Office of Environment & Heritage

NSW GOVERNMENT

Our ref: DOC16/541882
Your ref: 2016/325331

Mr Tony Collier
A/Planning Assessment Manager
Northern Beaches Council
PO Box 1336
DEE WHY NSW 2099

Dear Mr Collier

**Request for concurrence: DA2015/0597 Manly Vale Public School**

I refer to your request dated 24 October 2016, for the concurrence of the Office of Environment and Heritage (OEH) to DA2015/0597, for demolition works, alterations and additions to existing buildings, construction of new school buildings and an increase in student numbers at Manly Vale School at Lot 1768/ Sunshine Street, Manly Vale.

I have considered your request and have decided to grant concurrence, for the reasons given in the attached concurrence report.

If you have any further questions in relation to this matter, please contact Sarah Burke, Team Leader Compliance and Regulation on phone 9995 6848 or sarah.burke@environment.nsw.gov.au

Yours sincerely

**DAVID TREWIN**
**Regional Manager Greater Sydney**
**Regional Operations**

*As delegate to the Director-General* 16/12/2016

Contact officer: SARAH BURKE
(02) 9995 6848

# CONCURRENCE REPORT – MANLY VALE PUBLIC SCHOOL REDEVELOPMENT

## EXECUTIVE SUMMARY

On 15 December 2016, the Office of Environment and Heritage (OEH) received a complete concurrence application from Northern Beaches Council pursuant to Section 79B(3) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Concurrence was sought for a development application under Part 4 of the EP&A Act.

I have considered the application from Northern Beaches Council in accordance with Section 79B(5) of the EP&A Act and I have decided to grant concurrence to this development for the reasons set out in Section 6 of this report and subject to the conditions set out in section 7 of this report.

**DAVID TREWIN**
**Regional Manager Greater Sydney**
**Regional Operations**

16/12/2016

*As delegate to the Director-General*

## 1 DESCRIPTION OF THE PROPOSAL AND THE ENVIRONMENT

The proposal considered by OEH for the purpose of deciding whether or not to grant concurrence is Northern Beaches Council development application reference DA2015/0597, as described by the following documents supplied by Northern Beaches Council, on 24 October, 6 December and 15 December 2016:

- Preliminary Species Impact Statement ('Preliminary SIS') (Kleinfelder, June 2015)
- Statement of Environmental Effects (SEE) (Department of Public Works, June 2015);
- Addendum report to the SEE (Ingham Planning, September 2016);
- Landscape Management Plan (Kleinfelder, August 2016)
- Re-design SIS (Kleinfelder, September 2016) (referred to as 'SIS' in this document)
- Council's Assessment Report including conditions (6 December 2016);
- Council's Supplementary Report addressing submissions received in relation to the third exhibition of the proposal (15 December 2016)

The development involves Crown development (educational establishment) with a capital investment value over $5 million. The application will be referred to the Sydney North Planning Panel (SNPP) for determination pursuant to Part 4 (Regional Development) of *State Environmental Planning Policy (SEPP) (State and Regional Development) 2011* and Schedule 4A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). However, the functions under section 79B of the EP&A Act in regards to consultation and concurrence are (specifically) not conferred on the Panel (refer to Part 4, Section 21(2)(a) of the SEPP *(State and Regional Development) 2011*). Therefore, in regard to s79B, Council remains as the consent authority and is responsible for gaining any necessary concurrences.

The land on which the development will occur is owned by the Department of Education and is 2.86 hectares. The proposal will require asset protection zones which will impact adjoining lots to the west and south. The school site is zoned R2 Low Density Residential under the Warringah Local Environmental Plan 2011 (WLEP 2011). Educational establishments are permitted with consent within the zone. There is an existing school on the site. An aerial photograph overlaid with a layout of the proposal is attached at Appendix 1.

The site adjoins significant areas of bushland to the west (the Manly War Memorial Park Reserve) and to the south (Condover Reserve). These bushland areas are zoned RE1 (Public Recreation) zone. R2 (Low Density Residential) zoned land adjoins the site to the north and east. An aerial photo showing the site and Manly War Memorial Park in context is attached at Appendix 2. It should be noted that while the proposal will reduce the amount of native vegetation on the site, the reduction equates to a relatively minor proportion (0.5%) of the collective area of bushland available in the locality, particularly within the Manly Warringah War Memorial Park Reserve and Condover Reserve

Approximately 30% of the site area contains a variety of permanent and temporary school buildings. The remaining 70% of the site is bushland atop significant rock outcrops.

The original DA (June 2015) involved the construction of four new building blocks and the renovation of one existing block, and would have resulted in the clearing of vegetation on site for buildings and Asset Protection Zones (APZs) of 4.37 ha. Staff of Council's Natural Environment Unit did not support the proposal and required further studies to be undertaken. The Save Manly Dam Catchment Committee also contracted an independent ecological assessment which was critical of the SIS. In response to a submission from this association, further surveys were undertaken by the applicant's ecologist (Kleinfelder) to address these concerns, in particular for the Red-crowned Toadlet and Duffys Forest. An addendum to the SIS was provided which addressed these issues.

In August 2016, the proponent submitted a modified design in which the truncation of one of the buildings resulted in a reduced overall footprint of buildings and APZ to 3.65 ha (a reduction of 8,500m$^2$).

A revised Landscape Management Plan was also submitted which divided the site into six management zones based on the landscape characteristics and planned APZ/ecological management and

outcomes. These zones are shown in Figure 5 of the Plan (reproduced as Appendix 3) and include 'retained vegetation islands' within the APZs of 0.51 ha in total. The LMP states that these zones aim to retain key habitat features including remnant canopy trees, vegetation around rocky outcrops and cliff lines, and key habitat features for threatened species, particularly the Eastern Pygmy-possum (by inclusion of a north-south fauna corridor through the APZ linking adjacent vegetation) and the Red-crowned Toadlet (by protection of two drainage lines on site where the species was located).

The current proposal states that it will result in the removal and modification of approximately 3.65 ha of vegetation, including 2.4 ha of Sydney North Exposed Sandstone Woodland, 1.12 ha of Coastal Sandstone Heath Mallee and 0.14 ha of exotic vegetation. Approximately 1 ha of the development footprint is non-vegetated.

The most significant ecological issues on site are impacts on local populations of threatened fauna species, particularly the Red-crowned Toadlet and the Eastern Pygmy-possum. Northern Beaches Council (NBC) considers that these two species are likely to be significantly affected by the proposal. OEH understands that NBC is of the view that consent should be granted, and has therefore requested the concurrence of the Chief Executive of OEH, in accordance with s79B(3).

## 2 THE PUBLIC SUBMISSIONS

Section 79B(5)(c) of the EP&A(A) Act requires that the Director-General consider any submissions or objections received concerning the development application.

Council publicly exhibited the application three times, for the initial DA in July 2015, for the amended application in October 2016, and then again in November 2016. The third exhibition was prompted by a letter to Council from the Environmental Defenders Office, which argued that a valid species impact statement had not been exhibited for 30 days, as the October exhibition period had been for only 14 days. The most recent submission period was between 12 November and 13 December 2016.

In total 445 public/community submissions were received, although some of these were duplicates. Of these 445 submissions, 297 (67%) objected and 145 (33%) were in support. A majority of the submissions objecting to the proposal raised issues in relation to biodiversity, including concerns about impacts on threatened flora and fauna (particularly the Duffys Forest EEC, Eastern Pygmy-possum and Red-crowned Toadlet), as well as off-site impacts on Manly Dam and the Mermaid Pool. Most of these also raised objections with respect to issues such as traffic safety and pedestrian access, bushfire safety, loss of War Memorial Park land, stormwater runoff, and questioned the lack of justification for the proposed tripling of student numbers and the subsequent size of the development with its associated impacts.

Council's Assessment Report (December 2016) provides a response to each of the main issues raised in the submissions. In relation to the issue of impacts on flora and fauna habitats, the report argues that a Biobanking Offset Strategy has been prepared to address these impacts, and subject to concurrence being received from OEH, Council does not raise any grounds to refuse the application on this issue.

Council also prepared a Supplementary Report (15 December 2016) which discussed submissions received between 5 and 13 December 2016. The report states that the issues raised during this exhibition period were generally the same as those raised under earlier exhibition periods and have already been addressed. The report also stated that Council was aware of an on-line petition titled "*STOP Trashing Remnant Bushland - Build MVPS on the Existing Footprint*". The petition, which was submitted to the Hon, Mike Baird, contains (at the time of completing this report) 1,639 on-line contributors against the proposal. In response to the issues raised in the petition, Council's report states that the Department of Education (DoE) has been approached previously with regards to alternative design/site options. However, the DoE advised Council that, beyond the amendments made, further re-design and/or relocation to another site is not under consideration, and Council considers that this matter does not warrant refusal of the application.

## 3 CONSIDERATION OF THREATENED SPECIES ISSUES

Section 79B(5) of the EP&A(A) Act requires that the Director-General consider:

- any species impact statement prepared in relation to the activity,
- any assessment report prepared by or on behalf of the proponent,
- any relevant recovery plan or threat abatement plan,
- whether the activity is likely to reduce the long-term viability of the species, population or ecological community in the region, and
- whether the activity is likely to accelerate the extinction of the species, population or ecological community or place it at risk of extinction.

This section of this assessment report addresses these statutory considerations, using information from the SIS, and other documents to assess the likely impact of the proposal at the local and regional levels, and whether the proposal is likely to accelerate the extinction of any of the threatened species and endangered ecological communities affected by the development.

The SIS concludes that there is unlikely to be a significant impact on any of the subject species, however Council considers the proposal is likely to significantly impact the Red-crowned Toadlet and the Eastern Pygmy-possum.

**Red-crowned Toadlet** (*Pseudophryne australis*)

This species was not recorded during surveys for the Preliminary SIS (June 2015). However, surveys in November 2015 and January 2016 by two independent ecologists (one of whom was contracted by the Save Manly Dam Catchment Committee) recorded the species on site. As a consequence, further surveys were conducted in January 2016 by Kleinfelder and an addendum to the SIS was prepared for the species.

The SIS states that Red-crowned Toadlet (RCT) habitat occurs in two locations within the study area, in a narrow drainage area in the southern portion of the study area, and in the north-west corner of the study area in a moderate seepage near a sandstone ledge. These locations are shown on Appendix 4 (Figure 8 from the SIS). A single male was heard calling at each of these locations during the January 2016 survey. Vegetation in the areas where the species was found are to be retained as habitat 'islands' via the MVPS Landscape Management Plan, in perpetuity as a RCT habitat protection area. The SIS also states that habitat for the species extends into a large contiguous area outside the study area, and individuals on site are likely to be part of a much larger population which extends beyond the study area.

It is noted that the surveys by the independent ecologists located RCT in three locations on site, in the north-west, in the south and in the centre of the site. As stated above, the Kleinfelder surveys also recorded the species in the north-west and the south of the site, but did not record the species in the centre of the site. The SIS states that "no suitable habitat occurs centrally due to a lack of identifiable rills, soaks or drainage lines where water would flow after rain. The central area is comprised of mostly flat bare rock with little to no vegetative leaf cover on the ground. A single artificial permanent pond inside a fenced area supports Striped Marsh Frogs (*Limnodynastes peronii*) and Common Eastern Froglets (*Crinia signifera*) which breed in permanent/semi-permanent waterbodies. This pond is not suitable for Red-crowned Toadlets." OEH has not visited the site, but the location where the RCT was reported to have been recorded in the centre of the site appears from aerial photos to be well vegetated. Nevertheless, vegetation in this area is to be protected via one of the 'habitat islands', so if this area is RCT habitat, the proposal should result in this area being protected.

The SIS states that the proposal would result in the removal/modification of 0.5 ha of suitable habitat for this species in the study area. The SIS also states that the existing habitat for this species on site is considered to be in moderate to good condition. The vegetation in the study area has a low level of internal fragmentation and adjoins a larger expanse of vegetation to the west and south.

Council's Assessment Report considers impacts on the RCT, including whether the proposal complies with Council's DCP. The Report argues that although there will be impacts, these will be offset via a Biobanking agreement, and as such, the proposal satisfies the objectives of the DCP.

The RCT is listed as a vulnerable species and has a restricted distribution centred around Sydney, from Ourimbah to Nowra and west to the Blue Mountains (Cogger 2000 cited in SIS). The species is found on Triassic Hawkesbury and Narrabeen Sandstones. It mainly occupies the upper parts of ridges, usually being restricted to within about 100 metres of the ridgetop. The species is susceptible to changes to water quality and flow rates.

A recovery plan has not been prepared for the RCT. A targeted strategy for the species is being developed under the Saving Our Species program. This species has been assigned to the 'landscape species management stream' under the program as the threats to this species are generally at the landscape scale (e.g. habitat loss and degradation). Known threats include fragmentation, and impacts from roads and urban development and other actions that lead to the removal and modification of habitats (OEH Species Profile 2016). These threats are relevant to this assessment, as the RCT habitats on site are likely to be subjected to these threats as a result of this proposal.

This assessment must consider whether the proposal is likely to reduce the long term viability of RCT in the region, and whether it is likely to accelerate the extinction of the RCT. There are records of the species in relatively large areas of habitat within 5 km of the site, in protected habitats such as Sydney Harbour National Park, Manly Dam and Seaforth Oval. There are 33 records of the species since the year 2000 within a 5 km radius of the site, and there are a total of 2000 records in the Wildlife Atlas for the species.

The SIS states that the two areas on site where the species was found, will be protected on site in perpetuity as RCT habitat protection areas. OEH considers that this is not a proven mitigation measure. As stated in Council's Assessment Report, RCT do not usually persist in such small, isolated areas of habitat. Also, the RCT sites are downstream of the proposal, so the long term viability of the sites as habitat is questionable given the susceptibility of the species to changes to water quality. Nevertheless, there is some chance this measure will allow the species to persist at the site and so it is still considered a worthwhile measure to implement if the proposal cannot be modified to avoid these impacts.

Despite the lack of certainty around the success of the 'habitat islands' in maintaining a viable population of the species on site in the long term, it is unlikely the proposal would reduce the long term viability of RCT in the region, given the number of RCT records in the vicinity and across its distribution. These factors also make it unlikely that the proposal would accelerate the extinction of the species.

It should also be noted that the proposal includes the protection of RCT habitats in perpetuity offsite, through the purchase of seven RCT biobank credits. The offset strategy states that the proposal will lead to the removal of 0.53 ha of RCT habitat. It is not clear how this area was calculated, though it is assumed it includes the areas marked in yellow on Figure 2 of the RCT Addendum to the SIS, as these areas are approximately 0.5 ha in size. It appears therefore that the offset strategy has assumed that all RCT habitat on site will be lost, and the proposal includes the purchase of RCT species credits to offset this loss. Offsetting the losses on site with the purchase of Biobanking species credits will assist in maintaining the viability of RCT in the region and reduce the chances of the species' extinction.

**Eastern Pygmy-possum** (*Cercartetus nanus*)

The Eastern Pygmy-possum (EPP) was detected on site using remote cameras and hair tubes. The species was also detected in the adjacent lands of Manly Warringah War Memorial Park. These locations are shown on the map in Appendix 4 (Figure 8 from the SIS).

The SIS considers that all vegetation (7.6 ha) within the study area is potential habitat for the species, and the proposal would result in the removal of 3.52 ha of this habitat. The SIS also states that the majority of potential habitat for the species in the study area is considered to be of high relative condition. The vegetation in the study area has a low level of internal fragmentation, is contiguous with an expanse of vegetation to the west and south, and contains an abundance of suitable foraging

resources for this species (i.e. vegetation dominated by or containing *Eucalyptus*, *Banksia* and *Melaleuca* spp).

Council's Assessment Report considers impacts on the EPP, including whether the proposal complies with Council's DCP. The Report argues that although there will be impacts, these will be offset via a Biobank agreement, and as such, the proposal satisfies the objectives of the DCP.

The EPP is listed as a vulnerable species and is found in south-eastern Australia, from southern Queensland to eastern South Australia and Tasmania. It is found in a broad range of habitats, but woodlands and heath appear to be preferred.

A recovery plan has not been prepared for the EPP. A targeted strategy for the species is being developed under the Saving Our Species program. This species has been assigned to the 'landscape species management stream' under the program as the threats to this species are generally at the landscape scale (e.g. habitat loss and degradation). Known threats include loss and fragmentation of habitat through land clearing, changed fire regimes, declining shrub diversity due to overgrazing, predation from cats, dogs and foxes, loss of nest sites due to removal of firewood and road mortality (OEH Species Profile 2016). These threats are relevant to this assessment, as the EPP habitats on site are likely to be subjected to these threats as a result of this proposal.

This assessment must consider whether the proposal is likely to reduce the long term viability of EPP in the region, and whether it is likely to accelerate the extinction of the EPP. There is only one other record of the species within a 5 km radius of the site, at Narraweena. There are a number of records within a 10 km radius, particularly in the Oxford Falls area, but habitats in this area are not necessarily secure. 'Region' is not defined, but if a conservative approach is taken and the CMA subregion is the 'region', there are 118 records of the EPP in the Pittwater CMA subregion. Given this number of records, it is considered unlikely that this proposal will reduce the long term viability of EPP in the region. In addition, there are numerous records across the species' range, with 1200 records of the species in NSW in the Wildlife Atlas. Therefore, it is considered highly unlikely that the proposal will accelerate the extinction of EPP. Despite this, it is acknowledged that there is some possibility the proposal will lead to the local extinction of the species.

It should be noted that the recommended conditions of consent include a condition (Condition 22) that a minimum of 20 nest boxes suitable for the EPP are to be installed in the adjoining bushland reserves. This action should reduce the likelihood of local extinction of the species. However, nest boxes should also be monitored and maintained for suitability as habitat. If concurrence is to be granted, a condition should be included that the nest boxes are to be monitored and maintained.

It should also be noted that the proposal includes the protection of EPP habitats in perpetuity through the purchase of EPP Biobanking species credits at an offset site. In calculating the biobank credit requirements, the SIS has assumed all habitat will be lost on site (3.52 ha), which will require 70 Biobank species credits as an offset. Offsetting the losses on site with the purchase of Biobanking species credits at Hornsby will further ensure the viability of EPP in the region and reduce the chances of the species' extinction.

**Powerful Owl** (*Ninox strenua*)

The Powerful Owl was detected in the southern portion of the study area, as shown on Appendix 4 during call playback surveys in 2015.

The SIS states that there are no hollows on site large enough to be suitable breeding habitat for this species, or within 100 m of the study area, and the site provides foraging habitat only. The SIS also states that the proposal would result in the removal of 3.65 ha of suitable foraging habitat for this species, and that the majority of potential habitat for this species in the study area is considered to be of high relative condition.

Council's Assessment Report considers impacts on the Powerful Owl, including whether the proposal complies with Council's DCP. The Report argues that although there will be impacts, these will be offset via a Biobank agreement, and as such, the proposal satisfies the objectives of the DCP.

The Powerful Owl is listed as a vulnerable species and is endemic to eastern and south-eastern Australia, mainly on the coastal side of the Great Dividing Range. The species has an extensive home range of between 400-1500 ha.

A recovery plan has been prepared for Large Forest Owls, which includes this species. The actions for the recovery of this species include a number of actions for OEH (including modelling and mapping habitat and population parameters, prepare impact assessment guidelines, and encourage private landholders to conserve habitat, particularly nest sites. This proposed action is not inconsistent with these actions.

This assessment must consider whether the proposal is likely to reduce the long term viability of Powerful Owls in the region, and whether it is likely to accelerate the extinction of the Powerful Owl. There are 68 records of the species in the Wildlife Atlas within a 5 km radius of the site. The action will reduce the foraging habitat of the Powerful Owl in the locality by a small degree, which may affect the viability of the population in the local area to some degree. However, given the extensive home range of the species, the lack of breeding habitat on site, and given the number of other records in the locality, it is unlikely that the action will reduce the long term viability of Powerful Owls in the region, or accelerate the extinction of the species.

**Eastern Bentwing-bat** (*Miniopterus schreibersii oceanensis*)

The Eastern Bentwing-bat (EBWB) was recorded at four locations in the study area, as shown on Appendix 4.

The species primarily roosts in caves, but also uses derelict mines, stormwater tunnels, buildings and other man-made structures. The SIS states that there is no roosting habitat available on site but that it provides suitable foraging habitat, and that the proposal would lead to the removal of 6.3 ha of foraging habitat for the species. The SIS also states that the majority of habitat for this species is considered to be of high relative condition.

Council's Assessment Report considers impacts on the EBWB, including whether the proposal complies with Council's DCP. The Report argues that although there will be impacts, these will be offset via a Biobank agreement, and as such, the proposal satisfies the objectives of the DCP.

The EBWB is listed as a vulnerable species and occurs along the east coast from Cape York to Victoria, as well as the north-west coast of Australia, and is one of the more commonly encountered cave-dwelling bats (Hoye and Hall 2008). Populations are centred on a maternity cave that is used annually for the birth and development of young. There are no known maternity colonies in the Sydney Metro CMA area, where the site is located. Outside of breeding times, populations disperse within about a 300 km range of maternity caves.

There is no recovery plan for the EBWB. OEH's Saving Our Species program identifies critical actions for the species, but these actions are relevant to sites with maternity caves and riparian areas, and so do not apply to this site.

This assessment must consider whether the proposal is likely to reduce the long term viability of EBWB in the region, and whether it is likely to accelerate the extinction of the EBWB. There are 24 records of this species within a 5 km radius of the site. The action will reduce the foraging habitat of the EBWB in the locality by a small degree, which may affect the viability of the population in the local area to some degree. However, given the large home range of the species, there is no breeding habitat on site, and given the number of other records in the locality, it is unlikely that the action will reduce the long term viability of the EBWB in the region, or accelerate the extinction of the species.

**Grey-headed Flying-fox** (*Pteropus poliocephalus*)

The Grey-headed Flying-fox (GHFF) was detected foraging on site during surveys, at the location shown on Appendix 4.

The GHFF occurs in a variety of habitats, including rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy. The SIS states that there is no roosting camp on site but that the site is used as foraging habitat. The SIS also states that the proposal would result in the removal of approximately 3.52 ha of foraging habitat for this species in the study area, and that the majority of habitat for this species in the study area is considered to be of high relative condition.

Council's Assessment Report considers impacts on the GHFF, including whether the proposal complies with Council's DCP. The Report argues that although there will be impacts, these will be offset via a Biobank agreement, and as such, the proposal satisfies the objectives of the DCP.

The GHFF is listed as a vulnerable species and occurs from Bundaberg to Melbourne, generally within 200 km of the coast. The species can travel up to 50 km from camps to forage. The closest camp to the site is at Balgowlah, which is approximately 500 m away.

No recovery plan has been prepared for the GHFF, though a draft National Recovery Plan has been prepared. The aims of this draft Recovery Plan are: to identify, protect and enhance foraging and roosting habitat which is critical to the species survival; to substantially reduce deliberate destruction associated with commercial fruit crops; to reduce negative public attitudes and conflict with humans; and to involve the community in recovery actions. The habitats on site would not be considered critical to the species survival and there are no actions which are relevant to this proposal.

This assessment must consider whether the proposal is likely to reduce the long term viability of GHFF in the region, and whether it is likely to accelerate the extinction of the GHFF. There are 51 records of this species within a 5 km radius of the site. The action will reduce the foraging habitat of the GHFF in the locality by a small degree, which may affect the viability of the population in the local area to some degree. However, given the large foraging range of the species, the lack of breeding habitat on site, and given the number of other records in the locality, it is unlikely that the action will reduce the long term viability of the GHFF in the region, or accelerate the extinction of the species.

**Other threatened fauna species**

Table 3 of the SIS provides an assessment of the likelihood of occurrence of threatened fauna species in the study area. This table includes all threatened fauna species listed in the DGRs. Table 3 also considers all species that have recently been recorded in the Wildlife Atlas, in a 5 km radius of the site. OEH notes that this table has not considered the Square-tailed Kite, a species for which there is one record in 2013 from Manly Dam. However, while it is considered that this species may utilise habitats on site occasionally, it is likely to be a vagrant species only and does not require further consideration. As a consequence of the assessment in Table 3, there are 20 subject fauna species that were targeted in surveys.

Table 7 and 8 of the SIS states that the survey methods employed included hair tubes, remote cameras, anabat, spotlighting, surveys for amphibians, birds and reptiles and nocturnal call playback, and lists the survey effort. Appendix 1 of the SIS compares the survey techniques employed to OEH survey guidelines. Surveys were conducted in 2014 (month not specified), and in March and October/November 2015. Figure 6 of the SIS shows the locations of the targeted surveys for fauna, as well as a GIS tracking of the meandering surveys as described in section 4.2.3.1. A fauna habitat assessment and habitat hollow survey was also conducted. This level of survey effort is considered adequate for a site of this size and in this location.

The SIS concludes that other than the five threatened fauna already discussed (RCT, EPP, EBWB, Powerful Owl and GHFF), there are no other threatened fauna species that are likely to be impacted

by the proposal. This conclusion is supported, as it is considered that adequate surveys were undertaken to reach this conclusion.

In its assessment of the impacts on threatened fauna, Council's Assessment Report only discusses the five threatened fauna species identified above (RCT, EPP, EBWB, Powerful Owl and GHFF). As such, it is assumed that Council considers there are no other threatened fauna on site that are likely to be impacted.

One submission prepared by Dr Renata Bali for the Save Manly Dam Catchment Committee (December 2016) states that she considers there is a medium probability that quolls, bandicoots and the New Holland Mouse occur on site. However, OEH considers that quolls and bandicoots are unlikely to occur on site, based on Atlas records and the results of the surveys. OEH notes that the New Holland Mouse is not listed under the TSC Act and does not need to be considered in the SIS. Dr Bali also states that the two hours of bird surveys were insufficient, but she does not specify which threatened bird species she considers may be on site. OEH is not aware of any threatened bird species that are likely to be affected by the proposal, such that it reduces their long term viability or accelerates their extinction.

**Threatened flora species**

Table 2 of the SIS provides an assessment of the likelihood of occurrence of threatened flora species in the study area. This table includes all threatened flora species listed in the DGRs, and all species with recent records in the Wildlife Atlas, in a 5 km radius of the site. As a consequence of the assessment in Table 2, 14 subject flora species were targeted in surveys. The reasons for limiting the surveys to these 14 species, based on habitats present, is considered reasonable and justified.

The SIS states that targeted surveys were conducted in March and November 2015, with the latter surveys conducted 12 months after a fire on site. A total of 28 person hours were spent undertaking random meanders over the study area. Eight 20 x 20 m quadrats were also undertaken to assist in identifying vegetation communities. Figure 4 in the SIS (attached as Appendix 4) presents the location of the flora quadrats. Figure 5 of the SIS provides a GIS tracking of the flora survey, which appears to have covered most of the site. Table 5 of the SIS presents an analysis of whether the time of survey and time since fire was optimal for each of the subject species.

The submission by the Save Manly Dam Catchment Committee (SMDCC) raises concerns in relation to the survey and assessment of a number of threatened flora species. These are:

- *Acacia terminalis* ssp. *terminalis*: the SMDCC submission points out that *A. terminalis* has been recorded on site and the possibility that it may be *A. terminalis* ssp. *terminalis* has not been considered. However, the SIS has clarified that it was *A. terminalis* ssp. *angustifolia* that was found on site.
- *Prostanthera marifolia*: the SMDCC submission states that the SIS has not assessed the impact on this species. However, the SIS does consider it to be a subject species. The SIS concludes that the species is unlikely to be on site, given targeted surveys were conducted that failed to find the species, even though a nearby reference population of *P. marifolia* was found to be flowering nearby at the time of the survey.
- *Tetratheca glandulosa* and *Pimelea curviflora* ssp. *curviflora*: the SMDCC submission considers that these species were not adequately considered in the SIS. However, the SIS includes these as subject species, but argues that, given comprehensive targeted surveys were conducted in the flowering time, these species are unlikely to be on site.

The SIS concludes that no threatened flora species occur on site. This conclusion is supported as being likely, and it is considered that adequate surveys were undertaken to reach this conclusion.

Some of the submissions included criticism of the threatened flora assessment, in particular that a fire had occurred on site and this had affected the survey outcomes. However, Council's Senior Environment Officer has informed OEH that a fire at Red Hill Reserve at Oxford Falls occurred at the

same time as the fire on site, and *P. curviflora* ssp. *curviflora* has since been found at Red Hill Reserve, suggesting that if this species was at the subject site it should also have been found during surveys.

Council's Assessment Report reiterates the findings of the SIS, that no threatened flora species were located on site. As such, it is assumed that Council supports this finding.

**Native vegetation communities**

Floristic quadrats were undertaken as part of the SIS assessment, and the results were assessed against identification criteria for State and Commonwealth listed endangered ecological communities (EECs) known and/or modelled to occur in the locality. Figure 5 of the SIS includes a map of the location of the eight quadrats. The number and location of these quadrats suggest the site was adequately surveyed. In fact, the SIS states that the number of quadrats examined within each vegetation stratification unit "exceeded the requirements as stipulated in the DECCW survey guidelines".

The SIS states that the study area supports two natural vegetation communities (Coastal Sandstone Mallee Heath, with an area of 1.17 ha and Sydney North Exposed Sandstone Woodland, with an area of 5.04 ha) and an area of disturbed vegetation. The two natural vegetation communities are in good condition, with few exotic species. The location of these vegetation communities is shown in Figure 7 of the SIS. Detailed vegetation communities profiles are provided in Appendix 2 of the SIS. None of these communities are listed as EECs. The SIS states that the two natural vegetation communities are of moderate conservation significance. OEH agrees with the identification of vegetation communities on site.

Table 4 of the SIS provides an assessment of the likelihood of occurrence of EECs on site. The DGRs did not include any subject EECs. The SIS concludes that of the eight EECs that were assessed, all were considered unlikely to occur within the study area as the vegetation communities recorded in the study area are not consistent with the floristic composition, structure, soil type, and/or landscape position of these EECs. Additionally, these EECs have not been mapped in the study area or its vicinity by other regional vegetation mapping projects.

The Save Manly Dam Catchment Committee's submission included the claim that the vegetation on site includes Duffys Forest Ecological Community (an EEC), given the presence of lateritic soils. However, the SIS claims the subject site does not support the preferred shale lenses and lateritic soil type for this community (see SIS Appendix 7). Council's Senior Environment Officer has informed OEH that he considers that lateritic soils are present, but the vegetation on site does not conform to this EEC as it is too heathy in structure.

According to Table 14 of the SIS, the proposal will lead to the loss of approximately 3.52 ha of native vegetation, including 1.12 ha (96%) of the Coastal Sandstone Mallee Heath, 2.4 ha (48%) of Sydney North Exposed Sandstone Woodland and 0.14 ha (100%) of the disturbed vegetation. As stated in the SIS, there are also likely to be a number of indirect impacts on the vegetation that is remaining, including habitat fragmentation and isolation, degradation, increased nutrients and increased noise and light pollution.

**Consideration of alternative options**

Alternatives were explored through a feasibility study 'Manly Vale Public School Upgrade – Gateway Business Case' (Department of Education 2014). This assessment determined that the proposal submitted in 2015 was the preferred option. The Preliminary SIS (June 2015) included a layout which required clearing of 4.37 ha of vegetation for construction and APZs. This proposal was not supported by Council and in August 2016, in response to representations by Council to lessen the footprint of the buildings and required APZs, amended plans and reports were submitted with an alternative design layout which reduced the area of clearing by 0.35 ha. OEH considers that the consideration of alternative options was adequate and all reasonable measures have been applied to avoid impacts.

**Consideration of proposed ameliorative measures**

Section 7 of the SIS recommends a number of ameliorative measures, which include:

- preparation of a vegetation clearing protocol and a fauna translocation protocol;
- pre-clearing surveys to be undertaken by trained ecologists;
- preparation of an APZ, Vegetation and Weed Management Plan, to be implemented in perpetuity;
- best practice erosion and sediment control measures;
- fencing of sensitive areas to delineate 'no go' zones.

These ameliorative measures are detailed in the Landscape Management Plan, which includes performance criteria to measure the success of the actions. OEH considers that these measures are adequate and all reasonable measures have been applied to ameliorate impacts.

Appendix C of Council's Assessment Report (December 2016 and attached as Appendix 5) includes the recommended conditions of consent. The conditions include a number of ameliorative measures, the most relevant of which are:

- **Condition 1**: the development must be carried out in compliance with the SIS (September 2016) and the Landscape Management Plan (September 2016);
- **Condition 13**: all plants used in the APZ landscaping for this development must be local native species as per the species list in the Landscape Management Plan.
- **Condition 14**: Section 88b Instrument for Bushland Conservation - Native vegetation identified as 'Retained Vegetation Islands' in Figure 5 of the Landscape Management Plan is to be retained, conserved, rehabilitated and managed in accordance with the Landscape Management Plan at all times in perpetuity via public positive covenant in favour of the Council pursuant to Section 88e Conveyancing Act 1919.
- **Condition 19**: Prior to any works being undertaken on site, a Project Ecologist is to be engaged for the duration of the onsite works and issue compliance certification as per the requirements of this consent.
- **Condition 20**: prior to commencement of any works on site, temporary mesh fencing is to be erected to ensure native vegetation is protected during and after construction.
- **Condition 21**: a permanent fence is to be erected to delineate the Inner Protection Zone from the Outer Protection Zone and adjoining bushland reserve
- **Condition 22**: a minimum of 20 nest boxes suitable for Eastern Pygmy-possum are to be installed in the adjoining bushland reserves and are to be monitored and maintained during APZ management and monitoring events.
- **Condition 26**: all vegetation clearing must be undertaken in accordance with the Vegetation Clearing Protocols
- **Condition 27**: during vegetation clearance the Project Ecologist is to supervise the relocation of displaced fauna, and tree hollows are to be salvaged and placed in adjoining reserve.
- **Condition 28**: all staff are to be inducted by the Project Ecologist on the Landscape Management Plan
- **Condition 60**: The actions, performance criteria, monitoring, targets and recommendations detailed in the Landscape Management Plan must be followed in full.

**Consideration of proposed offsetting measures**

The SIS includes a Biodiversity Offset Strategy (BOS) for the proposal (SIS Appendix 7). The BOS has used the BioBanking Assessment Methodology 2014 (BBAM) to develop the offset strategy, i.e. to calculate the quantum of Biobanking credits that would be required to offset the proposal. It is noted that application of the BBAM is OEH's preferred method of calculating offsets.

The BOS states the following number of credits would be required to offset the proposal:

| Entity requiring offset | Number of credits |
|---|---|
| Coastal Sandstone Mallee Heath (HN540) | 58 |
| Sydney North Exposed Sandstone Woodland (HN566) | 53 |
| Eastern Pygmy-possum | 70 |
| Red-crowned Toadlet | 7 |

Investigations of potentially suitable offset sites were undertaken as part of the BOS, including lands owned by Hornsby Shire Council at 64 Crosslands Road Galston. The Department of Education has entered into a Memorandum of Understanding (MoU) with Hornsby Council to purchase and retire credits from this site to offset the proposal and a copy of the executed MoU has been forwarded to OEH. The BOS states that the proposed offset site would generate the following number of credits:

| Entity at proposed offset site | Credits generated | Suitable as an offset for | Number of surplus credits |
|---|---|---|---|
| Scribbly Gum - Hairpin Banksia - Dwarf Apple heathy woodland on hinterland sandstone plateaux (HN582) | 87 | Coastal Sandstone Mallee Heath (HN540) | 29 |
| Sydney North Exposed Sandstone Woodland (HN566) and Coastal Enriched Sandstone Dry Forest (HN586) | 86<br>717 | Sydney North Exposed Sandstone Woodland (HN566) | 750 |
| Eastern Pygmy-possum | 605 | Eastern Pygmy-possum | 535 |
| Red-crowned Toadlet | 118 | Red-crowned Toadlet | 111 |

The BOS states that Council intends to submit a Biobank application for the Crosslands Road site. As an application has not yet been submitted, it should be noted that OEH has not verified whether the site will generate these types or quantum of credits, and whether the trading of credits is within the variation rules of BBAM.

In July 2016, the Department of Education wrote to OEH seeking endorsement of the Department's offset strategy for the MVPS proposal. In this letter, the Department committed to purchase and retire an adequate number of credits to offset the MVPS proposal, either from the Galston site or from credits on the Biobanking register. OEH responded in August 2016 that the offset strategy was endorsed, provided that:

1. if the credits are not available on the register, DoE will seek the required credits from alternative sites.
2. The steps in the offset strategy should be completed prior to any impacts occurring. If this is unachievable, the offsets should be secured within 12 months of consent being granted.

The letter noted that if OEH has a concurrence role in the MVPS proposal, and OEH intends to grant concurrence, the concurrence conditions will include that the offsets must be secured prior to the issuing of the construction certificate. If OEH can be satisfied that this is legitimately unachievable, OEH will require that the offsets must be secured within 12 months of consent being granted.

The letter also noted that it is assumed that if the MVPS is approved, the consent authority will ensure the species and ecosystem credits from the impact site and the offset site/s are matched, in accordance with the BBAM, unless agreed to by OEH.

OEH's August 2016 letter is attached for reference (Appendix 6).

It is noted that the recommended consent conditions (Appendix 5) do not include any conditions in relation to offsetting. Therefore, if concurrence were to be granted, the concurrence would need to include the following conditions to ensure that offsetting occurs in accordance with the requirements in OEH's August 2016 correspondence:

1. impacts to vegetation communities and threatened species are to be offset through the purchase and retirement of the appropriate number of ecosystem and species credits, as calculated by an accredited Biobanking assessor, and in consultation with OEH.
2. offsets must be secured prior to the issuing of the construction certificate, unless otherwise agreed to by OEH, in which case the offsets must be secured within 12 months of consent being granted.
3. the consent authority must ensure the species and ecosystem credits from the impact site and the offset site/s are matched, in accordance with the BBAM, unless agreed to by OEH.

**Conclusions**

It is possible that the current proposal will have a significant effect on the RCT and the EPP. However, it is not considered that the proposal will reduce the viability of these species across their range, or lead to their extinction. It is also considered that the proposal will not reduce the viability, or accelerate the extinction of any other threatened species, populations or ecological communities. The proposal meets OEH's offsetting principles, as all reasonable measures have been applied to avoid and ameliorate impacts, and commitment has been given that any unavoidable impacts are to be offset through the purchase and retirement of ecosystem credits. This is considered a reasonable outcome given the zoning of the land and the social and economic need for the proposal, as discussed below.

## 4 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Section 79B(5)(g) of the EP&A(A) Act requires that the Director-General consider the principles of ecologically sustainable development as defined in the objects of the *Protection of the Environment Administration Act 1991*. The principles of ecologically sustainable development, and how these principles have been applied in the assessment of this proposal, are as follows:

a) *The precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

There is some uncertainty in regard to the success of some of the ameliorative measures, as discussed above. However, the assessment has taken a precautionary approach and assumed total loss of 3.65 ha of native vegetation and fauna habitats on site.

b) *Inter-generational equity - namely, that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.*

The protection and active management of the threatened species habitats on site and within offsite Biobank sites in perpetuity, should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

c) *Conservation of biological diversity and ecological integrity.*

Similarly, the retirement of an adequate number of BioBanking credits should ensure conservation of biological diversity and should enhance ecological integrity.

d) *Improved valuation and pricing on environmental resources*

The principle of improved valuation and pricing of resources seeks to overcome the inefficient allocation of environmental resources that occurs due to market failure by ensuring that the appropriate value of these resources is recognised and considered in decision making. In this respect, it should be recognised that environmental resources have economic values and that there is a trade-off between the economic benefits associated with the development and the economic benefits provided by the natural environment that will be foregone. The economic benefits associated with the natural environment include use values, together with non-use values such as option values, bequest values and existence values.

The conditions of consent and concurrence represent an explicit recognition of the values of the environmental resource impacted by the proposal, whether these values are considered in biological or economic terms.

## 5 SOCIAL AND ECONOMIC CONSEQUENCES

Section 79B(5)(h) of the EP&A(A) Act requires the Director-General to consider the likely social and economic consequences of granting or not granting concurrence. Granting concurrence can include granting concurrence with or without conditions. To facilitate this assessment, it is necessary to clearly identify the distinction between the social and economic impacts of particular activities, policies and programs.

Economic

Economic consequences refers to the net effect of the development proposal on the local or regional economy. The proposal is for the purpose of improving educational facilities at an existing educational establishment and as the SEE states, it is generally consistent with the requirements of the Warringah LEP 2011 and the State Environmental Planning Policy (Infrastructure 2007). The SEE states that the proposal will result in short term and medium term employment opportunities during the construction works, and will maintain employment opportunities for teachers and other professions and persons at the school. The proposal is unlikely to result in the displacement of employment or create any adverse economic trade impacts upon the locality. The economic consequences of not granting concurrence to the proposal would not impact the applicant but may impact the local economy.

Social

Social consequences refers to the net effect of the development proposal on community well-being. The Statement of Environmental Effects states that the social benefits of the proposal include that the long term educational needs of the Manly Vale area will be met, the students will have facilities that are consistent with educational standards, and it will result in better human capital outcomes (i.e. morale, state of mind, etc) by providing permanent facilities rather than demountables which could have a detrimental impact (i.e. perception of care, worth, temporary status, etc).

## 6 REASONS FOR THE DIRECTOR-GENERAL'S DECISION

Following consideration of the species impact statement and the other matters provided for under Section 112D(1) of the EP&A Act, I have decided to grant concurrence subject to the conditions in Section 7 of this report, for the following reasons:

- while the proposal will reduce the bushland effect of the site, the reduction equates to a relatively minor proportion (0.5%) of the collective area of bushland available in the locality, particularly within the Manly Warringah War Memorial Park Reserve and Condover Reserve;
- reasonable attempts have been made to avoid and ameliorate impacts, through alterations to layout and through implementation of measures such as the retained vegetation islands;
- the proposed works will result in some clearing of local vegetation and removal of threatened species habitats but on balance, when weighed against the significant public benefit that will result from the provision of new schooling for a growing population, the proposal is considered to be in the broader public interest;
- the impacts on vegetation communities and threatened fauna species are to be offset with the purchase and retirement of Biobanking credits in accordance with the BioBanking methodology. This will involve the purchase and retirement of the following quantum and types of credits, that match the rules under the BioBanking methodology, unless otherwise agreed to by OEH:
    - 58 HN540 ecosystem credits;
    - 53 HN566 ecosystem credits;
    - 70 Eastern Pygmy-possum species credits; and
    - 7 Red-crowned Toadlet species credits
- the proponent has agreed that offsets will be secured prior to the issuing of the construction certificate, unless otherwise agreed to by OEH, in which case the offsets will be secured within 12 months of consent being granted;

- Appendix C of Council's Assessment Report includes a number of measures to ameliorate impacts on biodiversity, and these are to be included as conditions of consent.

## 7 CONDITIONS OF CONCURRENCE

This concurrence is granted subject to the following conditions:

1. nest boxes installed for the Eastern Pygmy-possum are to be monitored and maintained as part of the implementation of the Landscape Management Plan
2. once the applicant has received confirmation from OEH that species and ecosystem credits have been retired, the applicant will forward a copy of that confirmation to Council and Greater Sydney Region of OEH.