10th November, 2020 **J4379**

Attention: Michelle Ramjan

Jackson Teece c/- mramjan@jacksonteece.com

Re: 8 Forest Road, Warriewood

Further to our discussions for the above site and the existing house in the western corner of the site.

1.0 The House

The site is not listed as a heritage item by Schedule 5 Part 1.0 of the *LEP 2014*. Nor is it located in a heritage conservation area.

The house lies on land originally granted to Thomas Collins in 1859 and which was surveyed for subdivision by Henry Halloran in 1906. Lot 1, on which the subject site is located, was purchased in 1914 by William Thompson, an assistant engineer. It was then transferred to brothers Ernest and Harold Wilson in 1923 as tenants in common.

A mortgage was taken out that same year to the Newtown and Enmore Starr-Bowkett Building Society No. 3, which would indicate the construction of the subject dwelling. Warriewood, however, does not appear in the *Sands' Directories* until 1930. In this year, there were two individuals living along Forest Road: William Layton and Phillip Jenkins. In the absence of any street numbering, it is unclear if either is related to the subject site. The Wilsons were orchardists so the land may have been leased to others for the purpose of market gardening. Ernest Wilson only appears in the 1930 *Sands' Directories* as living in nearby Vineyard Street.



Figure 1. The house and land in 1960.



Figure 2. The house and land in 2000. Note the increase in bush regeneration.

Harold Wilson died in 1951. The title record shows the land was leased by the surviving brother Ernest Wilson, first in 1953 to Bartol Nemcich, then sold outright to Nemcich in 1956. The earliest available aerial photograph dates from the 1960s (attached). The title record states Nemcich was also a market gardener. Following his death in 1987, the subject site was transferred to Ivan and Vinko Nemcich as tenants in common. They are the last known owners prior to computerisation of records. The images below show the site as it existed in the 2000s, possibly having retained the same use as a market garden

The current site was the location of market gardens, contained in hot houses, until recently when the site was cleared.

It is noted that the house is in very poor condition having been left vacant for some time.

2.0 The Proposal

It is proposed to remove the house from the site and to retain the sandstone foundations that surround it to create a benched area for passive recreation as part of the overall development.

Retention of the house was considered and rejected for the following reasons:

- 1. The house is in very poor condition, extensive restoration would need to take place.
- 2. In the context of the development, there is no viable use for the house without considerable modification to allow for fire protection.
- 3. Its immediate environmental context would be destroyed to make it useable.
- Condition of the House

The house is dilapidated and has been extensively vandalised. From its period of construction, considerable asbestos contamination is anticipated. Given the level of dilapidation, in conjunction with the restraints outlined below, restoration of the house is not considered viable or desirable.

• Fire Protection

Anderson Environment and Planning have provided expert advice in the form of a letter dated 7 August, 2020 with regard to fire protection, particularly with regard to bushfires. Figure 1 of this report shows the large area of native forest that would need to be removed in order to create an Asset Protection Zone (APZ) around the house. In addition, a further area of ground clearance would be required meaning the removal of the native ground layer.

In addition, considerable modification of the house would be required to meet Level 3 construction in accordance with AS 3959.

See Appendix 1.

Environmental Protection

Anderson Environment and Planning have also provided expert advice in the form of a letter dated 12 August, 2020 with regard to ecological advice. It notes:

The removal of the native vegetation above will have significant impacts to both the flora and fauna. The LGA has limited native vegetation as a result of urbanisation. This vegetation provides foraging, roosting and nesting habitat for native fauna, whilst

providing connectivity to the vegetation in north, south and west of the site. Given the developed nature of the LGA preserving such wildlife corridors is essential in maintaining existing flora and fauna populations.

The vegetation also assists in the overall catchment health by reducing surface runoff, increasing water quality for both surface and groundwater.

Loss of this vegetation also would result in a significant impact on the visual amenity of the site.

The proposed development has limited vegetation removal to preserve this unique landscape in an urban environment.

In these circumstances the ecological impacts will outweigh any heritage value of the house.

See Appendix 2.

3.0 Mitigation Measures

The following measures should be undertaken to mitigate the removal of the house:

- 1. An archival recording of the house and its surroundings should be undertaken to Heritage Office Standards.
- 2. An interpretation strategy and plan should be undertaken to provide an historic context for the removed house and the surrounding area.
- 3. Where possible sandstone walls and footings should be retained and reused as part of the landscaping of the area surrounding the site of the house. This material may also be used to illustrate the general size and layout of the house on its site.

Please do not hesitate to contact me on 02 8076 5317 if you have any questions.

Yours faithfully,

James Phillips | Director

APPENDIX 1 – FIRE PROTECTION



Our Ref:1377.03Date:7 August 2020

Jackson Teece

Attention:Micelle RamjanVia emailmramjan@jacksonteece.com

Dear Michelle,

RE: Bush Fire Advice Letter 8 Forest Road Warriewood, NSW

Anderson Environment and Planning (AEP) has been commissioned by Jackson Teece to prepare advice on the required bush fire standards that are required to retain the existing dwelling located at 8 Forest Road Warriewood, NSW (Lot 1 DP 5055).

Existing Dwelling

The existing dwelling is located in the south west of the site located, it is currently in a dilapidated condition and there are signs of it being used by squatters. Given the current proposal for residential subdivision and apartment buildings, the retention of the existing house is being investigated.

This report outlines the options available for the house to be retained to meet current bush fire standards. The NSW Rural Fire Services (2019) *Planning for Bush Fire Protection, 2019,* outlines two options that can be utilised if the house is to be retained;

- Meet the required Asset Protection Zones (APZ); and
- Meet the required BAL construction standards in accordance with AS 3959:2018.

An investigation has been undertaken for both options.

Vegetation Analysis

The site and surrounds occur within the Greater Sydney Region, with existing vegetation subsequently classified with a Fire Danger Index (FDI) of 100 as NSW Rural Fire Service (2017) NSW Local Government Areas FDI.

Vegetation to the north exists as a narrow band along Narrabeen Creek and is identifiable by its dense tree layer dominated by the warm temperate rainforest tree, *Ceratopetalum apetalum* (Coachwood) above a sparse to moderate groundcover of ferns. This vegetation comprises elements of both Map Unit RF02 'Coastal Sandstone Gallery Rainforest' and RF03 'Coastal Warm



Temperate Rainforest' of OEH (2013). This vegetation has been classified as "Rainforest" under the PBP (2019).

Vegetation to the north, south and west found on the mid to upper escarpment slopes, exists in relatively poor condition and has been subject to canopy thinning and comprises a dense sub canopy regrowth of *Allocasuarina littoralis* (Black Sheoak) and Lantana thickets. This community resembles both Map Unit DSF04 'Coastal Enriched Sandstone Dry Forest' and (to a lesser extent) DSF06 'Coastal Sandstone Foreshore Forest' of OEH (2013). This vegetation has been classified as "Forest" under the PBP (2019).

Slope Analysis

Examination of slope class to relevant hazard areas reveals for all aspects – Flat/ upslope towards 'Forest' Vegetation.

Required Asset Protection Zones

Based on the information presented previously, the following derivation of required Asset Protection Zones (APZs) was concluded.

Consideration of APZs relates to the identified offsite hazards.

<u>Fire Danger Index Rating = 100</u>

North, west and south

- Predominant Vegetation Forest
- Effective slope Flat/ upslope
- Required Minimum APZ 24m

Note that the derived APZ setbacks are based upon the need to conform to Level 3 construction as per AS 3959 for a building of Class 1 or 2 under the BCA. Construction standard options are discussed further in the report.

Figure 1 depicts the vegetation types and also demonstrates that areas of native vegetation that would be require to be removed to meet Asses Protection Zones (APZs).





Figure 1: Existing Dwelling Hazard Vegetation Location: Warriewood, NSW

Date: August 2020

Client: Warriewood Vale Pty Ltd

AEP Ref: 2063



Construction Standards – AS 3959-2018

The Australian Standard 3959-2018 Construction of buildings in bushfire prone areas, details six (6) levels of construction standards that are required for buildings, depending upon the expected impact of a bushfire from adjacent areas. These Bushfire Attack Levels (BALs) are measured from the edge of the hazard and incorporate vegetation type and slopes (see above) to determine the relevant distance for each BAL rating (and associated construction standard).

The relationship between the expected impact of a bushfire and the BAL rating is provided in **Table 1** below.

Bushfire Attack Level	Maximum radiant heat impact (kW/m²)	Level of construction standard under AS 3959-2018
Low		No special construction requirements
12.5	≤12.5	BAL – 12.5
19	12.6 to 19.0	BAL – 19
29	19.1 to 29	BAL - 29
40	29 to 40	BAL - 40
Flame Zone	≥40	BAL – FZ (Not deemed to satisfy provisions)

Table 1 - BAL Construction Standard

The BAL construction standards that apply to the subject site are as follows:

North, west and south - Flat/ upslope towards 'Forest' Vegetation

- <18m: BAL Flame Zone
- 18 to <24m: BAL 40
- 24 to <33m: BAL 29
- 33 to <45m: BAL 19
- 45 to <100m: BAL 12.5

These BALs are to be adopted as the minimum requirement for each specific zone. Any lessening of these requirements would require reassessment to ensure increased APZs are provided, or other acceptable mitigation measures are in place.

Figure 2 depicts the required BAL construction standards applicable for the proposed development.

Given the timeframe that the house was built it is highly unlikely that in its current form it will comply with current construction standards, requiring upgrades if it is to be retained, these have been summarised in the next section.





Figure 2: Existing Dwelling Required BALs and

APZ Location: Warriewood, NSW

Client: Warriewood Vale Pty Ltd

Date: August 2020

AEP Ref: 2063



Construction Standards for Flame Zone AS 3959-2018

The existing dwelling will need to have a certified builder determine the Fire Resistance Level (FRL) of the existing dwelling:

- Floors
 - **Standard:** Where the subfloor space is unenclosed, the floor system, including bearers, joist and flooring, shall— (a) have an FRL of at least 30/30/30 and the surface material shall be non-combustible; or (b) have the underside of the combustible elements of the floor system protected with a 30 min resistance to incipient spread of fire system; or (c) conform with AS 1530.8.2 when tested.
 - **Recommendations:** There are areas of the house where the subfloor is exposed due to damage or aging of mortar between sandstone blocks, this needs to be repaired to ensure the subfloor is fully enclosed or the above standards for the subfloor must be meet. Replacement sandstone may be required where repair will not allow for the standard to be meet.
- External Walls
 - Standards: The exposed components of external walls shall be as follows: (a) Non-combustible material including the following provided the minimum thickness is 90 mm: (i) Full masonry or masonry veneer walls with an outer leaf of clay, concrete, calcium silicate or natural stone. (ii) Precast or in situ walls of concrete or aerated concrete. (iii) Earth wall including mud brick. Or (b) A system conforming with AS 1530.8.2 when tested from the outside. Or (c) A system with an FRL of 30/30/30 or -/30/30 when tested from the outside. Or (d) A combination of any of Items (a), (b) or (c).
 - **Recommendation:** Investigation of the thickness of the existing sandstone need to be undertaken and if not 90mm will need to be replaced. The existing weatherboard must be checked by a certified person to determine if it contains asbestos, if yes this must be removed by suitably qualified person. Given the timeframe of construction it is likely that the external weatherboard cladding do not comply with the above standard and hence it is recommended that if the building is to be retained these are to be replaced with suitable material that meet the standard.
- Joints
 - **Standard:** All joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed.
 - **Recommendations:** Upgrades will need to be undertaken to ensure all joints meet this standard.



• Vents and Weepholes

- **Standard:** Vents and weepholes in external walls shall be screened with a mesh made of corrosion-resistant steel or bronze.
- **Recommendations:** All vents and weepholes must upgraded.

• Windows and sidelights

- **Standard:** Window assemblies shall— (a) be completely protected by a bushfire shutter that conforms with Clause 3.7 and Clause 9.5.1; or (b) the openable portion of the window shall be screened internally or externally with a screen that conforms with Clause 3.6 and Clause 9.5.2; and either— (i) the window system shall have an FRL of at least –/30/–; or (ii) the window system shall conform with AS 1530.8.2 when tested from the outside.
- **Recommendations:** All windows and assemblies either have approved shutters covering the entirety of the window and assemblies, or suitable screens are installed on the opening portion of the glazing and the rest of the window and assemblies be replaced to meet FRL of at least -/30/-.
- Doors Side hung (external)
 - **Standard:** Side-hung external doors, including French doors, panel fold and bi-fold doors, shall— (a) be completely protected by bushfire shutters that conform with Clause 3.7 and Clause 9.5.1. *or* (b) conform with the following: (i) All door systems, including door frames and doors with glazed panels, shall— (A) have an FRL of at least –/30/–; or (B) conform with AS 1530.8.2 when tested from the outside. (ii) Doors shall be tight-fitting to the door frame and to an abutting door, if applicable. (iii) Weather strips, draught excluders or draught seals shall be installed at the base of side-hung external doors. (iv) Seals shall not compromise the FRL or the performance achieved in AS 1530.4.
 - **Recommendations:** All doors and frames would need to be upgraded to meet the above or have approved shutters installed.

• Roof

• **Standard:** The following applies to all types of roofs and roofing systems: (a) The roof/wall and roof/roof junction shall be sealed either by the use of fascia and eaves linings or by sealing between the top of the wall and the underside of the roof and between the rafters at the line of the wall. They shall also be protected in accordance with Clause 3.6. (b) Roof ventilation openings, such as gable and roof vents, shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet conforming with Clause 3.6 and made of corrosion-resistant steel or bronze. (c) Roof-mounted evaporative coolers are not permitted in BAL—FZ.



• **Recommendations**: The roof will require extensive work to meet the requirements in Appendix H of AS 3959.2018, the diagram below has been extracted from Appendix H summarises the requirements.



- Eaves linings, fascias and gables
 - Standard: The following applies to eaves linings, fascias and gables: (a) Gables shall conform with Clause 9.4. (b) Fascias and bargeboards shall conform with AS 1530.8.2. (c) Eaves linings shall be— (i) a system with an FRL of -/30/30; or (ii) a system conforming with AS 1530.8.2; or (iii) a combination of Items (i) and (ii). (d) Eaves penetrations shall be protected the same as for roof penetrations, as specified in Clause 9.6.5. (e) Eaves ventilation openings shall be fitted with ember guards in accordance with Clause 3.6 made of corrosion-resistant steel or bronze. (f) Joints in eaves linings, fascias and gables may be sealed with plastic joining strips or timber storm moulds.
 - **Recommendations:** Given the time of construction it has been determined that all eaves linings, fascias and gables will be required to be upgraded.
- Water and Gas Supply
 - **Standard:** Above-ground, exposed water supply pipes shall be metal. External gas pipes and fittings above ground shall be of steel or copper construction having a minimum wall thickness in accordance with gas regulations or 0.9 mm whichever is the greater. The



metal pipe shall extend a minimum of 400 mm within the building and 100 mm below ground.

• **Recommendations:** All exposed water pipes are to be replaced with metal piping.

Overall Recommendations

This assessment has determined that if the existing building is to be retained it will require extensive upgrades to comply with current standards or native vegetation must be removed from the site.

We thank you for the opportunity to be involved in this project. Should you require any further details or clarification, please do not hesitate to contact the writer (0431 249 360) or AEP Principal Craig Anderson on 0412 681 581.

Yours faithfully,

ANDERSON ENVIRONMENT & PLANNING

NATALIE BLACK SENIOR ENVIRONMENTAL MANAGER 0431 249 360

APPENDIX 2 – ENVIRONMENTAL PROTECTION



Our Ref:1377.04Date:12 August 2020

Jackson Teece

Attention:Micelle RamjanVia emailmramjan@jacksonteece.com

Dear Michelle,

RE: Ecological Advice Letter 8 Forest Road Warriewood, NSW

Anderson Environment and Planning (AEP) has been commissioned by Jackson Teece to prepare advice on the ecological impacts associated with the clearing for the Asset Protection Zone (APZs) required for the existing dwelling at located at 8 Forest Road Warriewood, NSW (Lot 1 DP 5055).

Existing Dwelling

The existing dwelling is located in the south west of the site located, it is currently in a dilapidated condition and there are signs of it being used by squatters. Given the current proposal for residential subdivision and apartment buildings, the retention of the existing house is being investigated.

This report outlines the ecological impacts associated with the clearing for the APZ for the existing dwelling to meet current bush fire standards in accordance with NSW Rural Fire Services (2019) *Planning for Bush Fire Protection, 2019.*

Vegetation Analysis

Vegetation to the north exists as a narrow band along Narrabeen Creek and is identifiable by its dense tree layer dominated by the warm temperate rainforest tree, *Ceratopetalum apetalum* (Coachwood) above a sparse to moderate groundcover of ferns. This vegetation comprises elements of both Map Unit RF02 'Coastal Sandstone Gallery Rainforest' and RF03 'Coastal Warm Temperate Rainforest' of OEH (2013). This vegetation has been classified as "Rainforest" under the PBP (2019).

Vegetation to the north, south and west of the existing dwelling, exists in relatively poor condition and has been subject to canopy thinning and comprises a dense sub canopy regrowth of *Allocasuarina littoralis* (Black Sheoak) and Lantana thickets. This community resembles both Map Unit DSF04 'Coastal Enriched Sandstone Dry Forest' and (to a lesser extent) DSF06 'Coastal Sandstone Foreshore Forest' of OEH (2013).



Clearing area

To achieve the required APZs and BAL 40 construction standards 0.2ha of native forest would need to be required. If the proposal was to clear APZs for BAL 29 construction standards clearing 0.4ha of native forest would be required. This report has not investigated further clearing to reduce construction standards for BAL 12.5 as this would require clearing on adjoining land.

Figure 1 depicts the vegetation types and also demonstrates that areas of native vegetation that would be require to be removed to meet Asses Protection Zones (APZs) for BAL 40 and BAL 29 construction standards.

Impacts

The removal of the native vegetation above will have significant impacts to both the flora and fauna. The LGA has limited native vegetation as a result of urbanisation. This vegetation provides foraging, roosting and nesting habitat for native fauna, whilst providing connectivity to the vegetation in north, south and west of the site. Given the developed nature of the LGA preserving such wildlife corridors is essential in maintaining existing flora and fauna populations.

The vegetation also assists in the overall catchment health by reducing surface runoff, increasing water quality for both surface and groundwater.

Loss of this vegetation also would result in a significant impact on the visual amenity of the site. The proposed development has limited vegetation removal to preserve this unique landscape in an urban environment.

As the house decays further, there are risks to flora, fauna, soil and water as a result of hazardous chemical leachates.

It is recommended the vegetation be retained and other options be considered for the existing dwelling to preserve the vegetation within the site.

We thank you for the opportunity to be involved in this project. Should you require any further details or clarification, please do not hesitate to contact the writer (0431 249 360) or AEP Principal Craig Anderson on 0412 681 581.

Yours faithfully,

ANDERSON ENVIRONMENT & PLANNING

NATALIE BLACK SENIOR ENVIRONMENTAL MANAGER 0431 249 360





Figure 1: Existing Dwelling Hazard Vegetation and Clearing Location: Warriewood, NSW Date: August 2020

Client: Warriewood Vale Pty Ltd

AEP Ref: 2063

APPENDIX 3 - SITE PHOTOGRAPHS



Figure 3: Typical interior.



Figure 4: Kitchen.



Figure 5: The existing house.