be visible from any location along Whiting Beach Road.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.25 Viewpoint 25 – Prince Albert Street

This view has been selected to the proposal's impact on the adjoining residential area in Mosman.

9.25.1 Existing view



Figure 61 Viewpoint 25: Prince Albert Street (existing view)

Source: CMS Surveyors and Virtual Ideas

9.25.2 Existing View Description

This is a view of the staff only entrance to the Zoo's multi-storey carpark across the local streetscape to the north of the Zoo.

The local streetscape and public infrastructure, nature strip and vegetation occupy the foreground of this view.

In the midground, the façade of the Zoo's multi-storey carpark, associated facilities and mature tree canopy are key visual elements.

The sky and surrounding vegetation occupy the background of this view. The sky in the background accentuates the linear profile of the carpark in the midground.

Table 75 Viewpoint 25 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South
Viewing angle	Oblique
Viewing elevation	Level

9.25.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 76 Viewpoint 25– Prince Albert Street: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo utilising the carpark, local residents, pedestrians, cyclists, motorists, visitors to the local area	Medium
Number of people	Generally moderate pedestrian and traffic flows, peaking increasing in peak times; Prince Albert Street attracts relatively high traffic volumes as a key throughfare	Medium-high
Social and cultural value	Prince Albert street functions as an established residential streetscape and key throughfare in the locality, providing connections to Taronga Zoo and surrounding residential areas	Medium
Visual characteristics	Defining natural characteristics and views to Taronga Zoo contribute to scenic value	Medium
Sensitivity		Medium

9.25.4 Proposed view



Figure 62 Viewpoint 25: Prince Albert Street (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.25.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view and is unlikely to be visible from any location along Prince Albert Street.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.26 Viewpoint 26 – Bradleys Head Road

This view has been selected to the proposal's impact on the adjoining residential area in Mosman.

9.26.1 Existing view



Figure 63 Viewpoint 26: Bradleys Head Road (existing view)

Source: CMS Surveyors and Virtual Ideas

9.26.2 Existing View Description

This is a view of the Zoo's north-eastern interface across the local residential streetscape.

Glimpses of residential dwellings and private landscaping, the local streetscape and roadway occupy the foreground of this view. The density of vegetation in the private and public realm is a notable element of this view.

The Zoo's heavily vegetated landscape dominates the midground of this view. Signage and wayfinding devices are also visible in the centre of the midground.

The sky is a key visual element of the background of this view.

Table 77 Viewpoint 26 details

Item	Detail
Viewing range	Close
Viewing distance	N/A
Viewing direction	South-west
Viewing angle	Oblique
Viewing elevation	Level

9.26.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 78 Viewpoint 26– Bradleys Head Road: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Zoo utilising the Main Entrance, local residents, pedestrians, cyclists, motorists, visitors to the local area	Medium
Number of people	Generally moderate pedestrian and traffic flows, peaking increasing in peak times; Bradleys Head Road attracts relatively high traffic volumes as a key throughfare	Medium-high
Social and cultural value	Bradleys Head Road functions as an established residential streetscape and key throughfare in the locality, providing connections to Taronga Zoo, Taronga Ferry Wharf and surrounding residential areas	Medium
Visual characteristics	Defining natural characteristics and views to Taronga Zoo contribute to scenic value	Medium
Sensitivity		Medium

9.26.4 Proposed view



Figure 64 *Viewpoint 26: Bradleys Head Road (proposed view)*

Source: CMS Surveyors and Virtual Ideas

9.26.5 Magnitude of the nature of change proposed

The Sky Safari is not visible from this view.

Overall, the visual impact is considered to constitute an imperceptible change that is ongoing but capable of being reversed.

No further assessment is required.

9.27 Viewpoint 27 – Sydney Opera House Northern Boardwalk

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.27.1 Existing view



Figure 65 Viewpoint 27: Sydney Opera House Northern Boardwalk (existing view)

Source: CMS Surveyors and Virtual Ideas

9.27.2 Existing View Description

This is a view across Sydney Harbour from Sydney Opera House Northern Boardwalk toward the headlands of the northern suburbs.

Sydney Harbour is the prominent feature of the foreground of this view.

The northern suburbs headlands and water interface define the midground of this view. Residential dwellings and high-rise apartments positioned within densely vegetated foreshore areas, dominate the left side of the midground. Cremorne Point Wharf, Robertson's Point Lighthouse, Taronga Zoo Wharf and Athol Wharf are partially visible in the midground.

The horizontal profile of the headland creates a strong contrast when viewed against the sky in the background.

Table 79 Viewpoint 27 details

Item	Detail
Viewing range	Long
Viewing distance	2500m
Viewing direction	North-east
Viewing angle	Oblique
Viewing elevation	Level

9.27.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 80 Viewpoint 27 – Sydney Opera House Northern Boardwalk: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to the Opera House and Harbour area, people engaged in active outdoor recreation (Northern Boardwalk)	Medium
Number of people	Generally moderate-high flows of people utilising the Northern Boardwalk and visiting the Opera house at any one given time	Medium-high
Social and cultural value	Iconic foreshore location (Opera House), established and heavily utilised public space, association with Sydney Harbour	High
Visual characteristics	Defining natural characteristics, iconic foreshore location and views of Sydney Harbour correlated high scenic value	High
Sensitivity		High

9.27.4 Proposed view



Figure 66 Viewpoint 27: Sydney Opera House Northern Boardwalk (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.27.5 Magnitude of the nature of change proposed

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

The verticality of the pylon elements is noticeable in this view. The proposed pylon elements and cableway exceed the height of dominant canopy line in the centre of the midground. It is reasonable to assume that supplementary planting and ongoing maturation of existing vegetation will mitigate the verticality of the Sky Safari overtime.

The proposal does not impede upon views to the Harbour in the foreground.

The impact is considered to constitute a minor change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 81 Viewpoint 27: Sydney Opera House Northern Boardwalk: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.27.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 82 Viewpoint 27: Sydney Opera House Northern Boardwalk: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.28 Viewpoint 28 – Yarranabbe Park, Darling Point

This view has been selected to the proposal's impact on the visual character of Sydney Harbour and its foreshore.

9.28.1 Existing view



Figure 67 Viewpoint 28: Yarranabbe Park, Darling Point (existing view)

Source: CMS Surveyors and Virtual Ideas

9.28.2 Existing View Description

This is a view across Sydney Harbour from Yarranabbe Park toward the headlands of the northern suburbs.

Sydney Harbour is the prominent feature of the foreground of this view.

The northern suburbs headlands and dense foreshore vegetation define the midground of this view. Glimpses of residential dwellings and high-rise apartments located on foreshore areas are visible in the left side of the midground. Zoo buildings clustered across the landscape are also visible through the trees in the centre of the midground. Robertson's Point Lighthouse, Sirius Cove, Athol Bay and Taronga Zoo Wharf are also partially visible.

The headland clearly delineates the midground and background. The skyline also emphasizes the linear profile of the headland in the background.

Table 83 Viewpoint 28 details

Item	Detail
Viewing range	Long
Viewing distance	Approx 2500m
Viewing direction	North
Viewing angle	Oblique
Viewing elevation	Level

9.28.3 Sensitivity to the nature of change proposed

The following table assesses the sensitivity of the viewpoint to nature of change proposed.

Table 84 Viewpoint 28 – Yarranabee Park, Darling Park: sensitivity of the nature of change proposed

Factor	Detail	Level
Type of people	Visitors to Yarranabee Park and Harbour area, people engaged in active outdoor recreation (Rushcutters Bay foreshore walk), local residents	Medium
Number of people	Generally moderate flows of people visiting Yarranabee Park and utilising the Rushcutters Bay foreshore walk) at any one given time	Medium-high
Social and cultural value	Prominent foreshore location (Yarranabee Park), well utilised public space, in close proximity to Rushcutters Bay Park and Yacht Club, association with Sydney Harbour	High
Visual characteristics	Defining natural characteristics, prominent foreshore location and views of Sydney Harbour correlated high scenic value	High
Sensitivity		High

9.28.4 Proposed view



Figure 68 Viewpoint 28: Yarranabbe Park, Darling Point (proposed view)

Source: CMS Surveyors and Virtual Ideas

9.28.5 Magnitude of the nature of change proposed

The Lower Station, pylon elements (P2, P3, P4 and P5) and cableway are visible in the midground of this view.

The front façade of the Lower Station is partially visible in the lower left centre of the midground. The verticality of the pylon elements are particularly noticeable in the centre midground of this view. The proposed pylon elements and cableway sit slightly above the height of the headland. The proposed development reads as part of the overall Zoo site and sits within the tree canopy. It is also reasonable to assume that the continued maturation of existing vegetation will mitigate the verticality of the Sky Safari overtime.

The proposal does not impede upon views to the Harbour in the foreground.

The impact is considered to constitute a moderate change over a restricted area that is ongoing but capable of being reversed.

The following table assess the magnitude of the nature of change proposed.

Table 85 Viewpoint 28: Yarranabee Park, Darling Point: magnitude of the nature of change proposed

		Duration and reversibility			
		Ongoing and irreversible	Ongoing capable of being reversed	Limited life (5 – 10 years)	Limited life (< 5 years)
Size and scale of change	Major change over wide area	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area, or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area; or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area; or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

9.28.6 Significance of visual impact

The following table assesses the significance of the nature of change proposed.

Table 86 Viewpoint 28: Yarranabee Park, Darling Point: significance of visual impact

		Magnitude				
		Dominant	Considerable	Noticeable	Perceptible	Imperceptible
Sensitivity	High	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

9.29 Summary of visual impact

The following table provides a summary of the visual impact for all viewpoints points assessed.

As shown in the table below, the combination of a moderate to high sensitivity to the nature of change proposed and a noticeable to considerable magnitude of change results in a moderate to high significance of visual impact. This is considered to satisfy the threshold for significant visual impact.

Further assessment regarding the proposal's consistency with the Statutory Planning Framework is provided in following sections. However, the table indicates that the while the proposal does give rise to significant visual impact, this impact is acceptable.

Table 87 Summary of visual impact

Viewpoint	Sensitivity to the nature of change proposed	Magnitude of the nature of change proposed	Significance of visual impact
Viewpoint 1: Main Entrance Building	High	N/A	N/A
Viewpoint 2: Upper Floor of Main Entrance	Medium	N/A	N/A
Viewpoint 3: Giraffe Enclosure	Medium	N/A	N/A
Viewpoint 4: Forest Adventure/area under construction	Medium	N/A	N/A
Viewpoint 5: Taronga Function Centre: top floor balcony	High	Noticeable	Moderate
Viewpoint 6: Taronga Function Centre: top floor northern bar deck	High	Noticeable	Moderate
Viewpoint 7: Taronga Function Centre – N'Gurra Lounge Balcony	High	Noticeable	Moderate
Viewpoint 8: Elephant Temple	Medium	N/A	N/A
Viewpoint 9: Concert Lawn	High	N/A	N/A
Viewpoint 10: Seal Pools from Rustic Bridge	High	N/A	N/A
Viewpoint 11: Rustic Bridge	Medium	N/A	N/A
Viewpoint 12: Southern side of Athol Wharf Road opposite Lower Entrance	High	N/A	N/A
Viewpoint 13: Southern side of Athol Wharf Road looking north/north east	Medium	N/A	N/A
Viewpoint 14: Lower Station near Taronga Zoo Terminal	High	Noticeable	Moderate
Viewpoint 15: Harbour View Lawn	Medium	N/A	N/A
Viewpoint 16: Free Flight Bird Amphitheatre	High	N/A	N/A
Viewpoint 17: Little Sirius Point	Medium	Noticeable	Low

Viewpoint	Sensitivity to the nature of change proposed	Magnitude of the nature of change proposed	Significance of visual impact
Viewpoint 18: Curraghbeena Point Lookout Reserve	Medium	Considerable	Moderate
Viewpoint 19: Taronga Zoo Ferry (Close Range)	High	Noticeable	Moderate
Viewpoint 20: Taronga Zoo Ferry (Medium Range)	High	Noticeable	Moderate
Viewpoint 21: Cremorne Reserve	Medium	Noticeable	Low
Viewpoint 22: Ashton Park/ Athol Bay Lookout	High	Noticeable	Moderate
Viewpoint 23: Bradleys Head Wharf	High	Noticeable	Moderate
Viewpoint 24: Whiting Beach Road	Medium	N/A	N/A
Viewpoint 25: Prince Albert Street	Medium	N/A	N/A
Viewpoint 26: Bradleys Head Road	Medium	N/A	N/A
Viewpoint 27: Sydney Opera House Northern Boardwalk, Sydney	High	Perceptible	Low
Viewpoint 28: Yarranabbe Park, Darling Point	High	Perceptible	Low
Overall visual impact	High	Noticeable	Moderate

9.30 Night-time views and lighting impact

The following section provides a high-level, qualitative assessment of lighting impact on the visual catchment. The creation of the following photomontages has been undertaken in collaboration with NDYLight Lighting consultants with each photomontage has been reviewed and determined as technically accurate to the extent that they are visualisations.

As can be expected from a prominent and heavily utilised public transport interchange where clear and easy navigation is critical, the Taronga Zoo Ferry Wharf and immediate surrounding area features considerable sources of artificial lighting. The existing lighting environment also includes lighting along the pedestrian promenade at the entrance to Taronga Zoo Ferry Wharf, Athol Wharf, the Lower entrance to the Zoo, within the Zoo landscape and streetlights along Athol Wharf Road. While the Harbour itself is not fully illuminated, it reflects aspects of this light, and lighting on the Lower North Shore is noticeable. The impact of lighting is most noticeable outside of daylight hours.

As artificial lighting is already existing in the foreshore landscape, it is not highly visually sensitive to additional artificial light sources. However, the proposal does include additional lighting sources which will contribute to reflected light and glow from the Taronga Zoo headland as demonstrated through the contrast between the existing and proposed viewpoints (**Figures 69-84**). As a result, care needs to be taken ensure any additional lighting both at the construction and operational stages is appropriate.

In terms of the operation stage, it is anticipated that the nature and impact of lighting for the proposal will be generally comparable to what already exists at Taronga Zoo Ferry Wharf, the site and surrounding area. It is acknowledged that events might occur at night aligning with the proposed operation hours and details. Any increased or enhanced lighting to support operation, navigation, wayfinding and user safety can be justified as a reasonable outcome that can be absorbed in the environment without unacceptable impact. No external lighting is proposed for the pylons and cable cars will be internally lit.

Considering the prominent foreshore location of the Taronga Zoo Headland, which is identified as a Scenic Protection Area and contains a number of heritage items including the Taronga Zoo Wharf, it is critical that proposed lighting be sited and designed to avoid diminishing the scenic quality of the Taronga Zoo headland. As demonstrated in the figures below, this is particularly relevant for the lighting proposed for the Lower Station, which due to its elevated location, the lighting has the potential to detract from the scenic amenity of the natural landscape and contribute to reflected light and glow from the Taronga Zoo headland. However, conventional lighting such as that which presently exists at Taronga Zoo Wharf is considered acceptable.

It is acknowledged that more intense lighting is likely to be required as part of construction activities. As with other construction impacts, due to its temporary nature, construction lighting can be acceptable subject to the design and implementation of appropriate mitigation measures. It is recommended that the measures include compliance with Australian Standard AS4282-2019 'Control of the obtrusive effects of outdoor lighting', which may include measures to reduce light spillage and glare through the placement and design of lighting. Subject to these mitigation measures, the likely impact of both operation construction phase lighting is considered to be reasonable.



Figure 69 *Viewpoint 17: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 70 *Viewpoint 17: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 71 **Viewpoint 18: Existing night-time view**

Source: NDYLight & Virtual Ideas



Figure 72 *Viewpoint 18: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 73 *Viewpoint 19: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 74 *Viewpoint 19: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 75 *Viewpoint 21: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 76 *Viewpoint 21: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 77 *Viewpoint 22: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 78 *Viewpoint 22: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 79 *Viewpoint 23: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 80 *Viewpoint 23: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 81 *Viewpoint 27: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 82 *Viewpoint 27: Proposed night-time view*

Source: NDYLight & Virtual Ideas



Figure 83 *Viewpoint 28: Existing night-time view*

Source: NDYLight & Virtual Ideas



Figure 84*Viewpoint 28: Proposed night-time view*

Source: NDYLight & Virtual Ideas

10.0 Assessment against the statutory planning framework

An assessment of the proposal against relevant parts of the Biodiversity and Conservation SEPP, MLEP 2012 and the Sydney Harbour DCP 2005 is provided in Table 90 below.

Table 88 Assessment against State Environmental Planning Policy (Biodiversity and Conservation) 2021

Part	Provision	Assessment	Consistency
6.28 General	<p>(2) Development consent must not be granted to development in the Foreshores and Waterways Area unless the consent authority is satisfied of the following:</p> <ul style="list-style-type: none"> (e) the unique visual qualities of the Foreshores and Waterways Area and its islands, foreshores and tributaries will be enhanced, protected or maintained, including views and vistas to and from: <ul style="list-style-type: none"> (i) the Foreshores and Waterways Area, and (ii) public places, landmarks and heritage items 	<p>It is acknowledged that in most of the views from within and outside the Zoo, elements of the proposal are generally visible.</p> <p>As evident in the photomontages above, the proposal does increase the bulk, form and scale of the existing Sky Safari. In most views, glimpses of the Lower Station, pylon elements (P2-P5) and cableway are visible through the tree canopy and existing headland vegetation.</p> <p>However, the proposal does not directly impede upon views to and from Sydney Harbour, foreshore areas or important land and water interfaces.</p>	Yes

Table 89 Assessment against Mosman Local Environmental Plan 2012

Part	Provision	Assessment	Consistency
1.2 Aims of plan	(e) To recognise, protect and enhance the natural, visual, environmental and heritage qualities of the scenic areas of Mosman and Sydney Harbour and to protect significant views to and from the Harbour	<p>As mentioned above, the proposal effectively responds to the natural, visual, environmental and heritage qualities of the Mosman foreshore and Sydney Harbour.</p> <p>Notably, the built form of the Lower station and materials proposed, better respond to the environmental and heritage context of the Zoo and creates a stronger visual integration between the Zoo and the natural landscape.</p> <p>With regard to significant views, the proposal does not directly impede upon views to and from the Harbour. Especially, from significant viewpoints outside the Zoo (ie. viewpoint 26 and 27), the proposal is not overly prominent and often not at all noticeable. As highlighted, views of the Sydney Harbour and CBD from significant viewpoints within the</p>	Yes

Part	Provision	Assessment	Consistency
		Zoo (ie. viewpoint 3,7,9 & 16) are not directly impacted by the Proposal.	
		When viewed from the Sydney Harbour specifically, the proposal is not overly prominent.	
	<i>(f) To retain views to and from water and foreshore reserves and public areas from streets and residential lots</i>	Elements of the proposal are partially visible from Sydney Harbour (ie. Taronga Ferry Wharf) and surrounding foreshore reserves, including Athol Bay, Cremorne Reserves and Curraghbeen Point. While disrupted, views to and from the Harbour and foreshore reserves will not fully be diminished by the proposal and direct views to Sydney Harbour and CBD will be retained.	Yes
		As assessed, the proposal is not visible from the local streetscape or surrounding residential areas to the north, concealed by the density of existing vegetation, tree canopy and built form.	
	<i>(g) To protect and conserve the natural, built and Aboriginal cultural heritage of Mosman</i>	Not applicable	Not applicable
	<i>(h) To protect, conserve and enhance the landform and vegetation, especially foreshores or bushland, in order to maintain the landscape amenity of Mosman</i>	In most views, the proposed pylon elements (P2-P5) and cableway sit slightly above the prominent canopy line and vegetation within the Bradleys Head headland. It is reasonable to assume that ongoing maturation of existing vegetation will mitigate the prominence of built elements overtime.	Yes
		As mentioned, the architectural design of the Sky Safari, specifically proposed station structures and materiality, is more contextually responsive to the environmental landscape of Mosman and better aligns with the storylines and focuses of the Zoo.	
2.3 Zone objectives and land use table	<i>To provide for special land uses that are not provided for in other zones</i>	Not applicable	Not applicable
	<i>To provide for sites with special natural characteristics that are not provided for in other zones</i>	Not applicable	Not applicable
	<i>To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land</i>	Not applicable	Not applicable

Part	Provision	Assessment	Consistency
6.4 Scenic protection	<i>(a) To recognise and protect the natural and visual environment of Mosman and Sydney Harbour</i>	See response to 1.2 above	Yes
	<i>(b) To reinforce the dominance of landscape over built form</i>	<p>The existing, lower cable car terminal building currently projects out from the hillside as a landmark. The architectural design of the Sky Safari, specifically the proposed station structures and materiality, is more contextually responsive to the environmental landscape of Mosman and better aligns with the storylines and focuses of the Zoo.</p> <p>Beyond reinforcing the dominance of the environmentally landscape, the proposal also appropriately acknowledges and integrates Indigenous connections to country. The proposed Sky Safari route, architectural design and materiality of the stations and meeting places have been informed through engagement with Indigenous Consultant and embody Indigenous stories of the peoples of the Sydney Basin and beyond.</p>	Yes
	<i>(c) To ensure development on land to which this clause applies is located and designed to minimise its visual impact on those environments</i>	See response to 6.28 above	Yes
	<i>(3) Development consent must not be granted to any development on land to which this clause applies unless the consent authority is satisfied that:</i> <ul style="list-style-type: none"> <i>(a) measures will be taken, including in relation to the location and design of the proposed development, to minimise the visual impact of the development to and from Sydney Harbour</i> <i>(b) the development will maintain the existing natural landscape and landform</i> 	See response to 6.28 above	Yes

Table 90 Assessment against Sydney Harbour Foreshores and Waterways Area Development Control Plan

Part	Provision	Assessment	Consistency
1.1 About the Development Control Plan,	<i>Ensuring that the scenic quality of the area is protected or enhanced</i>	The proposal has the potential to enhance the scenic amenity of the Taronga Zoo headland, Mosman Foreshore and Sydney	Yes

Part	Provision	Assessment	Consistency
Purpose of the Development Control Plan, Aims		<p>Harbour more broadly. The scenic value of the Zoo and surrounding foreshore area is attributed to its prominent foreshore location, defining natural characteristics, dense vegetation, and the significance of built and natural landscape.</p> <p>The structural forms of key elements of the Sky Safari, better respond to the environmental landscape and scenic Taronga Zoo. The Sky Safari will also advance wayfinding, and clearly mark and reinforce the identity of Taronga Zoo within the landscape and the Sydney Harbour.</p>	
1.1 About the Development Control Plan, Purpose of the Development Control Plan, Planning Principles	Development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores	See response to 6.28 above	Yes
1.4 Development Application Requirements	A statement of environmental effects (SEE) or an environmental impact statement (EIS) should address visual impact having regard to the landscape character of the area and nature of the proposal	Pursuant to Clause 2.10 of the Planning Systems SEPP, development control plans do not apply to SSD. Nevertheless, this VIA has been prepared as part of the EIS/SSDA package in accordance with the SEARs.	Yes
	Principally in areas where development is visible from the water, a photograph(s) of the site should be provided showing the site viewed from the waterway, shoreline or public vantage point. The photograph(s) should be taken at low tide, approximately 50 metres from the site, in good light with a 35 millimetre lens set at a 50 millimetre focal length	In locations where the proposal is visible from Sydney Harbour, a 50mm lens has been used to capture the viewpoint and produce an effective photomontage that ensures the closest representation of distance perception.	Yes
3.2 General Aims	<p>Minimise any significant impact on views and vistas from and to:</p> <ul style="list-style-type: none"> public places landmarks identified on the maps accompanying the DCP and heritage items 	<p>See response to 6.28</p> <p>In reference to Figure 10 and Figure 11, the proposal is visible from landmarks identified in the relevant maps accompanying the DCP, notably Robertsons Point Lighthouse and Sydney Opera House.</p>	Yes

Part	Provision	Assessment	Consistency
		While the Lower Station will be a new feature of the view toward the Zoo from Robertsons Point Light (viewpoint 20). The proposal, the cableway in particular, is partially visible from the Sydney Opera House Northern Boardwalk (viewpoint 26). The proposal does not have a significant impact on overall views/vistas as it does not impede upon views to the Harbour from either viewpoint, and it is reasonable to assume that the visual prominence of the Sky Safari will be mitigated by the maturation of existing headland vegetation overtime.	
	<i>Ensure it complements the scenic character of the area</i>	See response to 1.1 above	Yes
	<i>Protect the integrity of foreshores with rock outcrops, dramatic topography or distinctive visual features</i>	<p>The proposed design and layout of the Sky Safari, responds to and have been informed by the distinctive environmental and the visual features of the Zoo site and the foreshore more broadly. The proposed route is the same as the existing, retired line.</p> <p>The materiality and form of built elements are inspired by the distinctive land features and elements of the Cammeraigal land in which they stand.</p>	Yes
	<i>Provide a high quality of built and landscape design</i>	See response to 6.4(b) above	Yes
	<i>Contribute to the diverse character of the landscape</i>	See response to 6.4(b) above	Yes
3.3 Landscape Character Types	<p>ii. Statement of Character and Intent</p> <p><i>This landscape forms the entry to Sydney Harbour. Development should ensure that the natural features which characterise the entry to Sydney Harbour are maintained. It should be sited so that the view of these natural features and landmarks are preserved. Development should be designed to complement existing features so that the contrast between the built and natural environs is minimised. The intent in this area is to encourage development that:</i></p> <ul style="list-style-type: none"> <i>enhances the maritime and heritage significance of the</i> 	See response to 6.4(b) above	Yes

Part	Provision	Assessment	Consistency
	<p><i>Harbour through the protection of land uses that contribute to this character</i></p> <ul style="list-style-type: none"> • <i>maintains and preserves the dramatic natural entry into the Harbour</i> • <i>has a direct relationship with the entry to the Harbour</i> 		
	<p><i>iii. Performance Criteria</i></p> <p><i>Any development within this landscape is to satisfy the following criteria:</i></p> <ul style="list-style-type: none"> • <i>natural elements including cliffs, rock shelves and beaches are retained and views of these features are not obscured</i> • <i>native vegetation on clifflines, ridgelines and along the shoreline is protected</i> • <i>roof lines are below the tree canopy to maintain the prominence of the skyline of trees along the headlands</i> • <i>built elements have a direct relationship with the entry to the Harbour, port, defence, tourism or recreation</i> • <i>overall colours should match native vegetation and geological features as closely as possible with trim colours drawn from natural elements such as tree trunks and stone</i> 	<p>The proposal satisfies the following performance criteria. We acknowledge that certain structures of the proposal protrude above the prevailing tree canopy within the area. However, we argue that despite this, the proposal maintains the prominence of the skyline of the trees along the headlands for the following reasons:</p> <ul style="list-style-type: none"> • All reasonable steps have been taken to minimise the protrusion of the proposal above the dominant canopy line • The scale, form and layout of the cableway and pylon elements (P1-P6) reflect operational and structural requirements - reflects outcomes of Pylon Height Study • The proposal does not impede upon significant views from within the Zoo to the Sydney Harbour and CBD. Refer to photomontages for viewpoint 6,7 and 16 • The existing Ski Safari already protrudes above existing tree canopy and vegetation within the area. The proposal primarily intends to replace and upgrade existing, aging infrastructure. • It is reasonable to assume that supplementary planting and ongoing maturation of existing vegetation will mitigate the prominence of vertical elements overtime <p>Importantly, the proposal relates to special circumstances and is in public interest, enabling the continued operation and supported use of the Taronga Zoo Sky Safari within the Zoo campus.</p>	Yes

Part	Provision	Assessment	Consistency
Landscape Character Type 9	<p><i>ii. Statement of Character and Intent</i></p> <p><i>These areas are significant because they contain natural foreshores interspersed with more developed areas and provide a key feature and visual variety to the total landscape. The natural shoreline has significant visual features. However, it is also developed with swimming pools, retained edges and boat sheds. Sections of vegetated skyline have been preserved. The intent is to retain these natural features and only encourage development that is consistent with the scale, design and siting of that which exists.</i></p>	<p>We acknowledge that the proposal does alter the scale, design and siting of the existing Sky Safari. In most views, glimpses of the new stations, pylon elements (P2-P5) and cableway are visible to an extent, and protrude above the vegetated skyline in certain areas.</p> <p>However, we argue that despite this, the proposal effectively responds to the natural features of the Zoo landscape for the reasons outlined in the response to 3.3 (iii) above.</p> <p>Maintaining remnant bushland and tree retention, particularly along the foreshore, was a design consideration.</p>	Yes
	<p><i>iii. Performance Criteria</i></p> <p><i>Any development within this landscape is to satisfy the following criteria:</i></p> <ul style="list-style-type: none"> <i>it is sited so remaining rock outcrops, clifflines or vegetated shorelines are protected and not obscured</i> <i>it is sited to ensure that the continuous line of any natural feature is preserved and remains the dominant feature in the landscape</i> <i>it is sited and designed to maintain the vegetation cover on the upper slopes and ridgelines</i> <i>major points and entrances to the bays are preserved in their natural state</i> <i>existing character, natural, cultural and heritage features of the islands are retained</i> <i>colours should match native vegetation as closely as possible with trim colours drawn from natural elements such as tree trunks and stone</i> 	See response to 3.3 (iii).	Yes

Part	Provision	Assessment	Consistency
5.3 Siting of Buildings and Structures	<p><i>The following criteria should be observed when siting buildings and structures:</i></p> <ul style="list-style-type: none"> <i>where there is existing native vegetation, buildings should be set back from this vegetation to avoid disturbing it</i> <i>buildings should address the waterway</i> <i>buildings should not obstruct views and vistas from public places to the waterway</i> <i>buildings should not obstruct views of landmarks and features identified on the maps accompanying this DCP</i> <i>where there are cliffs or steep slopes, buildings should be sited on the top of the cliff or rise rather than on the flat land at the foreshore</i> <p><i>Where a council has not set a foreshore building line, buildings should be sited having regard to:</i></p> <ul style="list-style-type: none"> <i>the above criteria</i> <i>minimising loss of views</i> <i>the siting of the buildings on adjoining properties</i> 	<p>All reasonable steps have been taken to minimise the disruption of existing native vegetation.</p> <p>For example, an arborist conducted a topographical survey of significant trees and native vegetation on the route and an impact study was produced. The arborist report has informed the location of the pylons (P1-P6) and stations, and overall route layout. The proposed route retains the existing route of the retired Sky Safari and has been carefully located in order to minimise impact on remnant bushland, existing trees and the archaeological and built heritage values of the Zoo.</p> <p>We acknowledge that certain structures of the proposal protrude above the prevailing tree canopy within the area. However, as assessed above, we argue that the proposal effectively considers and responds to the environmental landscape.</p> <p>As shown in the views from the Taronga Zoo Ferry (viewpoint 19 and viewpoint 20), the Lower Station which abuts Taronga Zoo Ferry Wharf, appropriately addresses Sydney Harbour.</p> <p>In reference to Figure 10 and Figure 11, the proposal is visible from landmarks identified in the relevant maps accompanying the DCP, however it does not directly impede upon significant views to and from Sydney Harbour.</p>	Yes
5.4 Built Form	<p><i>Buildings and other structures should generally be of a sympathetic design to their surroundings; well designed contrasts will be considered where they enhance the scene. Many councils have development controls governing built form and the heights of buildings. The following guidelines are designed to reinforce the local requirements:</i></p> <ul style="list-style-type: none"> <i>where buildings would be of a contrasting scale or design to existing buildings, care will be needed to ensure that this contrast would enhance the setting</i> 	<p>As addressed, while the proposal does increase the scale of the existing Sky Safari, we note that existing built elements already protrude above existing tree canopy and vegetation within the area.</p> <p>The proposal will enhance the identity of the Zoo within the landscape and the Sydney Harbour, advance wayfinding and enable the Zoo to be reconceived as a focal point of the Bradleys Head headland.</p> <p>New pylons (P1-P6), stations and other associated structures are strategically positioned within the landscape. All built elements are softened by the extensive coverage of existing vegetation and tree canopy within the Zoo landscape.</p>	Yes

Part	Provision	Assessment	Consistency
	<ul style="list-style-type: none"> • <i>where undeveloped ridgelines occur, buildings should not break these unless they have a backdrop of trees</i> • <i>while no shapes are intrinsically unacceptable, rectangular boxy shapes with flat or skillion roofs usually do not harmonise with their surroundings. It is preferable to break up facades and roof lines into smaller elements and to use pitched roofs</i> • <i>walls and fences should be kept low enough to allow views of private gardens from the waterway</i> • <i>bright lighting and especially floodlighting which reflects on the water, can cause problems with night navigation and should be avoided. External lights should be directed downward, away from the water. Australian Standards AS/NZ1158.3: 1999 Pedestrian Area (Category P) Lighting and AS4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting should be observed</i> • <i>except where otherwise required for navigation purposes, all lights on structures shall be shielded seawards and positioned to avoid disturbance to neighbouring properties;</i> • <i>use of reflective materials is minimised and the relevant provisions of the Building Code of Australia are satisfied</i> • <i>colours should be sympathetic with their surrounds and consistent with the colour criteria, where specified, for particular landscape character types in Part 3 of this DCP</i> 	<p>All proposed built elements apply curved roof elements, finishes and materials that better respond to and align with the environmental landscape, design criteria specified for landscape character type 9 outlined in the DCP, and Indigenous connections to country.</p> <p>The proposal does not impede upon existing views to the Zoo's extensive tree canopy, vegetation and thickly vegetated foreshore area.</p> <p>This VIA provides a high-level, qualitative assessment of lighting impact on the visual catchment from key viewpoints. While proposed additional lighting will contribute to reflected light and glow from the Taronga Zoo headland, steps have been taken to ensure the proposed artificial lighting avoids disturbance to neighbouring properties, does not impede upon night navigation or detract from the visual amenity of the natural landscape. Overall, the likely impact of the proposal's operation and construction phase lighting is considered to be reasonable.</p> <p>We acknowledge that in most views, glimpses of the new stations, pylon elements (P2-P5) and cableway are visible to an extent. However, the proposal does not directly impede upon views to and from key landmarks or heritage items as evidenced by photomontages for viewpoint 7, 18, 21 and 26.</p> <p>The proposal effectively responds to the natural features of the Zoo landscape for the reasons outlined in the response to 3.3 (iii).</p>	

Part	Provision	Assessment	Consistency
	<ul style="list-style-type: none"> the cumulative visual impact of a number of built elements on a single lot should be mitigated through bands of vegetation and by articulating walls and using smaller elements the cumulative impact of development along the foreshore is considered having regard to preserving views of special natural features, landmarks or heritage items 		

Table 91 Assessment against Taronga Zoo Masterplan: Urban Design Principles And Visual Analysis

Part	Provision	Assessment	Consistency
2.4 Protection of the unique visual qualities of the harbour, and local context, objectives	<i>i. To protect views to the zoo from the harbour: to minimise visual intrusions on the typically “well-vegetated view” [the predominated tree canopy] of the zoo, as viewed from the harbour</i>	<p>All reasonable steps have been taken to minimise visual intrusions to views of the Zoo’s predominant tree canopy, as viewed from the harbour.</p> <p>We acknowledge that certain structures of the proposal protrude above the prevailing tree canopy within the area. However, as assessed above, the proposal does not drastically impact upon the typically “well-vegetated view” of the Zoo headland, as evidenced by the photomontage for viewpoint 19, 26 and 27.</p> <p>See response to 6.28 for more detail.</p>	Yes
	<i>ii. To protect views to the harbour from the zoo: to maintain cross zoo views to the harbour, typically concentrated in the south-east and north-west gullies; and retain the important cultural views of animals with the unique harbour and city backdrops</i>	<p>The proposal does not directly impede upon significant views from within the Zoo to the Sydney Harbour and CBD. Refer to photomontages for viewpoints 6,7 and 15.</p> <p>Cross zoo views to the harbour are preserved, as evidenced by photomontages for viewpoints 9 & 16.</p> <p>Important cultural views across animal enclosures and exhibits are fully retained, as highlighted in photomontages for viewpoints 3, 8 and 10.</p>	Yes
	<i>i. Views to the zoo from the harbour: preserve the present view of “green vegetation” from the harbour, through minimising built form protrusions through the tree canopy, particularly on the prominent or exposed ridges; preserve the natural bushland character of the foreshore, responding to specifically to the characters of the three different foreshore bushland areas: the area between Athol Wharf Road and the Whaling Station beach; the area between the Zoo Wharf and Little Sirius Point, extending south down to Whiting Beach, and defined to the north by the defined Taronga Zoological Gardens wall; and the area</i>	See response to 3.3(iii), 5.4 and 2.4(i) above.	Yes

Part	Provision	Assessment	Consistency
	<i>between Little Sirius Point and the Rickard Avenue steps, addressing the contained Little Sirius Cove</i>		
	<i>ii. Views to the harbour from the zoo: maintain views to the harbour, particularly as concentrated through the two primary gullies, through minimising intrusions to these view corridors, and where appropriate, define these views through vegetation, and low built form elements [lower than the predominant tree canopy]; maintain the ridge-point panoramic views to the harbour through retaining low vegetation and minimising built form intrusions; and continue to concentrate views at key public open spaces</i>	<p>All reasonable steps have been taken to minimise built form and visual intrusions to view corridors of the Harbour from the Zoo.</p> <p>We acknowledge that certain structures of the proposal protrude above the prevailing tree canopy within the area.</p> <p>See response to 3.3 (iii) and 2.4 (ii) above for more detail.</p>	Yes
	<i>iii. Views to the zoo from the surrounding locality, and views from the surrounding locality to the zoo: ensure that development at the edge of the zoo addresses public streets, and reflects the character of the local built form, particularly in terms of height and setback; and provide clear views to zoo entry points; and minimise views to carparking associated with the zoo from public streets</i>	Views to the proposal from the residential streets to the north of the site are primarily mitigated by the existing vegetation, tree canopy and existing buildings. This is evidenced by photomontages for viewpoints 23, 24 and 25.	Yes
	<i>iv. Staging of development is to be managed such that impact on the visual appearance of the zoo, particularly as viewed from the harbour, is minimised</i>	Not applicable	Not applicable

11.0 Discussion of key issues

11.1 Integration with the landscape when seen from outside the zoo

It is acknowledged that the proposal will result in a change to the Zoo's visual setting when seen from outside the Zoo. All reasonable steps have been taken to ensure the proposal effectively integrates with the landscape of the Zoo and to minimise protrusion to the Zoo's dominant canopy line to ensure views from outside the Zoo are not adversely impacted.

The existing Ski Safari already protrudes above existing tree canopy and vegetation within the Zoo campus and Bradleys Head headland. It is also currently visible from Sydney Harbour as well as public spaces, landmarks and surrounding foreshore areas. The proposal, including the cableway, new pylons (P1-P6) and Lower Station, do exceed the existing height, bulk and form of the current Sky Safari and do protrude above the dominant tree line in certain areas of the Zoo landscape. The Top Station is not perceptible from viewpoints outside the zoo. It is necessary to consider that the scale, form and layout of the cableway and pylon elements reflect operational and structural requirements, and as such are unavoidable in service of the proposal's current intent. Importantly, the proposal relates to special circumstances that are in the public interest, enabling the continued operation and supported use of the Taronga Zoo Sky Safari within the Zoo campus.

It is acknowledged that elements of the proposal will function as new and relatively prominent features of few close-medium range views from certain foreshore areas, key public spaces and landmarks outside the Zoo. This is evidenced by photomontages for viewpoints 17-21. The thickly vegetated landscape of the foreshore mitigates the visual impact of the proposal when seen from significant viewpoints outside the Zoo from Sydney Harbour, and predominately conceals the proposal from view. This lack of visual impact is evidenced by photomontages for viewpoints 27 and 28.

The proposal will be effectively integrated within the 'well-vegetated' Zoo landscape and will not be a "visually dominant" feature seen from outside the Zoo due to the following additional reasons:

- The existing, lower cable car terminal building currently projects out from the hillside as a landmark. The proposed design for the Lower Station which abuts Taronga Zoo Ferry Wharf, appropriately addresses Sydney Harbour.
- The Sky Safari route follows the route of the existing, retired Sky Safari to reduce impacts on animal exhibits as well as mature vegetation and tree canopy across the site.
- The new Sky Safari will clearly mark and reinforce the identity of Taronga Zoo within the landscape and the Sydney Harbour.
- The design and structural forms of the stations and materiality, better responds to the environmental and heritage context of the Zoo and creates a stronger visual integration between the Zoo and the surrounding foreshore landscape.
- It is reasonable to assume that supplementary planting and ongoing maturation of existing vegetation will mitigate the prominence of vertical elements in views from outside the Zoo overtime.

11.2 Integration with the landscape when seen from inside the zoo

It is acknowledged that the proposal will impact the Zoo's visual character and certain internal view corridors.

However, the nature of change does not result in a substantial departure from the pattern of the Zoo's built or natural landscape. As mentioned, the existing Ski Safari is a key visual feature and landmark intrinsic to the Zoo campus. The retired Sky Safari, including the existing cableway and pylon elements, already protrude above the dominant canopy line and the lower terminal projects out from the hillside of the southern interface as a landmark.

While elements of the proposal are prominent when viewed against their immediate context, this is not the nature of most internal views within the zoo. Importantly, the proposal retains important cultural views of

heritage items and animal enclosures and exhibits with the unique harbour and city backdrops within the Zoo. This is evidenced by the photomontages for viewpoints 3, 8 and 10.

As shown in most of the photomontages, the largest change to the Zoo landscape is due to the proposed heights of the pylons and cableway. As discussed, the scale and form of the cableway and pylon elements reflect operational and structural requirements, and as such are unavoidable in service of the proposal's current intent. While people would be aware of the scale of the proposal, its use is in the public interest and will enable the continued operation of the high-valued Taronga Zoo Sky Safari. The Top Station is not perceptible and does not interrupt the existing architectural profile of the Main Entrance Building when viewed against the skyline and existing vegetation in the public domain. This is shown in the photomontages for viewpoint 1.

While the proposal will be new visual feature of the Zoo, we argue that the proposal will preserve and enhance the natural visual character as experienced within the Zoo due to the following additional reasons:

- All reasonable steps have been taken to ensure the proposal effectively integrates with the landscape of the Zoo and to minimise protrusion to the Zoo's dominant canopy line to ensure views inside the Zoo are not adversely impacted.
- The proposed route design and layout of the Sky Safari retains the existing route, and has been informed by the distinctive environmental and the landscape features of the site.
- The forms, finishes and materiality of built elements are inspired by the distinctive landscape features and natural elements of the site.
- The design and forms of the stations and materiality proposed, better responds to the environmental and heritage context of the Zoo and creates a stronger visual integration with the natural landscape.
- Beyond reinforcing the Identity of the environmental landscape, the proposal also appropriately acknowledges and integrates Indigenous connections to country. The proposed Sky Safari route, architectural design and materiality of the stations and meeting places have been informed through engagement with Indigenous Consultant and embody Indigenous stories of the peoples of the Sydney Basin and beyond.

11.3 Interruption or blocking of high value views from the zoo

As can be seen from the photomontages analysed above, the proposal will not block significant views obtained from the Zoo to elements in the landscape of natural or cultural significance. Critically, the proposal will not directly impact significant views from the Zoo to Sydney Harbour, Sydney CBD, Harbour Bridge and the Opera House.

This is evidenced by the assessment of the following views from key meeting places and animal exhibits within the Zoo in particular:

- Viewpoint 4 – Forest Adventure
- Viewpoint 3 – Giraffe Enclosure
- Viewpoint 6 - Taronga Function Centre
- Viewpoint 9 – Concert Lawn
- Viewpoint 15 - Harbour View Lawn
- Viewpoint 16 – Free Flight Bird Amphitheatre

It is acknowledged that the proposal will partially disrupt internal view corridors within the Zoo and views to parts of the Sky. Overall, the proposal only blocks only a small amount of sky relative to that which is present in most views.

11.4 Impact on private property in Mosman

As surrounding residential areas are more sensitive to the nature of change, this VIA has considered impact on private views obtained from the public domain.

As determined by the assessment of photomontages, the Sky Safari is not visible from most residential areas to the north/north-east of the site. The established tree canopy and thickly vegetated landscape of the Zoo campus

mitigates the visual impact of the proposal on the surrounding private properties and the local street network more broadly. Views to the proposal are also mitigated by existing built elements and vegetation within the surrounding landscape, which predominately conceal the proposal from view.

It is acknowledged that elements of the proposal, the Lower Station and vertical pylon elements (P2-P5) in particular, will be partially visible from certain foreshore residential areas in Mosman and Cremorne Point located to the west of the site. This is demonstrated by the potential view obtained from Curraghbeena Point Lookout Reserve (viewpoint 18). While visible, all built elements are softened by the extensive coverage of existing vegetation and tree canopy within the Zoo landscape. It is also reasonable to assume that supplementary planting and ongoing maturation of existing vegetation will mitigate the prominence of vertical elements overtime.

12.0 Mitigation measures

There are three broad types of mitigation measures:

1. Avoid
2. Minimise
3. Offset

This is generally consistent with the principles for the management of environmental impacts in the GLVIA3 (part 3.37).

Under the GLVIA3 (part 4.21), there are a number of stages in the development process when mitigation measures should be considered. Of relevance to this proposal are the following:

- **Primary measures:** considered as part of design development and refinement
- **Secondary measures:** considered as part of conditioning a development consent

As has been outlined in the EIS, the proposal has been subject to a comprehensive and detailed design process, including multiple State Design Review Panel sessions, with considerable reductions being made to its original scope to reduce visual impact.

This has resulted in the incorporation of a number of primary measures appropriate to a SSDA (e.g. siting, height and massing/form measures) that seek to avoid and minimise any potential significant adverse visual impacts.

As has been determined by this VIA, the incorporation of these mitigation measures have been critical to the determination of acceptable visual impact.

On this basis, it is not considered necessary to make further fundamental or otherwise large-scale amendments to the proposal in its current form to satisfactorily manage visual impact.

Nonetheless, it is recommended that further investigation be undertaken and secondary measures be considered as part of more detailed design development. These include:

- Further investigation of materiality and colours that facilitate 'blending in' with the natural environment of Taronga Zoo e.g. non-reflective materials and natural colours
- Screening storage, motor units and other similar infrastructure from view

13.0 Conclusion

A key question to be addressed by this VIA was whether the SSDA proposal, and in particular the scale of new Sky Safari built form, gives rise to significant, unacceptable visual impact on views from the Zoo to outside the Zoo to Sydney Harbour and its environs.

The combination of a moderate to high sensitivity to the nature of change proposed and a noticeable to considerable magnitude of change results in a moderate to high significance of visual impact. This is considered to satisfy the threshold for significant visual impact.

Considering the proposal's consistency with the Statutory Planning Framework and the reasons outlined in the discussion above, this VIA has concluded that while it gives rise to significant visual impact, this impact is acceptable.

Overall, it is considered that the proposal has an acceptable visual impact for the following reasons:

- Having been present on the site in a similar nature to that now proposed for the past 35 years, the Sky Safari is a well-established and valued part of the zoo landscape. Given this and the typical useable lifespan of such structures, it is reasonable to expect continuation of a Sky Safari within the site
- While having a highly landscaped setting, the zoo itself is also inherently an urban zoo. This is evidenced by a number of buildings and structures being visible from locations outside the zoo, in particular the Function Centre, Wildlife Retreat and ferry terminal. It is also often seen, in particular from locations on the southern Sydney Harbour foreshore such as the Opera House, within the context of the highly developed lower North Shore west of Little Sirius Cove
- The proposal has been subject to a comprehensive and detailed design process, including multiple State Design Review Panel sessions, with considerable reductions being made to its original scope to reduce visual impact
- Remaining incursion of pylons (P2-P5) above the prevailing tree canopy line are necessary for structural safety and operational reasons, and as such are unavoidable in service of the proposal's current intent
- The proposed built form and curved architectural features of the Lower Station will further reduce visibility of the proposal, in particular when seen from more distant locations
- Where visible, it is reasonable to assume that over time supplementary planting and ongoing maturation of existing vegetation will mitigate the prominence of vertical elements in views from outside the Zoo overtime

- The likely impact of the proposal's operation and construction phase lighting is considered to be reasonable. Steps have been taken to ensure the proposed artificial lighting avoids disturbance to neighbouring properties, does not impede upon night navigation or detract from the visual amenity of the natural landscape
- The proposal is consistent with the visual impact provisions of the Statutory Planning Framework

While the visual impact is assessed as being acceptable, it is nonetheless recommended that further investigation be undertaken and mitigation measures be considered as part of subsequent planning processes. These include:

- Further investigation of materiality and colours that facilitate 'blending in' with the natural environment of Taronga Zoo e.g. non-reflective materials and natural colours
- Screening storage, motor units and other similar infrastructure from view

On this basis, the conclusion of this VIA is that the proposal can be supported on the grounds of visual impact.

Appendix A Visual evidence base (Virtual Ideas and CMS Surveyors)