



181 Allambie Rd  
Allambie Heights

**SUBMISSION AGAINST Revision application No: 2021/0006**



Greg Wallis







## Introduction

This submission has been prepared by Greg Wallis in order to voice my **strong objections** to the proposed Development Application for 181 Allambie Road, Allambie Heights.

Despite Councils' previous rejections of the application, the Applicant (Allambie Heights Village Ltd) has again sought to reagitate the matter and made an application to Northern Beaches Council to review a determination pursuant to Section 8.2 of the Environmental Planning and Assessment Act 1979. The review of determination relates to DA2020/0552 for the 'Demolition works and construction of a Seniors Living Development'.

The development application was refused development consent by the Northern Beaches Local Planning Panel (NBLPP) on 18 November 2020 and again before that in 2018. The reason for refusal was given as:

*1. The proposed development is contrary to the Environmental Planning and Assessment Act 1979 NSW having regard to s 4.15 (1)(b), (c) (d) and (e) given the insufficient information provided with the development application to address the likely impacts of the development on the adjacent natural environment, the suitability of the site and matters raised by the public with respect to the likely impacts that would be caused.*

Of critical importance in the reasoning is the reference to 'likely impacts of the development on the **adjacent** natural environment'. This is a point which the Applicant has failed to address in its Biodiversity reports which have almost entirely focused on the site itself, rather than the adjacent Manly Dam Reserve.

The Applicants comment (page 7 Planning Ingenuity Report 1 Feb 2021) seems to support their view that any impacts on the Manly Dam Reserve are outside their scope of responsibilities.

*'It is noted that the significant majority of comments made by resident objectors during the NBLPP meeting were aimed at development surrounding and impacting on the Manly Dam Reserve land that was well beyond the scope of the subject development proposal and more generic in nature as to environmental concerns'*

The purpose of this submission is to provide further information to Council as to the potential effects of the Applicants proposal on the adjacent bushland reserve of Manly Dam. It demonstrates the relatively pristine status of the waterways immediately downstream of the proposed development and how these may be threatened by upstream development.

Again I implore Council to uphold their previous determination and reject the Applicants application.



## Site analysis and context

The subject site is located in the headwaters of Curl Curl Creek and is immediately adjacent to a significant public bushland reserve called Manly Warringah War Memorial State Park, otherwise known as Manly Dam. The site comprises one allotment fronting Allambie Road with the legal description of Lot 2615 in DP 752038. The site is Crown Land (ie owned by the public) managed by the Department of Industry/Lands and is currently leased to Allambie Heights Village Ltd. The location of the site is shown in Figure 1 which is a Google Earth image that clearly shows the site adjacent to a large bushland reserve in the headwaters of Curl Curl Creek.

The majority of the site is mapped as Waterways and Riparian Lands (Warringah DCP 2011) which is based on the riparian buffer around Curl Curl Creek (Warringah Creek Management Study (WCMS) 2004). The site possesses a first order stream, which flows in a southerly direction. This stream forms part of the Curl Curl Creek/Manly Dam catchment, which according to the Warringah Creek Management Study 2004, is a Category A Catchment. It is one of only 3 Category A creeks in Warringah. It is

characterised as having “very high ecological value; with less than 10% connected impervious area. This provides a high level of connectivity of natural vegetation in the floodplain and riparian zone of Curl Curl Creek and reasonable habitat for dispersal of native terrestrial fauna species. Geomorphic diversity is also very high, providing a wide range of habitats and supporting excellent native species richness. Curl Curl Creek and its tributaries also provide high landscape and passive recreation value to the area.

In addition, the site and catchment is known habitat to a range of native and threatened fauna species including the Eastern Pygmy Possum, the Red Crowned Toadlet and the Powerful Owl which were all recorded on the site itself.

The site is currently a retirement village known as William Charlton Village, but the Applicants proposal seeks to significantly extend the original footprint of buildings and hardstand on the site which I believe has the potential to significantly impact on the adjacent bushland areas contained within the Manly Dam War Memorial State Park.

Figure 1: An overview of the upper catchment of Manly Dam and Curl Curl Creek showing the proposed development site at 181 Allambie Rd in pink. Note the clear line of darker vegetation that follows the creek line down the slope from the development site to where it joins the main channel of Curl Curl Creek before eventually flowing into the open water of the dam.

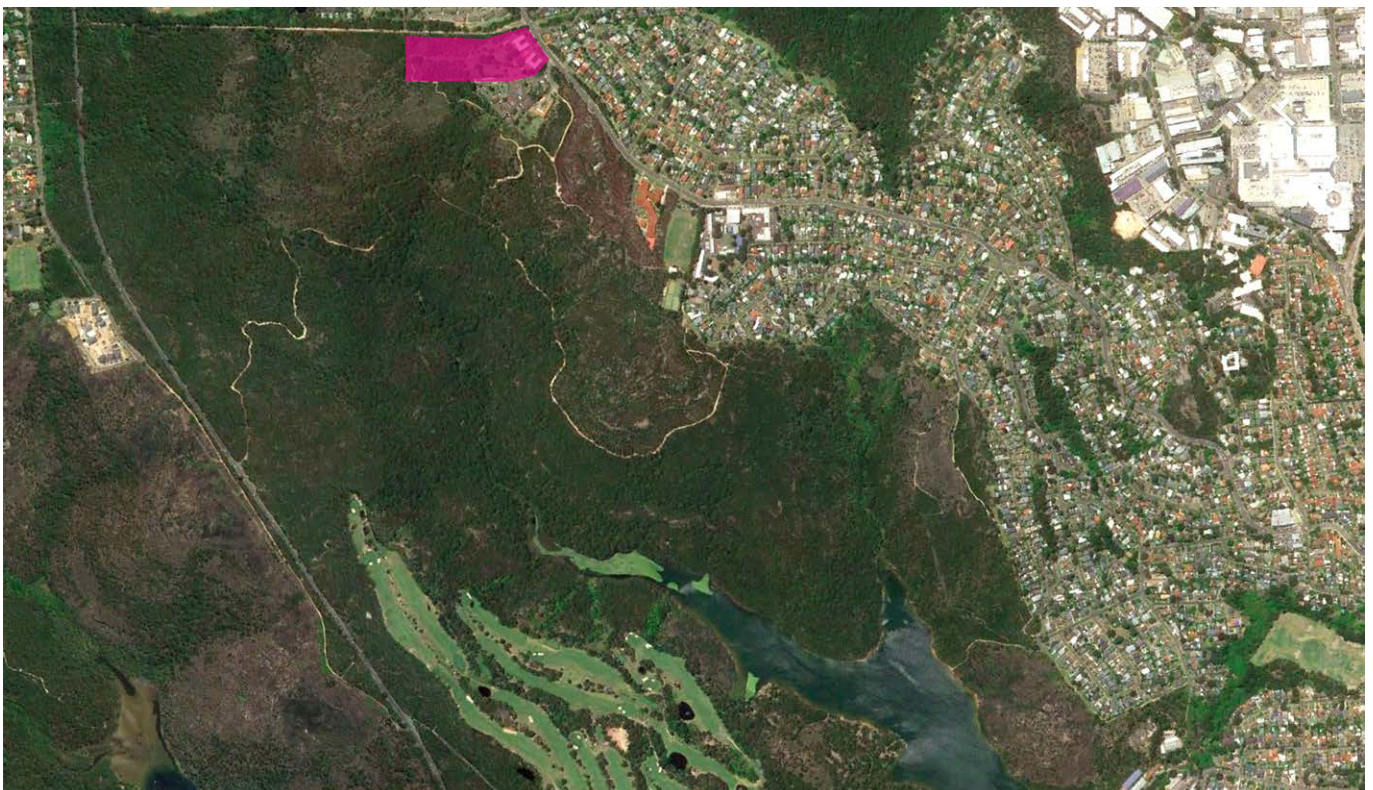






Figure 2. Shows various locations around the site and immediately adjacent to the site on 181 Allambie Rd. Most photos were taken during wet weather in March 2021 and show several drainage points along different drainage lines on the site. Note the rock outcrops and rapid fall off of the creek from the site to the valley below (taken during a dry period).

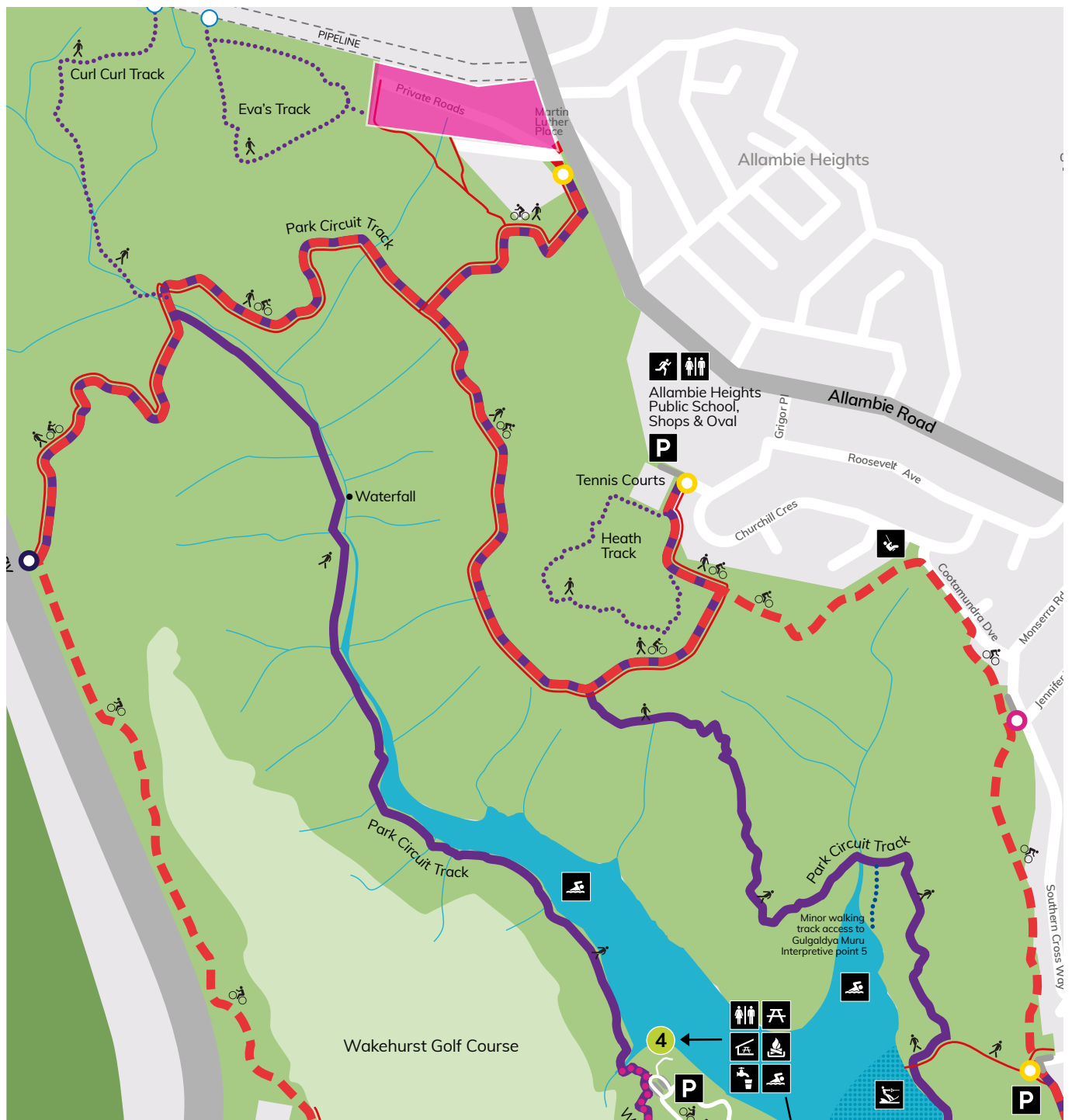
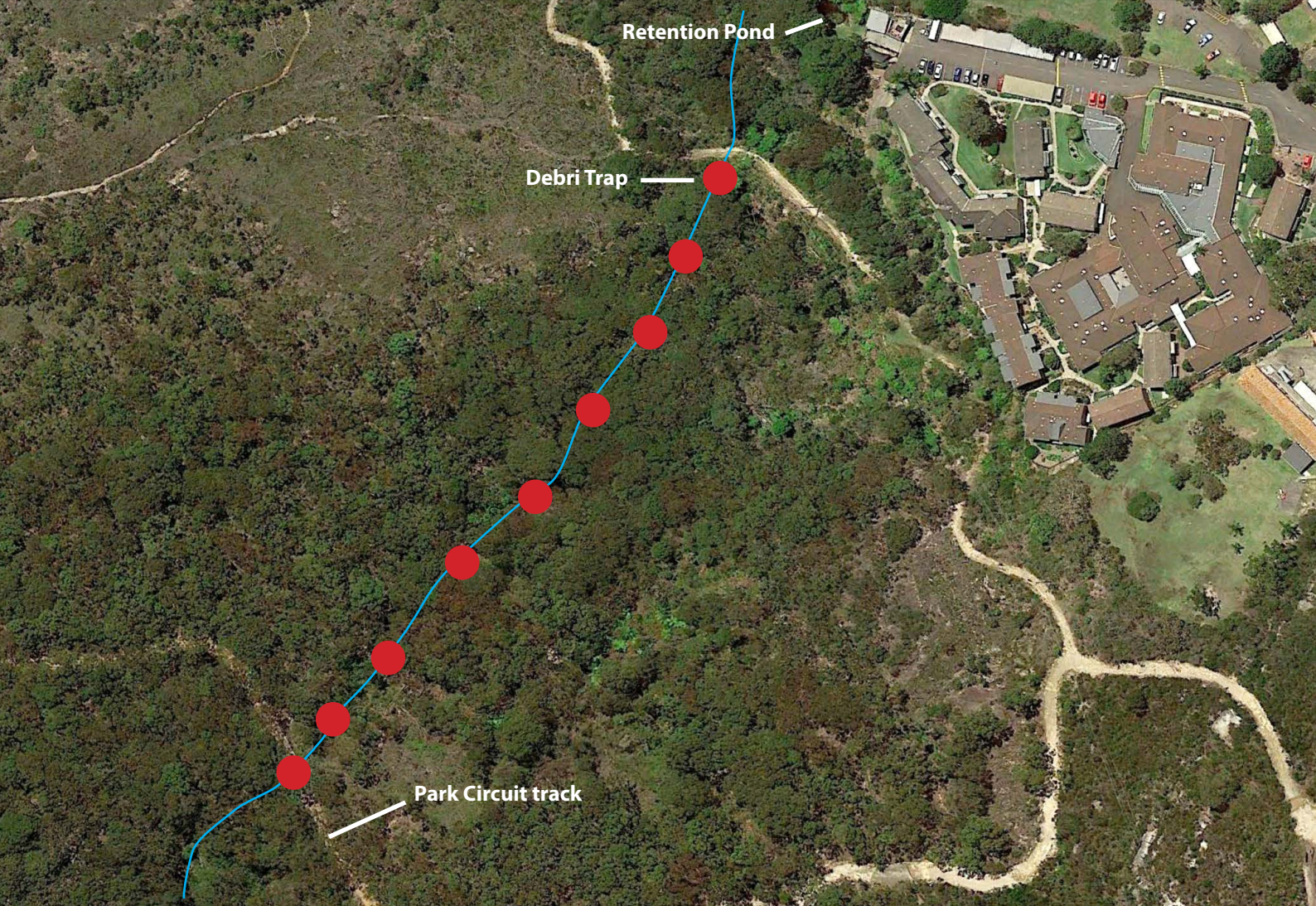


Figure 3. An overview of the upper catchment of Manly Dam and Curl Curl Creek showing the walking tracks and creek lines within part of the reserve. The proposed development at 181 Allambie Rd is shown in pink. Note the well defined First Order stream starting on the site that then travels in a south south-westerly direction downstream off the ridge before joining with the main Curl Curl Creek right in the middle of prime Climbing Galaxias habitat. The location of walking tracks provide a reference point for images on the following pages.

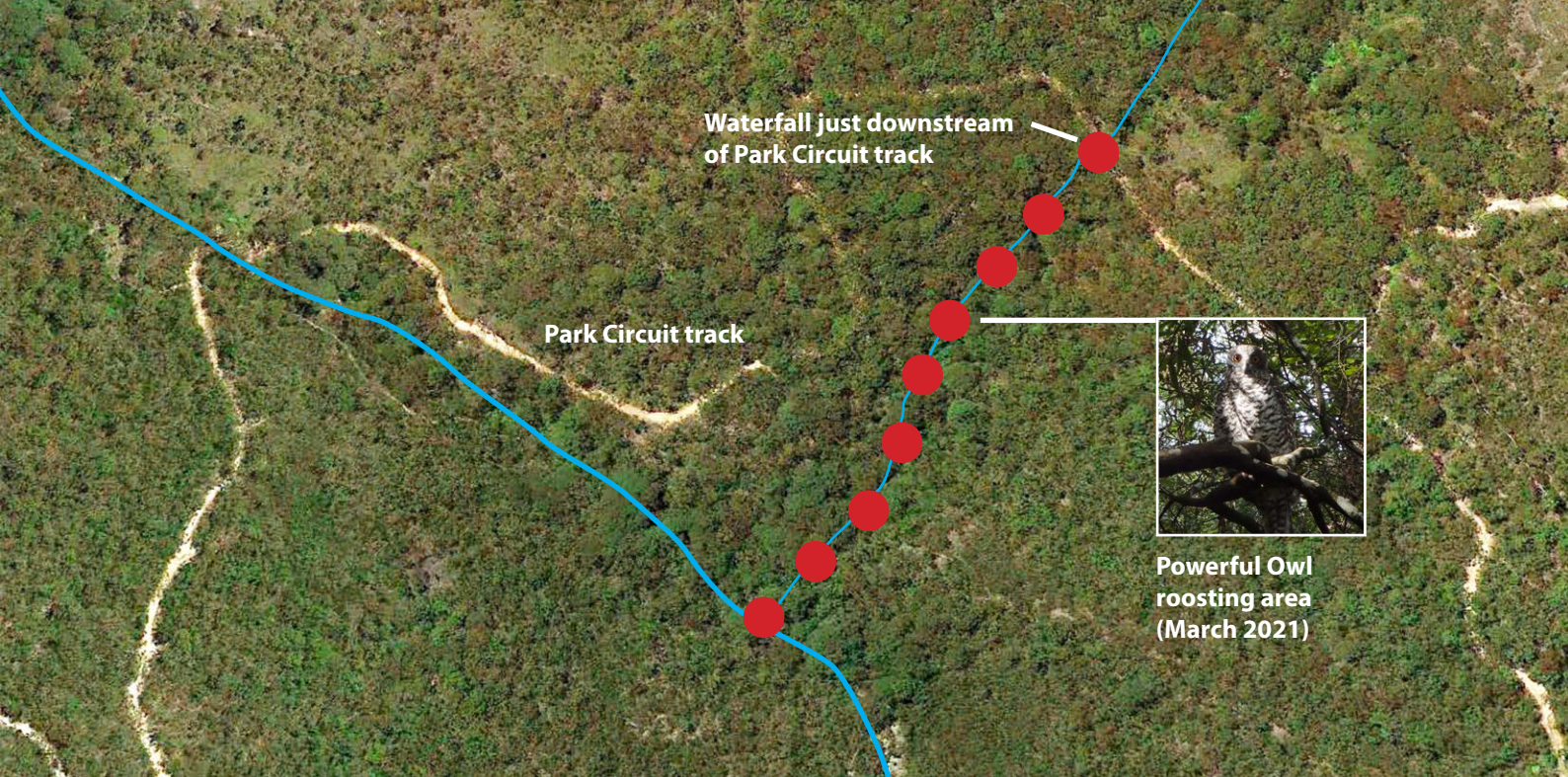




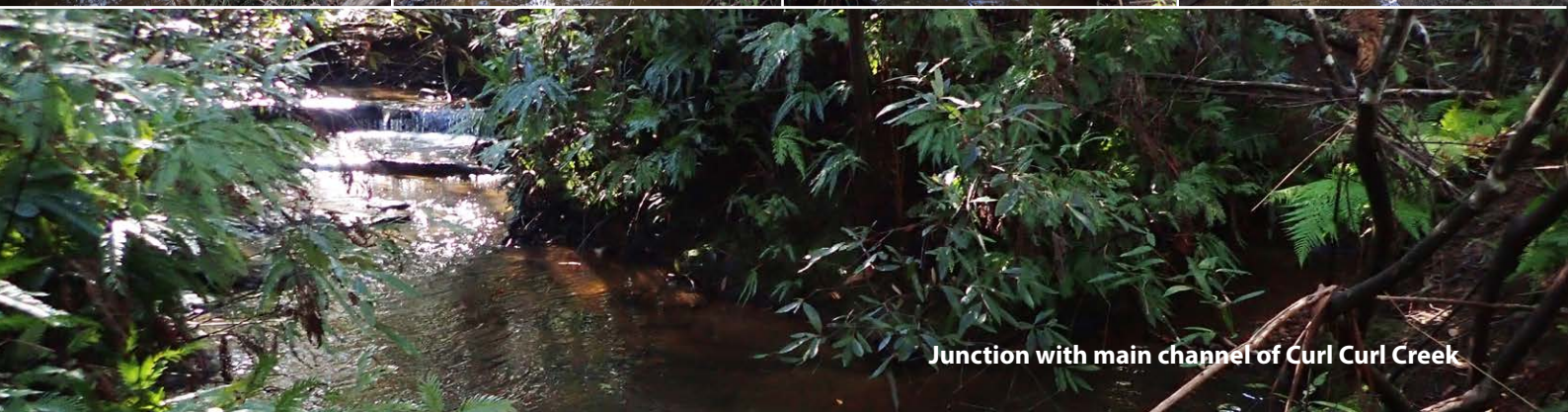
Images taken downstream of the site between the retention pond and the crossing of the Park Circuit track showing a relatively pristine natural waterway. Bottom 2 images show creek crossing of the Park Circuit Walk during dry and wet periods. (March 2021)







Images taken downstream of the site between where the creek crosses the Park Circuit track and the junction with the main branch of Curl Curl Creek showing a relatively pristine natural waterway with intact riparian vegetation. During rainfall events and wet periods there is a direct link between the proposed building site and the prime Climbing Galaxias habitat in the main channel of Curl Curl Creek(March 2021).







The Climbing or Broad-finned Galaxias (*Galaxias brevipinnis*) photographed in-situ in the headwaters of Curl Curl Creek by Jodie Rowley. These small native fish are a remnant population that is the last remaining population in the Greater Sydney area. They require cool clean water free of exotic fishes and are confined to the rocky headwater pools and riffles of Curl Curl Creek.

## Serious shortcomings in both the Biodiversity Assessments

### Aquatic environment and waterways

In light of the images and information presented on the preceeding pages which demonstrate a relatively pristine waterway immediately downstream, I have serious concerns about the potential impact of the proposed development on the aquatic environment within the Manly Dam War Memorial State Park.

Both the Biodiversity Development Assessment Report (BDAR) (May 2020) and the earlier Biodiversity Management Plan (February 2020) fail to address or consider any off site downstream impacts of the proposed development on the Curl Curl Creek/Many Dam water catchment. Even a dedicated and separate Waterways Impact Report prepared by the same company (Total Earth Care) fails to address potential downstream impacts on aquatic fauna.

The majority of the proposed site is mapped as Waterways and Riparian Lands(Warringah DCP 2011) which is based on the riparian buffer around Curl Curl Creek (Warringah Creek Management Study (WCMS) 2004). There are 3 drainage lines on the site, which have all been artificially altered. The main drainage line – referred to as 'Drain 1' in the documents is mapped as forming part of the upper headwaters of Curl Curl Creek within the Manly Creek sub-catchment (WCMS 2004). Council has determined that the beginning of Curl Curl Creek is a culvert on the site just below the existing road.

A statement by the Councils own assessing officer in the Natural Environment Referral Response Document said "according to the Warringah Creek Management Study 2004, the site possesses a first order stream, which flows in a southerly direction. The creek forms part of the Curl Curl Creek/Manly Dam catchment and according to the Creek Management Study is a 'Category A' Catchment which is characterised as "very high ecological value""

While the Biodiversity assessments make a point that the beginning of Curl Curl Creek is now highly modified channels that fail to provide



much in the way of significant aquatic habitat, they have completely ignored the potential downstream effects that could potentially arise from site runoff, pollutants, siltation etc. The report does acknowledge the potential for “downstream degradation of aquatic habitats” (Table 21 p112. May 2020) but fails to address what fauna there is downstream and how and what it might be affected by.

According to the Biodiversity documents supplied, there has been no field assessment of the downstream aquatic fauna, nor it appears has there been any desktop literature reference to important documents such as:

Salkavich, L., Cumbo, B and S.Ku (2002) Manly Dam Galaxias Action Plan: A Plan aimed at the Protection of the *Galaxias brevipinnis* population in Manly Dam

Fong. M and Nou. T (2001), The diversity of Benthic macro invertebrates within the creeks of the Manly Dam catchment In: Freshwater ecology report of 2001. Department of Environmental Sciences, University of Technology Sydney

Boey A (1997). Manly Dam catchment water quality studies: report for the preparation of a plan of management for Manly Warringah War Memorial Park. Department of Land and Water conservation, NSW.

Given it has been well known for some time (since at least 1999 and widely reported in the media) that there is a small relict population of Climbing Galaxias (*Galaxias brevipinnis*) in the headwaters of Curl Curl Creek – and that the site for this DA is in the headwaters of that creek – it is **incredulous** that any biodiversity management plan could be prepared without referencing this population and any potential threats posed to it! To the best of my knowledge, this is the only landlocked population of the species that occurs within the greater Sydney region, and it appears to be just hanging on. These fish require cool, clean, well oxygenated water and an abundant supply of aquatic invertebrates such as mayflies and caddisflies to feed on. They do not live in the open waters of the dam and are confined to the rocky headwater habitats upstream of the open dam waters.

Recent surveys by freshwater ecologist Sony Ku point to a contraction of their range within the catchment from what was 3 tributaries a few years ago to just the main headwater channel now. This makes protection of this population even more important, as one event such as pollution or a sediment pulse could wipe out the entire population, and what was prime habitat would not be able to be recolonised as there are no nearby populations to provide a source. The creek would end up essentially fishless above the waterfall! This has occurred many times in Victorian populations of Galaxiid fishes and currently poses a threat to several populations down there.

Potential threats to this fish and downstream aquatic habitats which are not addressed in the Biodiversity assessments include:

- Increased siltation from upstream vegetation removal and site works resulting in gravel and rocky creek

bottoms becoming smothered in silt, rendering them unsuitable for the small aquatic invertebrates that the fish feed on, and unusable as spawning sites for the fish. Smothering or infilling of substrate with silt and coarse sand may therefore prove catastrophic. Deteriorating water quality through increased sedimentation/siltation is also a major threat to the health of Galaxias populations, particularly when the populations are small and isolated as is the case with the Curl Curl Creek population of Climbing Galaxias. Siltation can also cause increased water turbidity and changes to water chemistry such as increased temperature and lower dissolved oxygen levels, particularly after sediment pulses. Poor water quality can lead to fish mortality (especially in eggs, larvae and young juveniles). Despite assurances from a previous developer, there is well documented evidence of uncontained sedimentation runoff from the site of a recent development in the catchment at Manly Vale School. Small aquatic insects and other macroinvertebrates requires cracks and holes under rocks in which they can hide. If these cracks and insticities fill with sand and silt then the area becomes unsuitable as a habitat for these species. Fish also require such areas to spawn their eggs in. Siltation is a major issue in many creeks and river systems and has been responsible for the local extinction of many species here in Australia.

- More impermeable surfaces upstream (as a result of hardstand development) significantly increase runoff which can include pollutants such as detergents (eg car washing), herbicides (eg Roundup/Glyphosate used in gardens), petrochemicals (car oils), increased nutrient loads (eg garden fertilisers which then result in algal blooms) and pesticides (termite sprays etc). These are real world threats. The potential catastrophic hazards of urban pesticide use and the risks associated with direct stormwater connections between urban areas and natural waterways was highlighted by a Bifenthrin (termiticide) incident in Jamison Creek at Wentworth Falls in the upper Blue Mountains in 2012; I suggest you contact Blue Mountains City Council about that one! ([https://www.bmcc.nsw.gov.au/sites/default/files/document/files/Jamison\\_Creek\\_Bifenthrin\\_contamination.PDF](https://www.bmcc.nsw.gov.au/sites/default/files/document/files/Jamison_Creek_Bifenthrin_contamination.PDF)). Increased runoff also changes the drainage profile, with water quickly channelled off site rather than slowly percolating into the soil to recharge the water table, and perched water tables in the Hawkesbury Sandstone country are critical habitat for the threatened Red-crowned Toadlet.
- Increased water temperature from upstream vegetation removal and flows across exposed hardstand areas which ultimately results in lower dissolved oxygen levels in the creek. Cold water holds much more dissolved oxygen than warm water. Climbing Galaxias and Spiny Crayfish (*Euastacus* spp) require cool well oxygenated water to survive.
- Increased potential for feral fish and exotic water plants to be introduced into the headwaters via upstream runoff containment areas, eg retention ponds and discarded exotic pet fish/plants.





Figure 2. The Sydney Giant Spiny Crayfish (*Euastacus spinifer*) lives to as old as many people and is the top order aquatic predator in Curl Curl Creek.



Figure 2. The Sydney Spiny Crayfish (*Euastacus australasiensis*) is a slightly smaller species that tends to be found higher up in the catchment along drainage lines.

In the conclusion and recommendations of the separate Waterways Impact Report (Feb 2020) prepared by the same company, it states that the potential impacts of the proposed development include:

- Increased erosion and sedimentation, especially during the construction phase;
- Increased stormwater runoff during the operational phase due to an increase in impermeable surfaces;
- Modification loss of habitat and connectivity due to the removal of vegetation;
- Decrease in water quality and increase in nutrient loads;
- Potential contamination of natural areas downstream including Manly Dam Reserve;
- Increase in peak stormwater flows; and
- Increased stormwater runoff being directed into Council's drainage systems.

It then goes on to state that these potential impacts MAY BE significantly reduced by the implementation of number of mitigation measures. Assessors should note the very careful choice of words: MAY BE instead of WILL BE.

In addition to the Galaxiids in the creek, the headwaters are also home to a variety of other aquatic animals which rely on high quality water. Most notable of these is the dominant predator in the creek, the Sydney Giant Spiny Crayfish (*Euastacus spinifer*) which can reach more than 40cm in length, 1kg in weight, and live for 50 years or more. Its much smaller relative the Sydney Crayfish (*Euastacus australasiensis*) is also found in the catchment headwaters in smaller waterways and drainage areas upstream of the larger pools occupied by the Sydney Giant Spiny Crayfish. Much of its habitat relies on recharging of the water table that supplies drainage lines below sandstone ridges.

In the Feb 2020 biodiversity report Table 10 provides a list of species recorded during previous surveys – when and where is not specified! In that table is a reference to a 'yabby' in the 'southern creek'. This is an unfortunate mistake as there are no 'yabbies' in the Manly Dam catchment;

they only occur naturally to the west of the Great Dividing Range, and are very different to Spiny Crayfish. Yabbies (*Cherax* spp) are short lived, mature at around 18 months of age, breed profusely, and tolerate poor quality water conditions – they are completely different to Spiny Crayfish which need high quality water, don't breed until 7–10 years of age, produce much fewer offspring and live to be as old as many people!

From the above it is abundantly clear that there is a need for a proper assessment of the aquatic habitats downstream of the proposed development to be carried out, and this needs to be done by a suitably qualified and experienced aquatic ecologist who can properly assess potential threats posed by the development.

I note that Council still has serious concerns about various aspects of the proposal and would like to remind the council of those matters.

In the Water Management Referral Response of 29 06 2020 council states "The Landscape plan, engineering plans and stormwater management report has been reviewed. In general the information provided is insufficient to review the proposed water quality treatment chain. The development application is not supported."

In the Natural Environment Referral Response the Council officer comments that "Note that the riparian is still within the APZ zone and the proposal is not fully satisfying the Council's DCP and Protection of Waterway and Riparian Lands Policy, however the water quality treatment chain (bioretention and pond) and the proposed vegetation regeneration might mitigate the impact of the APZ zone"

As an aside, I have spent considerable time doing underwater filming in the headwaters of Curl Curl Creek and have produced several short videos which showcase the creek and its inhabitants. I would strongly encourage all members of the DA assessment committee to view these videos as they give a very different insight into the creek, one which is not normally available to those who make assessments from looking at maps, diagrams and tables. You can view the videos on YouTube via the following links:



Sydney Giant Spiny Crayfish (*Euastacus spinifer*)  
<https://www.youtube.com/watch?v=M6b44WweEo0>



Eastern Water Dragons feeding on Firetail Gudgeons: Sydney, Australia  
<https://www.youtube.com/watch?v=NjP3YPW75JU>



Native Fish: Firetail Gudgeon (*Hypseleotris galii*), Manly Dam, NSW  
<https://www.youtube.com/watch?v=a1qQ1Jew8x4>



In the headwaters of Curl Curl Creek, the Climbing Galaxias should be regarded as a keystone species. Its requirement for cool clean water means that while the population remains healthy, so too will a range of other species that rely on this waterway.

Everything possible should be done to ensure that this unique population of ancient fish remains protected so that future generations can enjoy this fish and the beautiful surroundings of its environment.

## Terrestrial Fauna assessments

Whilst the vegetation associated with the site appears to have been well documented, the same cannot be said for the fauna which has been poorly reported in the Biodiversity Assessments provided and does not in any way convey an accurate representation of the diversity of species associated with the site. As a former biologist and herpetologist, reptiles are of particular interest to me and I grew up spending time running around the Manly Dam bushland chasing them. It appears no effort at all has been put into documenting the reptiles on site and there is little reference of the diverse fauna that inhabits the adjoining bushland areas of Manly Dam Reserve.

A reported diurnal survey was conducted by 2 staff over one day on 19 February 2020 in ideal weather conditions and returned only 13 species of birds and 2 mammals. (Table 9 Feb 2020) Not one reptile was reported! Table 10 in the same document refers to species observed during previous TEC Surveys but fails to state when or where these surveys were carried out, and no reference is provided. Of

note, the only reptile included in that list is a small lizard, the Common Dwarf Skink (*Menetia greyii*), which has never previously been recorded from the greater Sydney area, and is only found in the drier country west of the Great Dividing Range. Sadly along with the 'yabby', this appears to represent yet another misidentification.

More concerning is the 54 person hours spent doing targeted surveys on site on various days/nights between February and April 2020. (Table 14 May) This returned a total of 54 vertebrate species (birds, mammals, frogs and reptiles) which are listed in Appendix G (May 2020). Incredulously, only 1 species of reptile was recorded in that time, the large and very conspicuous Eastern Water Dragon (*Intelligama leseurii*). Such a poor result for finding reptiles beggars belief and grossly misrepresents the situation. Whilst any wildlife survey can only be expected to record a small percentage of the animals that inhabit a site – and the report includes a disclaimer for this (4.3.4. Targeted survey limitations) (May 2020) – it seems here that no effort



was put into recording any reptiles on site. At the times the surveys were done (summer and autumn) there would have been at the very least an abundance of small skinks of several different species scurrying through the leaf litter and around trees that could have readily been observed by even the most casual observer. Any effort put into actually searching should have revealed much more as there are at least 20 different species of reptiles that have been recorded from Manly Dam and the surrounding bushland.

While it is inevitable that numerous small species will be killed during clearing and construction operations associated with the proposed development, of more importance is the continued reduction in available habitat to some of the larger species which, although they may not live on the actual proposed development site, will include it within their home range. Species such as the Lace Monitor (*Varanus varius*) and the Rosenbergs Monitor (*Varanus rosenbergii*) – both types of large goannas – travel considerable distances daily patrolling their territories in search of food, mates and rivals. As has been the case over the last few decades, there has been a constant ‘nibbling away’ at the edges of the Manly Dam bushland by developers, and at some stage we reach a critical point where there is not enough bushland left to sustain populations of these large predators. Have we reached that point yet? I don’t know, but I would guess we have already passed it, but if not then we are very close.

The report (May 2020) notes that the threatened Powerful Owl (*Ninox strenua*) – a very large and powerful predator of possums – was recorded on site but notes that breeding habitat was not present and hence it could not be used as a credit species. While this may well be the case, the owl was clearly there for a reason, and it was most likely using the area to hunt. Again like the monitors, it is a large predator that needs a large home range or territory. A reduction of suitable habitat within its territory may render that area unviable and the owls may disappear from the Dam area. Powerful owls have been recorded breeding in the Manly Dam Reserve and in late March 2021 I personally recorded a Powerful Owl using a daytime roost in dense riparian vegetation only 400m from the proposed development site. The Development Proposal includes the removal of a large number of trees; the trees provide homes to possums which in turn provide food for the owls.



The Rosenbergs Monitor (*Varanus rosenbergii*) is a large free ranging predatory lizard, that like it's close relative the Lace Monitor requires a large home range to hunt and find mates.



A Powerful Owl (*Ninox strenua*) roosting during the day in dense riparian vegetation along the creekline just 400m downstream of the proposed development site.



## **Other concerns about this proposal**

The focus of my submission has been on biodiversity and other environmental concerns as that is my area of expertise as a former zoologist, however there are a number of other concerns that I briefly wish to mention. These include, but are not limited to the following:

- This is an inappropriate development for an area adjoining the Manly Dam War Memorial State Park, and if the review overturns Councils earlier determination then it sets a dangerous precedent.
- The land is in a bush fire prone area and the mandatory Asset Protection Zone (APZ) relies upon land that is part of the Manly Dam Reserve and this is based on outdated Fire Safety legislation. The APZ on the development site also removes many mature trees and habitat for protected fauna;
- As already stated earlier in this submission, the proposal has unreasonable impacts on the high value natural environment;
- Manly Dam is almost the last body of freshwater in Sydney where it is still possible to swim in clean water.
- The development is on Crown Land; land that should be set aside for the benefit of the community – not for the benefit of an elite few in the proposed 24 luxury apartments;
- The proposal is not in accordance with the Plan of Management 2014 for MWWMSP which encourages surrounding Crown land to be added back to and included in the park.

## **Conclusion**

We as a community, cannot afford to lose more bushland, however small those parcels of land may be, to further development and encroachment on the Manly Dam Reserve and the catchment of Curl Curl Creek.

Any proposed development for the site at 181 Allambie Rd should be restricted to the existing hardstand footprint, or preferably, as the site is on Crown Land, it should be returned to, and included in the Manly Dam Reserve.

Thankyou for taking my submission into account and I again implore the Council to uphold its earlier determination and refuse the development application.



