ETHOS URBAN

Consistency with Clause 228 of the *Environmental Planning and Assessment Regulation 2000* – REVISED EXHIBITION DRAFT

Factor

(a) any environmental impact on a community

Gap Bluff Hospitality is acutely aware of the perceived impacts of the proposal on the surrounding community. In response to concerns raised by the community during the exhibition of the original proposal in 2015, the revised activity has sought to address the issues raised by the general public, community groups and agencies by:

- Reducing the volume of patrons and the associated traffic, parking and noise concerns. The capacity of the venues is now consistent with the previous use of the site.
- Reducing the scale of the Armoury building to a single storey building, resulting in an associated reduction in capacity and reduced visual impacts.
- Changing the use of Constables Cottage to short-stay accommodation, resulting in improved privacy, acoustic, traffic and parking outcomes.
- Improving public access to the National Park through the introduction of an Open Day and complementary use of the Armoury or Officers Mess for community groups on up to 10 occasions a year.
- Resolving concerns around heritage interpretation and landscaping.

It is anticipated that the revised activity will result in positive impacts for the local community, the Eastern suburbs community and the wider Sydney Visitor Economy. The proposal will:

- Transform Gap Bluff into a function precinct which contributes to the vibrancy and vitality of the Eastern Suburbs and the wider Sydney Visitor Economy;
- Enable Gap Bluff to prosper and become an increased asset to the NPWS and NSW Government, under the care and maintenance of Gap Bluff Hospitality.
- Enable a range of works to address the current deterioration of the Gap Bluff buildings, thereby ensuring the conservation of these highly significant heritage buildings for future generations.
- Sensitively restore the existing buildings in accordance with the Conservation Management Plan to highlight and celebrate the historic contribution of the Gap Bluff properties to the settlement of Sydney.
- Enable the adaptive reuse of the buildings, incorporating exemplary designs that respect the heritage significance of the buildings.
- Maintain full public access to the landscape in and around both precincts.
- Improve public access to the buildings (which are currently inaccessible to the public).
- Improve the landscaping and public domain surrounding the buildings.
- Incorporate a number of environmentally sustainable development measures.
- Incorporate a range of mitigation measures that minimise impacts on the surrounding environment and community.

Consideration of the proposal's impacts on flora and fauna communities is provided below.

Factor
(b) any transformation of a locality The proposed activity involves the adaptive reuse and renovation of existing buildings – no new buildings are proposed. As such, the buildings are sited as they currently exist within the park setting. Their location is not proposed to be changed. Further, public access to both the Gap Bluff and South Head, Camp Cove and Green Point precincts is proposed to be maintained, and access to the existing buildings will be improved as a result of the proposal, given that the buildings currently have limited accessibility to the public. The revised proposal, which seeks to maintain the existing scale of the Armoury Building and use Constables Cottage for short-term accommodation rather than a restaurant / café use, will ensure that the proposed development is consistent with the existing character of the locality. The revised proposal will also ensure that the development does not result in any negative transformation of the locality, both in terms of built form character, the parkland setting of the buildings, or the predominantly residential character of the surrounding area. Notwithstanding the intent to maintain the existing character of the locality and avoid any adverse amenity impacts on the surrounding community, the proposal does seek to positively transform Gap Bluff by creating a world class function precinct which contributes to the vibrancy and vitality of the Eastern Suburbs and the wider Sydney Visitor Economy. In doing so, the proposed works will address the current deterioration of the Gap Bluff buildings, thereby ensuring the conservation of these highly significant heritage buildings for future generations. By sensitively restoring the existing buildings in accordance with the Conservation Management Plan, the proposal will highlight and celebrate the historic contribution of the Gap Bluff properties to the settlement of Sydney.
(c) any environmental impact on the ecosystems of the locality The proposal is for the adaptive reuse and renovation of existing buildings, with only minor works outside the footprint of some buildings. The proposal will therefore have a minimal impact on the biodiversity or ecological integrity of the Sydney Harbour National Park. A detailed assessment of the impacts on potential threatened flora and fauna species is provided below.
(d) any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality Each element of the revised activity, whether considered alone or cumulatively, will not alter the cultural or landscape character of the park. The works are largely contained within the existing footprints of the individual buildings. Where minor additions are proposed, they have been designed to be sympathetic to the site's landscape context. With respect to heritage, the works to each building have been designed in close consultation with the project's heritage consultant, and it has been confirmed that the works will not have any significant adverse impacts on the heritage significance of the precinct. Further, the proposed activity is consistent with the Plan of Management, and so represents a well-planned, strategic and deliberate decision about a park's future. In line with the Plan of Management, the proposed activity represents the exemplary adaptive re-use of the Gap Bluff Precinct, which will provide increased opportunities for visitors to access and appreciate the park. Consistent with the aims for the Camp Cove and Green Point precinct, key buildings such as Constables Cottage and Green Point Cottage will be conserved and made accessible to the public. The activity will also maintain traditional passive recreation opportunities, while enriching the precinct with new tourism opportunities which will allow a greater diversity of experiences for visitors. With respect to aesthetic impacts, the proposed activity involves the adaptive reuse of, and renovations to, existing buildings – no new buildings are proposed. As such, the buildings are sited as they currently exist within the park setting, and their location is not proposed to be changed. Further, public access to both precincts is proposed to be maintained, and access to the existing buildings will be improved as a result of the proposal, given that the buildings currently have limited accessibility to the public. Whilst the Armoury was originally

Factor

proposed as a two storey building, the scale of the building has been reduced to respond to submissions raised during the public exhibition period. Under the revised proposal, the Armoury, Gap Bluff Cottage, 33 Cliff Street, Constables Cottage and Green Point Cottage will all remain as single storey buildings. The Officers Mess will remain a two storey building, as currently exists; this is not proposed to be changed due to the heritage significance of the building.

A photomontage showing the revised proposal for the Armoury is shown at **Figure 1** below.

Figure 1 – Revised Armoury massing

Source: RF Architects

Before and after photomontages of the Armoury, as seen from the Harbour, are shown below at **Figure 2**. A view of the Armoury at night is provided at **Figure 3**. The images demonstrate that the visual impacts associated with the revised proposal are minimal. The renovated Armoury building sits within the maximum height of the existing building. The deletion of the second storey means that visual impacts during the day are generally consistent with existing views of the building. Further, recessive colours and natural materials have been selected to ensure that the building sits comfortably in the existing landscaped setting. The existing vegetation will continue to be the dominant feature when the site is viewed from the Harbour.

Factor

Figure 2 – Before (above) and after (below) photomontages of proposed Armoury (building location highlighted in red)
Source: RF Architects

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Whilst the proposal would be visible at night time from the Harbour, most views would be very distant, and the amount of light emitted will not be stronger or more expansive than any of the other light sources visible in the area.

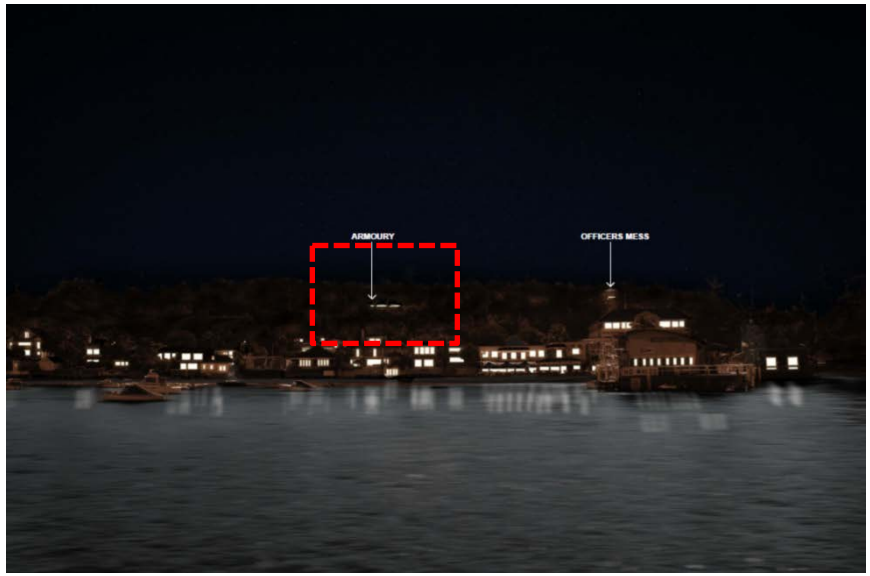

Figure 3– The proposed Armoury at night (building highlighted in red)

Source: RF Architects

With respect to the visual impact of overflow parking, it is noted that the overflow parking will only be utilised during peak periods of operation - the access road could provide overflow parking for approximately 30 additional cars. However, this area is visually shielded from the main function areas and will not result in any significant or permanent visual impacts. Similarly, whilst the provision of parking on existing hardstand areas in front of the Armoury would result in some impact on outlook from the site, any impact would be temporary, and would not impact the use of the park.

As demonstrated above, the proposed activity will not result in any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a park.

(e) any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations

The revised activity has been carefully considered to ensure that there is no impact on the aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance of the site**.**

Factor

The aesthetic impacts of the revised activity are assessed above. The works are largely contained within the existing footprints of the individual buildings. Where minor additions are proposed, they have been designed to be sympathetic to the site's landscape context. Significantly, the scale of Armoury has been reduced to ensure that the development is in keeping with the site's existing parkland setting. Further, the revised proposal for Constables Cottage will result in fewer alterations to the fabric of the building, with the proposed works now contained within the existing building footprint and limited to upgrades of spaces which have little heritage significance. Each element of the revised activity, whether considered alone or cumulatively, will not alter the cultural or landscape character of the park.

The reduction in scale of the Armoury also means that there is no longer any need to excavate into the adjacent rockface, reducing any potential archaeological impacts. Whilst some excavation is required to accommodate the proposed garage at 33 Cliff Street and to install a lift in the Officers Mess, it is not envisaged that there would be any significant impacts on the site's archaeological potential.

A key driver of the proposal is to conserve the site's heritage significant building, and prevent them from falling into further disrepair. The activity will facilitate the conservation of the Officers Mess and Constables Cottage, both of which are of heritage significance and warrant conservation. The proposed activity will prevent these buildings, and the other buildings which form part of this proposal, from falling further into disrepair, and will open them to the public for tourism, education and general recreation purposes. The introduction of commercially viable uses will also enable the ongoing upgrade and conservation of the National Park.

As noted above, the proposal is consistent with the Plan of Management and will provide increased opportunities for visitors to access and appreciate the site. The activity will also maintain traditional passive recreation opportunities, while enriching the precinct with new tourism opportunities which will allow a greater diversity of experiences for visitors.

(f) any impact on the habitat of protected fauna (within the meaning of the National Parks and Wildlife Act 1974)

Ecological Consultants Australia assessed the site in 2016 and 2017. Searches were made for scats, tracks, hollows and other habitats. Searches were done for listed species / populations. A camera trap was set on site and no fauna was recorded. Anabat was conducted for 2 hours at and after dusk, at night spotlighting was also done, along with call play-back for large forest owls, gliders and ring-tails with the owl call splay last.

During these site visits notes and photos were taken of the important fauna and fauna habitat present. Bionet was also used to determine the threatened fauna and endangered populations, which have been recorded within 10km of the site since 1980.

In summary there is a diversity of fauna habitats including highly modified landscapes (turf) to bushland. Habitat features include:

- Sandstone, outcrops, overhangs and waterfalls (ephemeral);
- Trees with small hollows and flaking barks;
- Dense leaf litter;
- Thick vegetation;
- Buildings; and
- A variety of vegetation types.

A total of 20 fauna species were observed within the study area, including 14 birds, two mammals and one reptile (refer to **Table 1**). Two species of threatened fauna were recorded

Factor

within the study area including the Grey-Headed Flying Fox (*Pteropus poliocephalus*) and an unidentified Microbat (*Microchiroptera).*

Class	Scientific name	Common name	Native/Exotic	Observation Type	Date of Observation
Birds	*Malurus cyaneus*	Superb Fairy Wren	Native	Heard	4/6/2015
				Heard	26/06/2017
Birds	*Rhipidura leucophrys*	Willie Wagtail	Native	Visual	4/6/2015
Birds	*Sericornis frontalis*	White-browed Scrubwren	Native	Visual	4/6/2015
Birds	*Trichoglossus moluccanus*	Rainbow Lorikeet	Native	Visual	4/6/2015
				Visual	26/06/2017
Birds	*Trichoglossus chlorolepidotus*	Scaly-breasted Lorikeet	Native	Visual	4/6/2015

Factor

Class	Scientific name	Common name	Native/Exotic	Observation Type	Date of Observation
Birds	*Daclelo novaeguineae*	Laughing Kookaburra	Native	Heard	4/6/2015
				Heard	26/06/2017
Birds	*Cracticus tibicen*	Magpie	Native	Visual	4/6/2015
Birds	*Strepera graculina*	Pied Currawong	Native	Visual	4/6/2015
				Visual	26/06/2017
Birds	*Manorina melanocephala*	Noisy Miner	Native	Visual	4/6/2015
				Visual	26/06/2017
Birds	*Anthochaera carunculata*	Red Wattlebird	Native	Visual	4/6/2015
Birds	*Rhipidura rufifrons*	Rufus Fantail	Native	Visual	4/6/2015
Birds	*Chroicocephalus novaehollandiae*	Silver Gull	Native	Visual	4/6/2015
				Heard	26/06/2017
Birds	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	Native	Visual	4/6/2015
Birds	*Cracticus torquatus*	Grey Butcherbird	Native	Visual	26/06/2017
Mammals	**Unidentified *Microchiroptera* spp.**		**Native**	**Visual**	**26/06/2017**
Mammals	***Pteropus poliocephalus***	**Grey-headed Flying-fox**	**Native**	**Heard**	**26/06/2017**
Reptile	*Lamphropholis guichenoti*	Garden Skink	Native	Visual	4/6/2015
Insect	Three species of Butterflies not identified to genus or species level		Native	Visual	4/6/2015

Factor

Table 1 – Fauna species list

Source: Ecological Consultants Australia Pty Ltd

While no arboreal mammals were observed, there is suitable habitat for Brush-tail and Ringtail Possums within the study area. For this study it has been assumed that microbats are present within the study area. Introduced Black Rats are expected to be present throughout the study area, despite a lack of observations.

Table 2 below lists the threatened fauna listed in Bionet within 10km of the site. No threatened fauna were recorded on-site, however it is considered that microbats could use the site.

Class	Scientific Name	Common Name	NSW status	Comm. Status	Records	Habitat Requirements	Site Suitability
Amphibia	*Pseudophryne australis*	Red-crowned Toadlet	V,P		65	Occurs in open forests on Hawkesbury and Narrabeen Sandstones. Inhabits ephemeral drainage lines below sandstone ridges. Requires shelter in the form of rocks, dense vegetation and thick leaf litter.	Potential habitat for the Red Crowned Toadlet exists throughout the study area in the form of ephemeral watercourses and pools adjacent to the abundant sandstone ridges. Further assessment is required. A 7-Part Test of Significance has been performed.
Aves	*Botaurus poiciloptilus*	Australasian Bittern	E1,P	E	1	Occurs along the coast, within permanent and seasonal freshwater wetland habitat. The species favours those with tall, dense vegetation. Feeds at night upon frogs, fish, yabbies and terrestrial invertebrates.	No potential habitat within the study area. No further assessment required.
Aves	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	V,P	C	12	Occurs along the coastline and occasionally larger waterways.	No potential habitat within the study area. No further assessment required.
Aves	*Hieraaetus morphnoides*	Little Eagle	V,P		1	Occurs within open eucalypt forests, woodlands and open woodlands. Nests in tall trees.	No potential habitat within the study area. No further assessment required.

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
Aves	*Pandion cristatus*	Eastern Osprey	V,P		1	The breeding population of the species has recently extended as far south as Sydney and Ulladulla from its more northerly breeding distribution. The species forages within estuarine and inshore marine waters and coastal rivers. The species nests within tall trees within coastal habitats from open forest to open woodlands. The species occasionally utilises artificial structures for nest sites and lookouts.	No potential habitat within the study area. No further assessment required.
Aves	*Burhinus grallarius*	Bush Stone-curlew	E,P		1	This species has a broad distribution throughout Australia. The species is rare or extinct from its former range throughout south-eastern Australia. Occurs within open forests and woodlands. Prefers areas with sparse grass groundcovers and significant fallen timber. The species is nocturnal and feeds upon insects and smaller frogs, lizards and snakes. Nesting occurs on the ground within a patch scraped bare.	No potential habitat within the study area. No further assessment required.

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
Aves	*Esacus magnirostris*	Beach Stone-curlew	E,P		1	This species has a broad distribution throughout Australia. The species is rare or extinct from its former range throughout south-eastern Australia. Occurs within open, undisturbed beaches, islands, reefs, estuarine intertidal sandflats and mudflats. Prefers areas with estuarine habitat and mangroves in the vicinity. Forages upon marine invertebrates. Nesting occurs within sandbanks, spits or islands in estuaries, or within mangroves or sand surrounded by grass and casuarinas.	No potential habitat within the study area. No further assessment required.
Aves	*Haematopus fuliginosus*	Sooty Oystercatcher	V,P		3	The species has a broad distribution throughout the Australian coast. Smaller numbers of the species persist in an even distribution throughout the New South Wales coast. Reductions in suitable nesting habitat are thought to be limiting populations. Occurs within rocky headlands, rocky shelves, exposed reefs, rock pools, beaches and estuaries containing mudflats. Forages upon marine invertebrates	No potential habitat within the study area. No further assessment required.

Factor

Class	Scientific Name	Common Name	NSW status	Comm. Status	Records	Habitat Requirements	Site Suitability
						including mussels and limpets found on exposed rocks.	
Aves	*Onychoprion fuscata*	Sooty Tern	V,P		1	Infrequently observed along the New South Wales coast, with large flocks seen soaring and skimming over the water. Breeds further north at Lorde Howe Island and Norfolk Island.	No potential habitat within the study area. No further assessment required.
Aves	*Lathamus discolor*	Swift Parrot	E,P	CE	2	Migrates to south-eastern Australia in autumn and winter months from Tasmania. Occurs in coastal New South Wales and the southwest slopes in areas of abundant flowering eucalypts or in areas of lerp infestations.	No potential habitat within the study area. No further assessment required.
Aves	*Ninox connivens*	Barking Owl	V,P		1	Occurs within eucalypt woodlands, open forest, swamp woodlands and timbered watercourses. Roosting occurs along creek lines, in tall understorey trees with dense foliage. Preys upon invertebrates, birds and mammals including smaller possums, gliders, rodents and rabbits. Utilises tree hollows for breeding in winter to spring.	No potential habitat within the study area. No further assessment required.
Aves	***Ninox strenua***	**Powerful Owl**	**V,P**		**43**	**The species requires large tracts of forest or woodland, however**	**The study area contains Powerful Owl foraging habitat in the form**

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
						fragmented landscapes can contribute to their range. Breeds in forests and woodlands but may forage in open areas. Mainly preys upon medium sized arboreal mammals. Requires tree hollows for breeding.	**of suitable habitat for one of its prey species, the common Brushtail Possum. Powerful Owls with territory within the study area would be expected to visit the site occasionally and opportunistically. The study area does not contain suitable breeding habitat for the species.** **Further assessment is required. A 7-Part Test of Significance has been performed.**
Mammalia	*Dasyurus maculatus*	Spotted-tailed Quoll	V,P	E	1	Found along the eastern coast of New South Wales within a range of habitat types including rainforests, open forest, woodland, coastal heaths and inland riparian forests. Dens are located within hollow-bearing trees, fallen logs, caves, rock crevices, boulder fields and cliff faces. Large areas of intact vegetation are required for foraging. Feeds upon possums, gliders, smaller wallabies, rats, birds, rabbits, other small native mammals and insects.	No potential habitat within the study area. No further assessment required.

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
Mammalia	*Cercartetus nanus*	Eastern Pygmy-possum	V,P		9	Occurs in a range of habitats including rainforests, sclerophyll forests, woodlands and heath. Prefers woodland habitat. Primarily feeds upon nectar and pollen from banksias, bottlebrushes and eucalypts, and occasionally invertebrates. Refuge sites include tree hollows, stumps, ground holes, bird nests, possum dreys and vegetation thickets.	No potential habitat within the study area. No further assessment required.
Mammalia	***Pteropus poliocephalus***	**Grey-headed Flying-fox**	**V,P**	**V**	**54**	**The species range extends 200 km inland from Australia's eastern coast. The species occurs in subtropical rainforests, temperate rainforests, tall sclerophyll forests and woodlands, heaths, swamps, urban gardens and fruit crops. Roosting camps generally occur within 20km of a significant food source, commonly within riparian rainforest, melaleuca forest or casuarina forests. Camps are also generally found in gullies, close to water and in vegetation with a dense canopy. The species feeds upon nectar and pollen of native trees including**	**The study area contains Grey-headed Flying-fox foraging habitat. Grey-headed Flying-foxes would be expected to visit the site to access flowering *Eucalypts*, *Banksias* and *Melaleucas*. The study area does not contain suitable breeding habitat for the species.** **Further assessment is required. A 7-Part Test of Significance has been performed.**

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
						***Eucalytpus, Melaleauca, Banksia,* rainforest trees, vines. Individuals travel up to 50km to access foraging resources.**	
Mammalia	*Miniopterus australis*	Little Bentwing-bat	V,P		2	Roosts in tree hollows, caves, tunnels, mine shafts, stormwater drains, culverts, bridges and buildings. Forages for insects in the tree canopy in densely vegetated areas. Prefers moist eucalyptus forests, rainforests, vine thickets, wet and dry sclerophyll forests, Melaleuca swamps, dense coastal forests and banksia scrub. Prefers well-timbered areas.	No potential habitat within the study area. No further assessment required.
Mammalia	***Miniopterus schreibersii oceanensis***	**Eastern Bentwing-bat**	**V,P**		**23**	**Primarily roosts in caves but will utilise mine shafts, stormwater tunnels, buildings and other man-made structures. Forms colonies within a maternity cave and disperse within a 300km range. Forage in forested areas in the tree canopy.**	**The study area contains Eastern Bentwing-bat foraging habitat. The species would be expected to travel from roosting sites in the surrounding area to forage within the forested areas of the study area. The study area does not contain suitable breeding habitat for the species, as they form large colonies within materinity caves.** **Further assessment is required. A 7-Part Test of Significance has been performed.**

Factor							
Class	**Scientific Name**	**Common Name**	**NSW status**	**Comm. Status**	**Records**	**Habitat Requirements**	**Site Suitability**
Mammalia	*Myotis macropus*	Southern Myotis	V,P		5	Roosts in groups of 10-15 in areas close to water. Will utilise caves, mine shafts, tree hollows, storm water drains, buildings, bridges and dense foliage. Forages over water bodies catching insects and small fish.	No potential habitat within the study area. No further assessment required.

Species highlighted in **bold** are considered to have suitable habitat within the study area. V = Vulnerable, P = Protected, E = Endangered, CE = Critically Endangered C = Listed on China Australia Migratory Bird Agreement

Table 2 – Potential threatened fauna species

Source: Ecological Consultants Australia Pty Ltd

Species in **bold** in **Table 2** indicate species which are considered to have suitable habitat within the study area. 7-Part Tests for these species have been conducted. Those determined to not have suitable habitat within the study area have not undergone 7-Part Tests as they are unlikely to occur within the study area. Marine species including birds that would not use this habitat have been removed from the list.

The results of the tests are provided at Appendix II of the Flora and Fauna Impact Assessment at **Appendix N**. The tests indicate that the proposed activity is not likely to have a significant impact on threatened species. The following is noted:

- This proposal is not likely to impact hypothetical local populations of *Pseudophryne australis*. Any potential impacts during the construction phase including sedimentation will be easily managed during works. Increased foot traffic through the site may result in minor degradation to potential habitat, however, this is not significant to the persistence of local populations as they are not known to inhabit the study area.
- This proposal is not likely to impact local populations of *Miniopterus schreibersii*. Potential impacts include minor losses of foraging habitat, disturbance to the species during all phases of the project and degradation of habitat during the operation phase. These potential impacts are not considered to be significant to the persistence of the species in the study area and the vicinity.
- This proposal is not likely to impact local populations of *Ninox strenua*. Potential impacts include minor losses of foraging habitat, disturbance to the species during all phases of the project and degradation of habitat during the operation phase. These potential impacts are not considered to be significant to the persistence of the species in the study area and the vicinity.
- This proposal is not likely to impact local populations of *Pteropus poliocephalus*. Potential impacts include minor losses of foraging habitat, disturbance to the species during all phases of the project and degradation of habitat during the operation phase. These potential impacts are not considered to be significant to the persistence of the species in the study area and the vicinity as large areas of foraging resources exist within the study area.

Factor

Microbats

Microbats could be likely to utilize foraging resources within the study area as part of a wider network of fragmented habitat patches across the landscape. From pers. comm. with people recently in the buildings it appears there are no micro-bats in the buildings.

Areas of native woodland in the study area are likely to contain trees which contain hollows for microbat roosting. In addition, the Pheonix Palms on the turf at the front of Gap Bluff Cottage also had hollows in the upper overlapping leaf stems which could also be used by microbats for roosting. Sandstone outcrops and overhangs occur across the site and some of these may be used by cave roosting bats although all those inspected appeared to be too small.

Endangered populations

There were only two endangered populations found within 10km of the site. Neither are listed for South Head.

Family	Common name	Scientific name	NSW status	Comth status	No. of records
Aves	Little Penguin in the Manly Point Area	*Eudyptula minor*	Endangered		4
Mammalia	Long-nosed bandicoot, North Head	*Perameles nasuta*	Endangered		277

Conclusion

Native birds, including wrens and other small birds, live in bushland on the site. Common urban birds are also present including an abundance of Noisy Minors. These territorial birds can reduce the diversity of small birds by mobbing them and driving them out of areas.

In summary:

- Densely vegetated areas on-site were generally good habitat for small birds and reptiles. Areas with a mix of lawns (turf) and trees were dominated by Noisy Minors which will compete with other more important native species. Frogs and lizards are expected to be on-site despite none being seen during surveys. Micro-bats are expected to utilise the remnant vegetation on site.
- A total of 20 fauna species were observed within the study area, including 14 birds, two mammals and one reptile.
- Two species of threatened fauna were recorded within the study area including the Grey Headed Flying Fox (*Pteropus poliocephalus*) and an unidentified Microbat (*Microchiroptera sp.*).
- Suitable habitat was identified within the site for threatened species including the Grey Headed Flying Fox, the Powerful Owl, the Eastern Bentwing Bat and the Red Crowned

Factor

Toadlet. Test of Significance (also known as 7-Part tests of significance) have been performed for these species.

(g) any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air

Refer to response above regarding potential impacts on fauna. With respect to flora, Ecological Consultants Australia recorded 95 flora species on-site during previous surveys. 40 native species were recorded in quadrats as part of the audit undertaken for the revised REF.

Field surveys were conducted in late 2016 and 2017, with six randomly selected quadrats surveyed throughout bushland in the study area. Quadrat surveys were performed using the BioBanking Assessment Methodology (2014). The plot-based floristic surveys were based on a 20 m × 20 m quadrat. Based on floristic data collected on-site, two Plant Community Types (PCT) and one vegetation community were seen on site:

1. Coastal Headland Banksia Heath (PCT 1822);
2. Coastal Sandstone Foreshore Forest (PCT 1778); and
3. Disturbed weeds and exotics.

There was no Endangered Ecological Communities (EEC) listed on Bionet in the wider area. During the site visit it was found that there were species common to the EEC Eastern Suburbs Banksia Scrub (ESB), however the soil type was not indicative of ESBS. Although coastal heath vegetation and ESBS are very similar, they can be distinguished by the underlying soil. ESBS occurs on disjunct patches of nutrient poor Aeolian dune sand. Soil maps from Sydney Metropolitan Catchment Management Authority and eSPADE NSW soil and land information database identify the underlying soil of the study area to be from colluvial formation, with Aeolian soils occurring some distance south of the study area.

The quadrat survey found that the site is predominately made up of exotic species due to past disturbance history. Most resilient areas were found in the far south-eastern corner. Mother of Millions (Bryophyllum delagoense) is a priority weed to control. This will require skirting to remove from native canopies and scrape and paint at the base of the vine using a Glyphosate based herbicide to eradicate weed. Other weeds to target are Lantana (Lantana camara), Blackberry (Rubus fruticosus), and Asparagus species.

The full list of native and exotic species identified on the site is on pages 31 – 38 of the Flora and Fauna Impact Assessment at Appendix N of the REF.

The potential threatened plant species at Gap Bluff are listed in the **Table 3** below.

Factor

Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat Requirements	Site Suitability
Casuarinaceae	***Allocasuarina portuensis***	**Nielsen Park She-oak**	**E1,P,3**	**E**	**60**	**Originally only known to Nielsen Park in the Woollahra local government area. The original habitat of the species is thought to be tall closed woodland situated above a sandstone shelf. The area of origin features highly siliceous, coarsely textured shallow sandy soils, lacking a soil profile.**	**Whilst the species is only known to naturally occur at Nielson Park, it is widely known to have been planted within the study area. This location was chosen as recovery habitat due to similarities in soil types required to support the species.** **Further assessment is required. A 7-Part Test of Significance has been performed.**
Ericaceae	*Epacris purpurascens var. purpurascens*		V,P		1	Occurs in a range of habitats, many of which have a shale influence. Commonly found on ridgetop drainage depressions adjacent to wet heath communities, or in	No potential habitat within the study area. No further assessment required.

Factor

Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat Requirements	Site Suitability
						association with shale cap communities.	
Euphorbiaceae	*Chamaesyce psammogeton*	Sand Spurge	E,P		1	The species occurs on dunes and exposed headlands.	No potential habitat within the study area. No further assessment required.
Fabaceae (Mimosoideae)	***Acacia terminalis subsp. terminalis***	**Sunshine Wattle**	**E,P**	**E**	**245**	**Features a sparse and scattered distribution with areas of habitat being small and isolated. Generally occurs on coastal scrub and dry schlerophyll woodlands on sandy soils. Seeds are dispersed by ants and recruitment occurs after fire.**	**The study area contains suitable habitat for the species including woodlands on sandy soils. Furthermore, the species is known to exist within the study area.** **Further assessment is required. A 7-Part Test of Significance has been performed.**
Lamiaceae	*Prostanthera junonis*	Somersby Mintbush	E,P	E	2	Occurs on the eastern extremity of the Somersby Plateau on Somersby and Sydney Town soil landscapes on gently undulating topography over weathered Hawkesbury Sandstone geology. The species occurs on open forest, low woodland and open scrub.	No potential habitat within the study area. No further assessment required.

Factor							
Family	**Scientific Name**	**Common Name**	**NSW status**	**Comm. status**	**Records**	**Habitat Requirements**	**Site Suitability**
Lamiaceae	*Prostanthera marifolia*	Seaforth Mintbush	E,P	CE	158	The species is known to have a highly-restricted distribution throughout the Sydney suburb of Seaforth. The species is associated with the Duffys Forest endangered ecological community.	No potential habitat within the study area. No further assessment required.
Myrtaceae	*Callistemon linearifolius*	Netted Bottle Brush	V,P		4	The species occurs from the coast to the ranges on dry sclerophyll forest.	No potential habitat within the study area. No further assessment required.
Myrtaceae	***Eucalyptus camfieldii***	**Camfield's Stringybark**	**V,P**	**V**	**4**	**The species occurs on poor, sandy, shallow, Hawkesbury Sandstone derived soils in coastal areas. Known to occur within coastal heath communities along exposed sandstone ridges.**	**The study area contains suitable habitat for the species including coastal heath communities on sandy soils with sandstone ridges.** **Further assessment is required. A 7-Part Test of Significance has been performed.**
Myrtaceae	*Eucalyptus nicholii*	Narrow-leaved Black Peppermint	V,P	V	2	The species occurs in grassy and sclerophyll woodlands with associations with other *Eucalyptus* species, on infertile soils derived from shales and slate.	No potential habitat within the study area. No further assessment required.

Factor

Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat Requirements	Site Suitability
Myrtaceae	*Syzygium paniculatum*	Magenta Lilly Pilly	E,P	V	63	The species occurs within rainforest on sandy soils or dunes in coastal areas.	The study area contains marginally suitable habitat for the species in the form of sandy soils. The present of numerous individuals to the south of the study area presents the potential for dispersal to the site. Further assessment is required. A 7-Part Test of Significance has been performed.
Proteaceae	*Persoonia hirsuta*	Hairy Geebung	E,P	E	1	The species displays a scattered distribution throughout the coast to the Blue Mountains. The species occurs on sandy soils in dry sclerophyll open forest, woodlands and heath.	The study area contains suitable habitat for the species in the form of woodlands and heath communities on sandy soils. Further assessment is required. A 7-Part Test of Significance has been performed.
Thymelaeaceae	*Pimelea curviflora var. curviflora*		V,P	V	7	The species is confined to coastal regions of Sydney. The species occurs on shale / lateritic soils over sandstone, sandy soils derived from sandstone and shale / sandstone transition	The study area contains suitable habitat for the species in the form of sandy soils derived from sandstone.

Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Habitat Requirements	Site Suitability
						soils along ridgetops and slopes within woodlands.	Further assessment is required. A 7-Part Test of Significance has been performed.

Species highlighted in **bold** are considered to have suitable habitat within the study area. V = Vulnerable, P = Protected, E = Endangered, CE = Critically Endangered

Table 3 – Potential threatened plant species

Source: Ecological Consultants Australia Pty Ltd

Factor

7-Part Tests were carried out for the species identified in bold above. The results of the tests are provided at Appendix I of the Flora and Fauna Impact Assessment at **Appendix N**. The tests indicate that the proposed activity is not likely to have a significant impact on threatened species. The following is noted:

- This proposal is not likely to impact on the viable local population of *Acacia terminalis subsp. terminalis*. Site management protocols and on-site field surveys pre-development, during and post-development of this species to identify its presence within the development area has increased the survival of this species.
- This proposal is not likely to impact on the viable local population of *Syzygium paniculatum*. Conducting onsite field surveys pre-development, during and post-development of this species will increase this species survival rates. Other activities to assist this species would be to undertake weed control, undertake habitat restoration, and monitor sites.
- This proposal is not likely to impact on the viable local population of *Persoonia hirsuta*. Conducting searches in suitable habitat pre-development, during and post-development of this species will increase this species survival rates. Other activities to assist this species would be to undertake weed control, undertake habitat restoration, erect on-site markers to alert maintenance staff and road-users to the presence of this species, and monitor sites.
- This proposal is not likely to impact on the local population of *Allocasuarina portuensis*. Site management protocols enforced by Woollahra Council and conducting on-site field surveys pre-development, during and post-development of this species will increase this species survival rates. Other activities to assist this species would be to undertake weed control, undertake habitat restoration, monitor sites and assist in translocations where appropriate
- This proposal is not likely to impact on the viable local population of *Eucalyptus camfieldii*. Conducting searches in suitable habitat pre-development, during and post-development of this species will increase this species survival rates. Other activities to assist this species would be to undertake weed control; undertake habitat restoration; implement measures to reduce the impact of arson (e.g. buffer zones and reduce fuel-loads); erect on-site markers to alert maintenance staff and road-users to the presence of this species; and monitor sites.
- This proposal is not likely to impact on the viable local population of *Callistemon linearifolius*. Conducting searches in suitable habitat pre-development, during and post-development of this species will increase this species survival rates. Potential habitat for this plant may still exist in the form of a soil seed bank. It is possible that active management including weed control and scarification may encourage germination of Netted Bottlebrush in areas of sandstone heathland/woodland vegetation that are currently degraded and senescent but have good recovery potential. Other activities to assist this species would be to undertake habitat restoration, erect on-site markers to alert maintenance staff and road-users to the presence of this species, and monitor sites.
- This proposal is not likely to impact on the viable local population of *Pimelea curviflora var. curviflora*. Conducting searches in suitable habitat pre-development, during and post-development of this species will increase this species survival rates. Other activities to assist this species would be to undertake habitat restoration, weed removal, erect on-site markers to alert maintenance staff and road-users to the presence of this species, and monitor sites.

In summary:

- Desktop studies and in-field surveys were conducted. Vegetation condition ranges from good to very poor.
- No Endangered Ecological Communities occur on the site.
- Over 95 native species have been recorded on-site during previous surveys done by Ecological Consultants Australia. 40 native species were recorded in quadrats during the more recent 2016 audit.
- Two Plant Community Types (PCTs) were seen on-site: 'Coast Banksia Heath '(PCT 1822)', 'Coastal Headland Banksia Heath (PCT 1822)', as well as disturbed terrain dominated by weeds and exotics species.
- Two threatened plant species were recognised as occurring within the site. *Acacia terminalis subsp. terminalis* was identified during field surveys. *Allocasuarina portuensis* is

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known to be planted south of the Armoury subject site. Actions from the recovery plan for *Acacia terminalis subsp. Terminalis* could be implemented on this site to assist with flora in general.

7-Part Tests were conducted for potential threatened plant species on the site. All 7-part tests conducted were negative, indicating that proposed activity is not likely to have a significant impact on threatened species.

(h) any long-term effects on the environment

The activity will not have any long term effects on the biophysical environment. As outlined in the REF, a range of mitigation measures will be put in place to ensure that there are no impacts on the environment during construction works, as well as during the ongoing operation of the venues.

It is considered that the proposal will have positive long term impacts in terms of heritage conservation and ensuring the long term viability and maintenance of the National Park. Further, the proposed activity incorporates a number of sustainability measures, as outlined in the ESD Report at Appendix J of the REF. These sustainable features will significantly improve the environmental performance of the existing buildings and include:

- Passive design features, such as enhanced natural ventilation and effective shading measures.
- Reuse of existing materials.
- Use of low VOC products, low/zero formaldehyde timbers, FSC certified timber and GECA certified furnishings and floor coverings.
- Use of star-rated equipment where possible, to within 0.5 stars of the best available.
- Use of high efficiency HVAC equipment.
- Use of occupancy controls and LED lighting.
- Establishment of energy targets.
- Use of WELS-rated fittings, fixtures, appliances and equipment.
- Establishment of minimum recycling targets.
- Education of staff and guests in best achieving sustainability targets.

(i) any degradation of the quality of the environment

The activity will not degrade the quality of the environment. As outlined above and in the REF, the proposal had been revised to ensure that there is no degradation of the environment. Key amendments include:

- Reducing the volume of patrons and the associated traffic, parking and noise concerns. The capacity of the venues is now consistent with the previous use of the site.
- Reducing the scale of the Armoury building to a single storey building, resulting in an associated reduction in capacity and reduced visual impacts.
- Changing the use of Constables Cottage to short-stay accommodating, resulting in improved privacy, acoustic, traffic and parking outcomes.
- Improving public access to the National Park through the introduction of an Open Day and complementary use of the Armoury or Officers Mess for community groups on up to 10 occasions a year.
- Resolving concerns around heritage interpretation and landscaping.

The works are now limited to renovations and refurbishments of the existing buildings, with no significant adaptations or extensions proposed. The refurbished buildings are now generally within the footprints of the existing buildings, the buildings retain their previous uses, and the intensity of the uses will remain consistent with the previous use of the site. To

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ensure that impacts on the environment are reduced, the proposal no longer includes a second storey addition to the Armoury or the change of use of Constables Cottage. The proposed changes will ensure that there is no degradation of the aesthetic, historic or biophysical quality of the environment. During construction, appropriate mitigation measures will be put in place to manage any environmental impacts. The detailed Construction Management Plan will be consistent with the principles established in the Construction Management Plan prepared by Expertise Building & Construction Pty Ltd (refer to Appendix I of the REF).
(j) any risk to the safety of the environment With the implementation of appropriate mitigation measures, there is no risk to the safety of the environment.
(k) any reduction in the range of beneficial uses of the environment The Gap Bluff precinct is regularly used for recreational activities. Whilst the buildings in question have been vacant for some time and inaccessible to the public, the grounds upon which they stand continue to be publically accessible and are popular for walking and picnicking activities. Camp Cove is also particularly popular for recreational activities. Camp Cove Beach is used for swimming, sunbathing, snorkelling and diving. The proposed activity would continue to allow the area to be used for all of the activities it is currently used for. It would also improve enjoyment of the area by significantly improving access and upkeep of six historically significant buildings.
(l) any pollution of the environment The proposed activity will not result in any adverse pollution impacts. All construction and operational waste will be managed in accordance with the Waste Management Plan in order to reduce waste generation, and manage waste appropriately. There will be no adverse air or water pollution impacts as a result of the development. During the construction process, air and water quality will be managed through the measures outlined in the Construction Management Plan at Appendix I of the REF, including: • Bunding around stormwater drains. • Installation of filter cloth to precent debris and silt from entering Council's drains. • Watering down work surfaces as required. • Ensuring all loading is undertaken within the site, and that all loads are covered.
(m) any environmental problems associated with the disposal of waste Operational waste will be managed in accordance with the Waste Management Plan prepared by Gap Bluff Hospitality Pty Ltd (refer to Appendix K of the REF). Due to the reduced scale of the proposal, all waste will now be managed at its specific location, with most waste created and held at the Officers Mess and the Armoury within appropriate containers within designated areas. Waste storage and collection will take place from each location. All waste from the short-term accommodation cottages will be removed as part of the cleaning procedures and stored at each location in typical Council bins, consistent with the domestic nature of the use. Within the waste management areas, the following waste management measures will be adopted for the proposed activity: • *General Waste - 1 General Waste 660L Bins will be provided at each location for the use of the cleaners. Collection will be arranged on an as needed basis, anticipated to be twice a week in low season April to August and 4 times a week in high season September to March.* • *Organic Waste* - Organic/food waste is to be separated from other waste streams and placed in the Organic waste bins provided (purple 120 litre mobile bins). Organic waste will be processed in the PulpMaster system and converted to compost. The resulting compost will be used within the precinct pending approval from National Parks or collected for landfill, albeit in significantly less volume. • *Cardboard* - A cardboard compactor is located in the waste management area. All cardboard will be transported in mobile plastic bins (240 litres) to the waste management

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area. 1x50Kg bale is anticipated per week. • *Glass Recycling - A Bottle Crusher will be located at Officers Mess and The Armoury within an enclosed space to contain noise. All crushed glass waste is to be stored in blue 75 litre bins. Crushing of glass will be conducted at after 9.00am and before 10.00pm at night. It is estimated that 2x75 litre bins per venue will be sufficient for the anticipated volume of glassware per week, year-round. This will ensure a minimum of collections as glass is one of the bulkiest waste products.* • *Cooking Oil Recycling - A cooking oil recycling system is located within the waste management area. Oil caddies supplied by the service provider will be used to transport cooking oil for storage within the oil recycling system, ready for collection on an as needed basis. An estimated 1,000 litres of cooking oil will be consumed and recycled per year for the Officers Mess and the Armoury* A detailed Construction Management Plan will be prepared prior to commencement of any works. It will detail measures to manage construction waste, as well as any hazardous building waste.
(n) any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply
The proposed activity represents the adaptive reuse of existing buildings, and will not put any increased demand on resources that are, or are likely to become, in short supply. The proposed activity incorporates a number of sustainability measures, as outlined in the ESD Report at Appendix J of the REF. These sustainable features will signifiacntly improve the environmental performance of the existing buildings and include: • Passive design features, such as enhanced natural ventilation and effective shading measures. • Reuse of existing materials. • Use of low VOC products, low/zero formaldehyde timbers, FSC certified timber and GECA certified furnishings and floor coverings. • Use of star-rated equipment where possible, to within 0.5 stars of the best available. • Use of high efficiency HVAC equipment. • Use of occupancy controls and LED lighting. • Establishment of energy targets. • Use of WELS-rated fittings, fixtures, appliances and equipment. • Establishment of minimum recycling targets. • Education of staff and guests in best achieving sustainability targets.
(o) any cumulative environmental effect with other existing or likely future activities
The cumulative impacts of the proposed activity have been considered with respect to traffic, parking and noise. The site sits within an existing urban environment, and the impacts of other existing uses in the area have also been considered, where appropriate. The impacts are acceptable and are capable of being managed with appropriate mitigation measures.
(p) any impact on coastal processes and coastal hazards, including those under projected climate change conditions.
The proposal will not affect coastal process or coastal hazards.