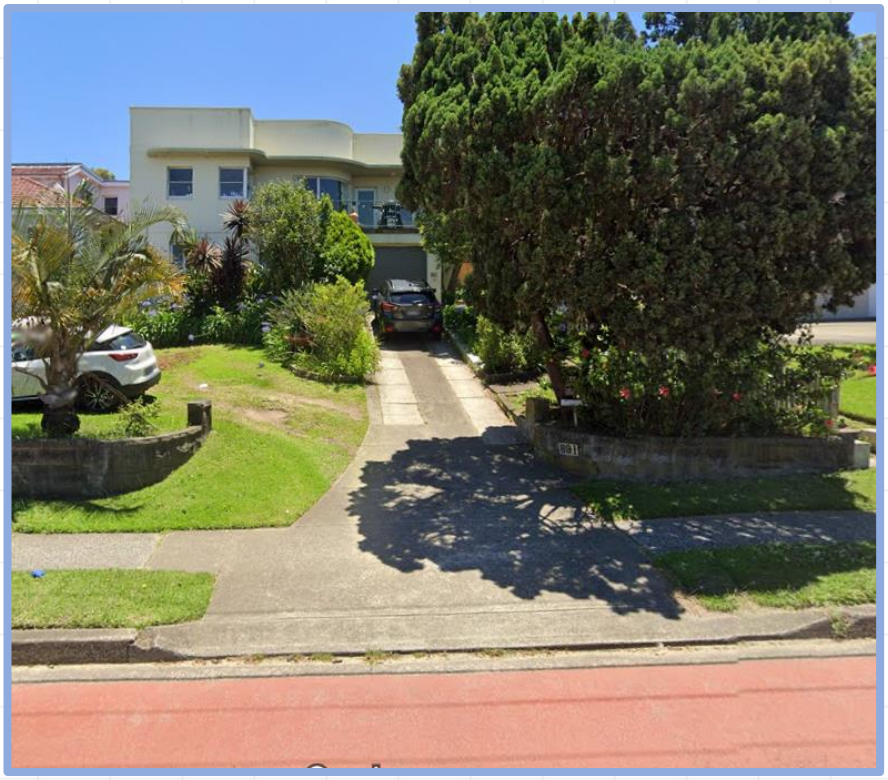

METRO PLANNING

WATERWAY IMPACT ASSESSMENT REPORT

Demolition of existing dwelling & associated structures & Construction of three (3) storey dwelling

No. 891 Pittwater Road, Collaroy

September 2022

CONTENT

1.0 INTRODUCTION

Metro Planning Services has been engaged by G J Gardner Homes to prepare a Waterway Impact Assessment Report (WIS) in support of a development application which seeks consent for demolition of the existing dwelling and construction of a new three (3) storey dwelling on a site described as No. 891 Pittwater Road, Collaroy.

A WIS was required in association with this development application as eastern front half of the subject site falls within the Warringah Council Local Environment Plan 2011 (LEP) Riparian Lands mapping layer that extends around Dee Why Lagoon. The application is therefore subject to the requirements of the Council's Protection of Waterways and Riparian Land Policy (PL 740) and the Warringah Development Control Plan 2011.

The WIR report is intended to assist Northern Beaches Council in its assessment of the development application and incorporates the following details:

- Waterway Analysis;
- Assessment of Impacts;
- Impact mitigation measures;

The report should be read in conjunction with the following supporting material:

- Architectural Plans prepared by KJR Drafting;
- Survey Plan prepared by Richards & Loftus Surveying Services;
- Statement of Environmental Effects Report prepared by Metro Planning Services;
- BASIX Certificate prepared by KJR Drafting;
- Concept Stormwater plans prepared by Nastasi and Associates;
- Bushfire Report prepared by Bushfire Consultancy Australia;
- Geotechnical Assessment prepared by AscentGeo Consulting Geotechnical Engineers

2.0 WATERWAY ANALYSIS

2.1 Ecological value of waterway and riparian land

The proposed construction works occur within the catchment of Dee Why Creek, however they are located away from any riparian zone, creek centreline, wetland or wetland buffer. Pittwater Road forms a significant barrier between the site of proposed works and all riparian features.

Dee Why Creek feeds the Dee Why Lagoon. This riparian system has been scored as 'Very Low' under the Warringah Creek Management Study (Warringah Council 2004). This is due to a long history of disturbance and the highly urbanised nature of the catchment. Despite this the Lagoon foreshore supports remnant bushland including Endangered Ecological Communities (EEC) listed under the NSW Threatened Species Conservation Act 1995 (TSC Act) which support a wide array of indigenous species.

In the most recent Lagoon Health Card Report, Dee Why Lagoon was graded as class 'C' indicating that some assessed water quality measures met state benchmarks for part of the year (Warringah 2014/15). This 'fair' health rating is a drop from previous years and thought to be reflective of heavy rains which introduced increased sediment and nutrients. As the majority of the catchment surrounding Dee Why Lagoon is surrounded by impervious surfaces, notably Pittwater Road and surrounding private residences, the Lagoon is subject to the influence of stormwater runoff.

2.2 Nature and extent of proposed activities

The proposed works are illustrated on the architectural plans prepared by KJR Drafting.

The proponent proposes to enhance the impervious surfaces of their property through installing additional roofing and paving. The extent of this is considered insignificant within the scale of the catchment. Furthermore, given the currently developed nature of the site, the current existence of hard surfaces within and around the property, and the existence of functioning stormwater management systems within the subject property and its immediate surrounds, it is considered unlikely that the proposed works will cause any significant effect upon the Dee Why Lagoon system.

Impacts upon local waterways (if any) are likely to be indirectly related to increased impervious surfaces and their influence on localised stormwater runoff. Within the landscape context the extent of works within the subject site are considered small changes that will result in no impact to the riparian land, bank stability, biodiversity water quality within the Dee Why Lagoon catchment.

Constructed garden beds and introduction of new plantings planned post construction phase will aid in the dissipation of water runoff on site. These also provide an opportunity to increase biodiversity on site.

3.0 ASSESSMENT OF IMPACTS

3.1 Erosion and sedimentation

The proposed works require excavation. Appropriate erosion and sedimentation mitigation measures should be implemented to ensure no sediment is lost off site and into the Dee Why Lagoon Catchment through water transportation.

Ensure that adequate erosion and sediment measures are in place at all times during construction activity by following the recommendations of 'The Blue Book' (Landcom, 2004).

On-going erosion issues on site are considered a low to moderate risk due to the landscaping design implemented, that incorporates hard surfaces, dense gardens, mulched garden beds and no areas of bare soil. The proponent will practice on-site sediment capture through best practice Water Sensitive Urban Design.

3.2 Stormwater

Observing the precautionary principle, it is recommended that the proponent continues to monitor the response of stormwater flows on and off site. This should be conducted as part of the proposed Bushland Management Plan.

In the unlikely event of perceived adverse effects from storm water output exacerbated by the proposed development (e.g. confirmed enhanced nutrient enrichment and weed growth or native dieback) an Ecologist and an urban stormwater disposal specialist should be consulted to advise the best approach to action.

The proponent does not intend to apply on-site stormwater detention (OSD) technical specification or infiltration system as part of the proposal. All surface runoff will be directed to existing stormwater disposal systems associated with the existing dwelling.

3.3 Removal of Vegetation

Removal of vegetation is a low risk threatening process within the Warringah Council designated Group C catchments. The proposed works do not require the removal of any native vegetation or trees, thus this factor will not be exacerbated.

3.4 Planting and Landscaping

The existing garden is dominated by lawn and various plants. The proposed works will be undertaken in accordance with a Landscape Plan and identifies suitable native plants which will see a net biodiversity gain for the site and surrounds.

3.5 Use and Storage of Chemicals

Pesticides, herbicides and other chemicals on the subject site have the potential to flow into the riparian system if they are not managed appropriately. Use of such chemicals around the outside of the dwelling

should be kept to a minimum, this includes the suite of chemicals that are available for everyday domestic use. Chemicals used on site should be used, stored away from any drains and under the guidance of an appropriate Material Safety Data Sheet (MSDS). Any chemical spills on site should be immediately cleaned up by following the requirements of the relevant MSDS.

4.0 IMPACT MITIGATION MEASURES

The following tables outline specific impact mitigation recommendations for the proposed works.

Outcome 1: Protecting native species and communities (e.g. migration routes, habitat, streamflow, water quality)	
Performance criteria	**Mitigation measures**
Maintain natural habitats	Compensatory habitat provided for any disturbance in the form of native ground covers, small trees and shrubbery incorporated into the Biodiversity Management Plan
Provide fauna movement routes	Incorporate habitat through native ground covers, small trees and shrubbery incorporated into the Landscape Plan.
Prevent unnatural erosion or sediment deposition	No increase in peak flows and No increase in total sediment loads (follow the recommendations of 'The Blue Book' (Landcom, 2004).
Maintain acceptable water quality	Implement Biodiversity Management Plan Sore chemicals according to MSDS and clean up any spills
Maintain connectivity between waterways and floodplains	(Does not apply)

Outcome 2: Prevent loss of natural diversity through protecting waterway and riparian vegetation (including non-native vegetation)	
Performance criteria	**Mitigation measures**
Avoid introducing plants or animals which may displace natural species	Construction activities must not introduce new weeds species or allow weeds to spread (see Biodiversity Management Plan Narla, 2016b)
No increase in nutrient loads to riparian soils and waterways	Use of best practice Water Sensitive Urban Design to capture net increase in nutrient loads following development
Avoid displacing species by habitat changes	Compensatory habitat provided for any disturbance in the form of native ground covers, small trees and shrubbery incorporated into the Biodiversity Management Plan
Protect natural areas from contamination	No activities will take place within the riparian buffer which may contaminate soils or vegetation Storage of chemicals, fuels or oils on the subject site will be undertaken per an MSDS
Prevent the loss of any rare or threatened natural features	There will be no loss of any species, community or habitat listed under relevant conservation legislation There will be no loss of natural features identified in the DCP/LEP as rare or threatened
Protect downstream protected areas, such as National Parks	Ensure no noxious weeds exist on the subject site that can spread propagules downstream Ensure no chemicals are used/spilled that can enter stormwater systems and enter local waterways. Follow MSDS at all times and clean spills using appropriate methods immediately. Ensure existing stormwater disposal systems can accommodate any enhanced hard surface runoff from the development.

Outcome 3: Minimise damage to public and private property by waterway processes through maintaining the relative stability of the bed and banks	
Performance criteria	**Mitigation measures**
Avoid increases in peak channel flows and sediment exports for events smaller than 2 year Average Recurrence Interval (ARI).	On-site sediment capture through best practice Water Sensitive Urban Design
Avoid local erosion at stormwater outlets	Infiltration and on site detention with minimal use of pipes or lined drains AND
Avoid export of weeds from private properties into waterways	No disposal of garden refuse will take place in riparian lands.
Channel banks are not over steepened	(Does not apply to this project)
Channel banks are stable	(Does not apply to this project)

Outcome 4: Preserve natural ecological processes	
Performance criteria	**Mitigation measures**
Streamflow and water quality are natural	No artificial barriers to capture water No removal of water for consumptive use (except riparian use rights) Impervious surfaces offset by stormwater management controls so there is no net change in peak loads or pollutant loads in waterways Site design adheres to best practice Water Sensitive Urban Design principles AND On-site uses do not involve specific risks to water quality (e.g. chemicals, organic materials, exposed soil, effluent generation)
Aquatic and riparian vegetation are undisturbed and unmodified	All development is outside riparian zone
Aquatic and riparian fauna habitat and movement corridors are retained	Improvement to stream bed or banks

Outcome 5: Create opportunities for public access and recreation in waterway corridors	
Performance criteria	**Mitigation measures**
Provide public access along creek corridors where appropriate	Set back developments to allow public access within riparian buffers

5.0 CONCLUSION

The proposal provides no adverse terrestrial or aquatic biodiversity impacts on Dee Why Lagoon or surrounding coastal zone. Neither will there be any increased risk of downstream contamination or sedimentation or significant local increase in stormwater runoff, such that the downstream ecosystem could be adversely impacted.

Accordingly, it is recommended that Council support the proposal and grant development consent subject to conditions of consent.