





### **B3.17 Flood Hazard - Flood Category 1 - High Hazard - Residential Development: Multi Unit Housing Development**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by Flood Category 1 - High Hazard - P21DCP-BCMDCP069

#### **Uses to which this control applies**

- Group Building
- Multi-Unit Housing
- Residential Flat Building (2 storey)
- Residential Flat Building (3 storey)

#### **Outcomes**

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### **Controls**

##### Obtaining Flood Levels

~~To apply this control, the flood levels for the 1% AEP flood, Flood Planning Level (FPL) and Probable Maximum Flood (PMF) must first be established by:~~

- ~~• Obtaining Flood Advice using the 'Flood and Estuarine Levels Tool' from Council's Web site, or;~~
- ~~• An independent assessment undertaken by a Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8).~~

~~The Flood Planning Level and Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (ie the point on the land at which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.~~

##### Flood Risk Management Policy for Development in Pittwater

~~For additional information, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.~~

##### High Hazard Classification

An assessment through a Flood Risk Management Report is required to be undertaken by a Water Engineer for property subject to a High Hazard Classification to determine the extents within the site of the High Hazard Classification, the High Hazard Flood Storage Area and/or the High Hazard Floodway Area.

#### General to all Development

The following applies to all development:

All development or activities must be designed and constructed such that:

- There is no additional adverse flood impact on surrounding properties or flooding processes for any event up to the Probable Maximum Flood event and;
- There is no net decrease floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and; All foundation structures within the area of the property affected by the Flood Planning Level, and where the Flood Planning Level is equal to or greater than 500mm above the existing ground level, is to incorporate a suspended floor system on open pier/pile footings with openings in perimeter walls to allow for the flow of surface water and flood storage up to the level of the 1% AEP flood; and;
- All foundation structures within the area of the property affected by the Flood Planning Level, and where the Flood Planning Level is equal to or greater than 500mm above the existing ground level, it is to incorporate a suspended floor system on open pier/pile footings with openings in perimeter walls to allow for the flow of surface water and flood storage up to the level of the 1% AEP flood; and
- All structural elements below the Flood Planning Level shall be constructed from flood compatible materials; and
- All structures must be designed and constructed to ensure structural integrity for immersion and impact of velocity and debris up to the level of the 1% AEP flood. If the structure is to be relied upon for 'shelter-in-place' evacuation, then structural integrity must be ensured up to the level of the Probable Maximum Flood; and
- All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed to the Flood Planning Level; and
- The storage of toxic or potentially polluting goods, materials or other products which may be hazardous or pollute floodwaters, will not be permitted below the Flood Planning Level.
- To ensure the recommended flood evacuation strategy of 'shelter-in-place', it will need to be demonstrated that there is pedestrian access via a low flood hazard area to a 'safe haven' above the Flood Planning Level or 300mm below the level of the Probable Maximum Flood (whichever is the higher).

#### Flood Mitigation Works

Flood mitigation works that modify a Major Drainage System, stormwater system, natural water course, floodway or flood behaviour within the development site may be permitted subject to demonstration through a Flood Risk Management Report that:

- The flood mitigation works do not have an adverse impact on any surrounding property or flooding processes for any flood event up to the Probable Maximum Flood event; and,
- The flood mitigation works result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event. and,
- The flood mitigation works result in the protection of the existing and proposed development from a flood event to the minimum floor level requirement as defined in this control; and,



- The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc.).

Where flood mitigation works are undertaken to protect the development as set out above, the minimum floor level requirements of this control need not apply.

A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

Filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent floodwater ingress), enclosure of structures and/or construction of swimming pools

Activities that reduce the flood storage capacity of the property including additions to buildings, the filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent flood water ingress), enclosure of structures to prevent the ingress of flood waters (where the Flood Planning Level is greater than 500mm above the existing ground level) or the construction of above ground swimming pools, will only be permitted where it can be demonstrated through a Flood Risk Management Report that:

- there is no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event; and
- there is no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event.

New Development and Additions on land with a High Hazard Classification

Development is not permissible where the land is subject to a High Hazard Classification except where it can be demonstrated through a Flood Risk Management Report that building platforms, building envelope enclosures or carparking facilities and access:

- Are not adversely affected by any flood up to the Probable Maximum Flood event; and
- Result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- Result in no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event.

Floor Levels - New Development and Additions

**A. For portion of the land designated High Hazard Flood Storage:**

For the portion of the development affected by, or affecting the High Hazard Flood Storage area, all floor levels but excluding balconies (with open balustrades) shall be at or above, or raised to the Flood Planning Level.

**B. For portion of the land designated High Hazard Floodway:**

For the portion of the development affected by, or affecting the High Hazard Floodway, the structures must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all floors including balconies within the floodway area are at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of floodwaters under the building.

Floor Levels - Carparking Facilities

**A. For portion of the land designated High Hazard Flood Storage:**

The requirements for carparking facilities over the portion of the development, affected by or affecting the High Hazard Flood Storage Area, shall be as follows:

**Enclosed garage and enclosed car park:**

All floor levels shall be at or above the Flood Planning Level.

**Covered basement carparking facilities:**

All access, ventilation and any other potential water entry points shall be above the Flood Planning Level and a clearly signposted pedestrian access via a low flood hazard area to a 'safe haven' above the Flood Planning Level or 300mm below the level of the Probable Maximum Flood (whichever is the higher) separate to the vehicular access ramps, shall be provided.

**Open carpark areas (including covered carpark areas) and carports used for residential carparking:**

All floor levels / pavement levels shall be at or above the Flood Planning Level.

**Open carpark areas (including covered carpark areas) and carports used for visitors, staff and service delivery vehicles spaces:**

Are permissible at the existing ground level. Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event.

**B. For portion of the land designated High Hazard Floodway:**

The requirement for carparking facilities over the portion of the development affected by or affecting the High Hazard Floodway, shall be as follows:

**Open carpark areas and carports:**

Are not permissible within a floodway area.

**New Carparking Facilities:**

For the portion of the carparking facilities affected by, or affecting the High Hazard Floodway, the structure must be designed and constructed so as not to impede the floodway and must be elevated such that the level of the underside of all carpark floors within the floodway area are at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of the floodway under the building.



### **B3.18 Flood Hazard - Flood Category 1 - High Hazard - Shop Top Housing, Business and Light Industrial Development**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by Flood Category 1 - High Hazard - P21DCP-BCMDCP069

#### **Uses to which this control applies**

- Business Development - New Construction or Alterations and Additions
- Industrial Development - New Construction or Alterations and Additions
- Rural Industry
- Shop-Top Housing

#### **Outcomes**

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### **Controls**

##### Obtaining Flood Levels

~~To apply this control, the flood levels from the 1% AEP flood, Flood Planning Level (FPL) and Probable Maximum Flood (PMF) must first be established by:~~

- ~~• Obtaining Flood Advice for Property using the 'Flood and Estuarine Levels Tool' from Council's Web site, or;~~
- ~~• An independent assessment undertaken by a Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8).~~

~~The Flood Planning Level and Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (i.e. the point on the land on which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.~~

##### Flood Risk Management Policy for Development in Pittwater

For additional information, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.

##### High Hazard Classification

An assessment through a Flood Risk Management Report is required to be undertaken by a Water Engineer for property subject to a High Hazard Classification to determine the extents within the site of the High Hazard Classification, the High Hazard Flood Storage Area and/or the High Hazard floodway area.

#### General to all Development

The following applies to all development:

- All development or activities must be designed and constructed such that:
- There is no additional adverse flood impact on surrounding properties or flooding processes for any event up to the Probable Maximum Flood event and;
- There is no net decrease in floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- All foundation structures within the area of the property affected by the Flood Planning Level, where the Flood Planning Level is equal to or greater than 500mm above the existing ground level, is to incorporate a suspended floor system on open pier/pile footings with openings in perimeter walls to allow for the flow of surface water and flood storage up to the level of the 1% AEP flood; and
- All structural elements below the Flood Planning Level shall be constructed from flood compatible materials; and
- All structures must be designed and constructed to ensure structural integrity for immersion and impact of velocity and debris up to the level of the 1% AEP flood. If the structure is to be relied upon for 'shelter-in-place' evacuation then structural integrity must be ensured up to the level of the Probable Maximum Flood; and
- All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed to the Flood Planning Level; and
- The storage of toxic or potentially polluting goods, materials or other products, which may be hazardous or pollute floodwaters, will not be permitted below the Flood Planning Level.
- To ensure the recommended flood evacuation strategy of 'shelter-in-place' it will need to be demonstrated that there is pedestrian access via a low flood hazard area to a 'safe haven' above the Flood Planning Level or 300mm below the level of the Probable Maximum Flood (whichever is the higher).

#### Flood Mitigation Works

Flood mitigation works that modify a Major Drainage System, stormwater system, natural water course, floodway or flood behaviour within the development site may be permitted subject to demonstration through a Flood Risk Management Report that:

- The flood mitigation works do not have an adverse impact on any surrounding property or flooding processes for any flood event up to the Probable Maximum Flood event; and,
- The flood mitigation works result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event, and
- The flood mitigation works result in the protection of the existing and proposed development from a flood event to the minimum floor level requirements as defined in this control; and
- The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc.).

Where flood mitigation works are undertaken to protect the development as set out above, the minimum floor level requirements of this control need not apply.

A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

Filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent floodwater ingress), enclosure of structures and/or construction of swimming pools

Activities that reduce the flood storage capacity of the property including additions to buildings, the filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent flood water ingress), enclosure of structures to prevent the ingress of flood waters (where the Flood Planning Level is greater than 500mm above the existing ground level) or the construction of above ground swimming pools, will only be permitted where it can be demonstrated through a Flood Risk Management Report that;

- there is no additional adverse flood impact on the surrounding properties for any flood event up to the Probable Maximum Flood event; and
- there is no net decrease in the floodplain volume of a floodway or flood storage are within the property for any flood event up to the 1% AEP flood event.

New Development and Additions on land with a High Hazard Classification

Development is not permissible where the land is subject to a High Hazard Classification except where it can be demonstrated through a Flood Risk Management Report that building platforms, building envelope enclosures or carparking facilities and access:

- Are not adversely affected by any flood up to the Probable Maximum Flood event; and
- Result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- Result in no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event.

Floor levels - New Development and Additions

**A. For portion of the land designated High Hazard Flood Storage:**

For the portion of the development affected by, or affecting the High Hazard Flood Storage area, all floor levels but excluding balconies (with open balustrades), shall be at or above, or raised to the Flood Planning Level.

**B. For portion of the land designated High Hazard Floodway.**

For that portion of the development affected by, or affecting the High Hazard Floodway, structures must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all floors including balconies within the floodway area are at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of floodwaters under the building.

#### Floor Levels - Carparking Facilities

##### **A. For portion of the land designated High Hazard Flood Storage:**

The requirements for carparking facilities over the portion of the development affected by, or affecting the High Hazard Flood Storage area, shall be as follows:

##### **Enclosed garage and enclosed carpark:**

All floor levels shall be at or above the Flood Planning Level.

##### **Covered basement carpark facilities:**

All access, ventilation and any other potential water entry points shall be above the Flood Planning Level and a clearly signposted pedestrian access via a low flood hazard area to a 'safe-haven' above the Flood Planning Level or 300mm below the level of the Probable Maximum Flood (whichever is the higher) separate to the vehicular access ramps, shall be provided.

##### **Open carpark areas (including covered carpark areas) and Carports:**

Are permissible at the existing ground level. Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event.

##### **Open carpark areas (including covered carpark areas) and carports used for residential carparking:**

All floor levels/pavement levels shall be at or above the Flood Planning Level.

##### **Open carpark areas (including covered carpark areas) and carports used for visitors, staff and service delivery vehicles spaces:**

Are permissible at the existing ground level. Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event

##### **B. For Portion of land designated High Hazard Floodway:**

The requirements for carparking facilities over the portion of the development affected by or affecting a High Hazard Floodway shall be as follows:

##### **Open carpark areas and carports:**

Are not permitted in a floodway.

##### **New Carparking Facilities:**

For that portion of the carparking facilities affected by, or affecting the High Hazard Floodway, the structure must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all carpark floors within the floodway area at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of floodwater under the building.

## Variations

### Flood Risk Management Report

Where in the opinion of a Water Engineer or a Structural Engineer that a detailed Flood Risk Management Report would not be required due to the proposed development type and/or degree of flood affectation on the proposed development is minimal, a declaration to this effect must be provided with the Development Application stating reasons.

The Council may also waive the requirement for a Flood Risk Management Report on review of the proposed development type and/or the degree of flood affectation on the proposed development.

### Floor Levels - Change of Use to Existing Premises and Additions up to 30 square metres Gross Floor Area - High Hazard Storage Area only

Where the existing floor level of a building is below the Flood Planning Level and raising the floor level of existing development to the Flood Planning Level may be difficult to achieve due to site and access constraints and /or an addition up to 30m<sup>2</sup> gross floor area (GFA) is proposed, consideration may be given to retaining the existing floor levels and satisfactory flood proofing (wet and/or dry) to the Flood Planning Level, subject to demonstration through a Flood Risk Management Report that all precautions have been taken to minimise flood risk.

(The additional gross floor area of the development, at any point in time from 13 December 2002 (adoption of DCP 30), can only be increased to a maximum total area not exceeding 30m<sup>2</sup> if any part of the existing gross floor area (GFA) of the development is below the Flood Planning Level).

### Floor Levels - New development within Shopping Precincts of Avalon, Newport and North Narrabeen

Where constructing or raising the total area of the Ground Floor to the level of the Flood Planning Level may be difficult to achieve due to site and access constraints, consideration on merit may be given to a floor level below the Flood Planning Level for the internal front 5m of the development to accommodate window displays, pedestrian stairs and/or ramp(s) that lead up to the remainder of the development (subject to demonstration through a Flood Risk Management Report) provided that:

- the proposed development is within the Shopping Precincts of Avalon, Newport and North Narrabeen; and
- the ground floor is for business purposes only; and
- the proposed Ground Floor Level for the internal front 5m is no lower than the existing floor level; and
- the proposed Ground Floor Level of the remainder of the Ground Floor is at or above the Flood Planning Level; and
- no electrical equipment or electrical motors are located below the Flood Planning Level.





### **B3.19 Flood Hazard - Flood Category 1 - High Hazard - Other Development**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by Flood Category 1 - High Hazard - P21DCP-BCMDCP069

#### **Uses to which this control applies**

- Child Care Centre
- Demolition
- Earthworks/Landfill
- Hospital/Nursing Home
- Other Development/Land Use
- Seniors Housing - SEPP (Housing for Seniors or People with a Disability) 2004
- Tennis court (ancillary to a dwelling)

#### **Outcomes**

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### **Controls**

##### Obtaining Flood Levels

To apply this control the levels for the 1% AEP flood, Flood Planning Level (FPL) and Probable Maximum Flood (PMF) must first be established by:

- Obtaining Flood Advice using the 'Flood and Estuarine Levels Tool' from Council's Web Site, or;
- An independent assessment undertaken by a Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8).

The Flood Planning Level and Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (ie the point on the land at which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.

##### Flood Risk Management Policy for Development in Pittwater

For additional information, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.

##### High Hazard Classification

An assessment through a Flood Risk Management Report is required to be undertaken by a Water Engineer for property subject to a High Hazard Classification to determine the extents within the site of the High Hazard Classification, the High Hazard Flood Storage Area and/or the High Hazard Floodway Area.

#### General to all Development

The following applies to all development:

- All development or activities must be designed and constructed such that:
- There is no additional adverse flood impact on surrounding properties or flooding processes for any event up to the Probable Maximum Flood event and;
- There is no net decrease in floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- All foundation structures within the area of the property affected by the Flood Planning Level, where the Flood Planning Level is equal to or greater than 500mm above the existing ground level, is to incorporate a suspended floor system on open pier/pile footings with openings in perimeter walls to allow for the flow of surface water and flood storage up to the level of the 1% AEP flood; and
- All structural elements below the Flood Planning Level shall be constructed from flood compatible materials; and
- All structures must be designed and constructed to ensure structural integrity for immersion and impact of velocity and debris up to the level of the 1% AEP flood. If the structure is to be relied upon for 'shelter-in-place' evacuation then structural integrity must be ensured up to the level of the Probable Maximum Flood; and
- All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed to the Flood Planning Level; and
- The storage of toxic or potentially polluting goods, materials or other products, which may be hazardous or pollute floodwaters, will not be permitted below the Flood Planning Level.
- To ensure the recommended flood evacuation strategy of 'shelter-in-place' it will need to be demonstrated that there is pedestrian access via a low flood hazard area to a 'safe haven' above the Flood Planning Level or 300mm below the level of the Probable Maximum Flood (whichever is the higher).

#### Flood Mitigation Works

Flood mitigation works that modify a Major Drainage System, stormwater system, natural water course, floodway or flood behaviour within the development site may be permitted subject to demonstration through a Flood Risk Management Report that:

- The flood mitigation works do not have an adverse impact on any surrounding property or flooding processes for any flood event up to the Probable Maximum Flood event; and,
- The flood mitigation works result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- The flood mitigation works result in the protection of the existing and proposed development from a flood event to the minimum floor level requirement as defined in this control; and,
- The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc.).

Where flood mitigation works are undertaken to protect the development as set out above, the minimum floor level requirements of this control need not apply.

A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

Filling of Land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent floodwater ingress), enclosure of structures and/or construction of swimming pools

Activities that reduce the flood storage capacity of the property including additions to building, the filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent flood water ingress), enclosure of structures to prevent the ingress of flood waters (where the Flood Planning Level is greater than 500mm above the existing ground level) or the construction of above ground swimming pools, will only be permitted where it can be demonstrated through a Flood Risk Management Report that;

- there is no additional adverse flood impact on the surrounding properties for any flood event up to the Probable Maximum Flood event.
- there is no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event.

New Development and Additions on land with a High Hazard Classification

Development is not permissible where the land is subject to a High Hazard Classification except where it can be demonstrated through a Flood Risk Management Report that building platforms, building envelope enclosures or carparking facilities and access:

- Are not adversely affected by any flood up to the Probable Maximum Flood event; and
- Result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- Result in no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event.

Floor Levels - Special Flood Protection Development

**A. For portion of the land designated High Hazard Flood Storage**

For the portion of the development affected by, or affecting the High Hazard Flood Storage area, all floor levels within 'Special Flood Protection' developments (excluding balconies with open balustrades) shall be at or above or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level). Special Flood Protection developments include Seniors Housing - SEPP (Housing for Seniors or People with a Disability) 2004, childcare facilities, hospitals, nursing homes and educational facilities.

**B. For the portion of the land designated High Hazard Floodway**

For the portion of the development affected by, or affecting High Hazard Floodway, structures must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all floors including balconies within the floodway area are at or above, or raised to the Probable Maximum Flood Level or Flood Planning Levels (whichever is the higher level) to allow clear passage of floodwaters under the building. Special Flood Protection developments include Seniors Housing - SEPP (Housing for Seniors or People with a Disability) 2004, childcare facilities, hospitals, nursing homes and educational facilities.

Floor Levels - New Development and Additions

**A. For portion of the land designated High Hazard Flood Storage:**

For the portion of the development affected by, or affecting the High Hazard Flood Storage Area, all floor levels within the development but excluding Special Flood Protection land uses and excluding balconies (with open balustrades), shall be at or above, or raised to the Flood Planning Level.

**B. For portion of the land designated High Hazard Floodway.**

For that portion of the development affected by, or affecting the High Hazard Floodway, structures must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all floors including balconies within the floodway area are at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of floodwaters under the building.

Floor Levels - Carparking Facilities

**A. For portion of land designated High Hazard Flood Storage:**

The requirements for carparking facilities over the portion of the development affected by, or affecting the High Hazard Storage area, shall be as follows:

**Enclosed garage and enclosed carpark:**

All floor levels shall be at or above the Flood Planning Level.

**Covered basement carpark facilities:**

All access, ventilation and any other potential water entry points shall be above the Flood Planning Level and a clearly signposted pedestrian access via a low flood hazard area to a 'safe haven' above the Flood Planning Level of 300mm below the level of the Probable Maximum Flood (whichever is the higher) separate to the vehicular access ramps, shall be provided.

**Open carpark areas (including covered carpark areas) and Carports:**

Are permissible at the existing ground level. Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event.

**Open carpark areas and Carports:**

Are not permissible within a floodway area.

**Open carpark areas (including covered carpark areas) and carports used for residential carparking:**

All floor levels/pavement levels shall be at least or above the Flood Planning Level.

**Open carpark areas (including covered carpark areas) and carports used for visitors, staff and service delivery vehicles spaces:**

Are permissible at the existing ground level. Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event.

**B. For portion of land designated High Hazard Floodway:**

The requirements for carparking facilities over the portion of the development affected by or affecting a High Hazard Floodway shall be as follows:

**Open Carpark areas and carports:**

Are not permitted in a floodway.

**New Carpark Facilities:**

For that portion of the carparking facilities affected by, or affecting the High Hazard Floodway, the structure must be designed and constructed so as not to impede the floodway and shall be elevated such that the level of the underside of all carpark floors within the floodway area shall be at or above, or raised to the Probable Maximum Flood Level or Flood Planning Level (whichever is the higher level) to allow clear passage of the floodway under the building.

**Variations**

Flood Risk Management Report

Where in the opinion of a Water Engineer, Structural Engineer or Architect that a detailed Flood Risk Management Report would not be required due to the proposed development type and/or degree of flood affectation on the proposed development is minimal, a declaration to this effect must be provided with the Development Application stating reasons.

The Council may also waive the requirement for a Flood Risk Management Report on review of the proposed development type and/or the degree of flood affectation on the proposed development.

Innovation in Flood Risk Protection Measures

Innovation and alternative designs in flood protection measures may be permitted on a merit basis subject to demonstration through a Flood Risk Management report that the protection measures can be achieved.

Floor Levels - Non-habitable Public Facilities and Ancillary Development - High Hazard Flood Storage Area Only

The floor level for a non-habitable public facility (such as: toilet blocks, canteens, etc with no facilities for a place of public meeting) or an ancillary development (such as tennis courts ancillary to a dwelling) may be below the Flood Planning Level, at a minimum floor level of the 5% AEP flood level.



### **B3.20 Flood Hazard - Flood Category 1 - High Hazard - Land Subdivision**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by Flood Category 1 - High Hazard - P21DCP-BCMDCP069

#### **Uses to which this control applies**

- Subdivision (Additional Lots - Excludes Dual Occupancy)
- Subdivision (Boundary Adjustment)
- Warriewood Valley Sector Development/Subdivision

#### **Outcomes**

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### **Controls**

##### Obtaining Flood Levels

~~To apply this control, the flood levels for the 1% AEP flood, Flood Planning Level (FPL) and Probable Maximum Flood (PMF) must first be established by:~~

- ~~• Obtaining Flood Advice using the 'Flood and Estuarine Levels Tool' from Council's Web site, or;~~
- ~~• An independent assessment undertaken by a Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8).~~

~~The Flood Planning Level and Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (i.e. the point on the land at which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.~~

##### Flood Risk Management Policy for Development in Pittwater

For additional information, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.

##### High Hazard Classification

An assessment through a Flood Risk Management Report is required to be undertaken by a Water Engineer for property subject to a High Hazard Classification to determine the extents within the site of the High Hazard Classification, of the High Hazard Flood Storage Area and/or the High Flood Floodway Area.



### Flood Mitigation Works

Flood mitigation works that modify a Major Drainage System, stormwater system, natural water course, floodway or flood behaviour within the development site may be permitted subject to demonstration through a Flood Risk Management Report that:

- The flood mitigation works do not have an adverse impact on any surrounding property or flooding processes for any flood event up to the Probable Maximum Flood event; and,
- The flood mitigation works result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- The flood mitigation works result in the protection of the proposed development from a flood event to the minimum floor level requirement as defined for the proposed development; and,
- The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc.).

Where flood mitigation works are undertaken to protect the development as set out above, the minimum floor level requirements of this control need not apply.

A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

### Filling of land for subdivision purposes

The filling of land will only be permitted where it can be demonstrated through a Flood Risk Management Report that:

- There is no net decrease in the Floodplain volume of a Floodway or flood storage area within the property, for any flood event up to the 1% AEP Flood event; and
- There is no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event.

### Land Subdivision - Land with High a Hazard Classification

Subdivision of land is not permissible on land that is subject to a High Hazard Classification except where it can be demonstrated through a Flood Risk Management Report that adequate building platforms, developable areas, building envelope enclosures, carpark facilities:

- Are not adversely affected by any flood up to the Probable Maximum Flood event; and
- Result in no net decrease in the floodplain volume of a floodway or flood storage area within the property for any flood event up to the 1% AEP flood event; and
- Result in no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event.



### **B3.21 Flood Hazard - Flood Category 2 - All Development except Dwelling House, Secondary Dwelling, Dual Occupancy, and Multi-Unit Housing Development**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by Flood Category 2  
- P21DCP-BCMDCP070

#### **Uses to which this control applies**

- Business Development - New Construction or Alterations and Additions
- Child Care Centre
- Earthworks/Landfill
- Hospital/Nursing Home
- Industrial Development - New Construction or Alterations and Additions
- Other Development/Land Use
- Rural Industry
- Seniors Housing - SEPP (Housing for Seniors or People with a Disability) 2004
- Shop-Top Housing
- Subdivision (Additional Lots - Excludes Dual Occupancy)
- Warriewood Valley Sector Development/Subdivision

#### **Outcomes**

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### **Controls**

##### Obtaining Flood Levels

To apply this control, the flood levels for the Probable Maximum Flood (PMF) must first be established by:

- ~~Obtaining Flood Advice using the 'Flood and Estuarine Levels Tool' information from Council's Web site, or;~~
- ~~An independent assessment undertaken by a Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8);~~

~~The Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (i.e. that point on the Land at which the highest flood level the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.~~

##### Flood Risk Management Policy for Development in Pittwater

For additional information, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.

#### General to all Development

The following applies to all development:

All development or activities must be designed and constructed such that:

- There is no additional adverse flood impact on surrounding properties or flooding processes for any event up to the Probable Maximum Flood event; and
- There is no net decrease floodplain volume of a floodway or Flood Storage Area within the property for any flood event up to the 1% AEP flood event; and
- All structures must be designed and constructed to ensure that if the structure is to be relied upon for 'shelter-in-place' evacuation then structural integrity must be ensured up to the level of the Probable Maximum Flood; and
- To ensure the recommended flood evacuation strategy of 'shelter-in-place' it will need to be demonstrated that there is pedestrian access via a low flood hazard area to a 'safe haven' above 300mm below the level of the Probable Maximum Flood.

#### Flood Mitigation Works

Flood mitigation works that modify a Major Drainage System, stormwater system, natural water course, floodway or flood behaviour within the development site may be permitted subject to demonstration through a Flood Risk Management Report that:

- The flood mitigation works do not have an adverse impact on any surrounding property or flooding processes for any flood event up to the Probable Maximum Flood event; and,
- The flood mitigation works result in the protection of the existing and proposed development from a flood event to the minimum floor level requirement as defined in this control; and
- The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc.).

Where flood mitigation works are undertaken to protect the development as set out above, the minimum floor level requirements of this control need not apply.

A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

#### Filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent floodwater ingress), enclosure of structures and/or construction of swimming pools

Activities that reduce the flood storage capacity of the property including additions to buildings, the filling of land, bunded carpark facilities (incorporating perimeter barrier and/or mounding to prevent flood water ingress), enclosure of structures to prevent the ingress of flood waters or the construction of above ground swimming pools, will only be permitted where it can be demonstrated through a Flood Risk Management Report that:

- there is no additional adverse flood impact on the surrounding properties or flooding process for any flood event up to the Probable Maximum Flood event.



The Flood Planning Level and Probable Maximum Flood Level provided by Council is a conservative level based on the most upstream point of the land (ie the point on the land at which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls

### B3.22 Flood Hazard - Flood Category 3 – Overland Flow Path - Major

#### Land to which this control applies

- Land identified on the Flood Hazard Map as affected by Flood Category 3 – Overland Flow Path – Major - P212DCP - BCMDCP089

#### Uses to which this control applies

- All Uses

#### Outcomes

Protection of people. (S)

Protection of the natural environment. (En)

Protection of private and public infrastructure and assets. (S)

#### Controls

The following applies to all development:

All development or activities must be designed and constructed such that:

- The minimum floor level of the building/dwelling/addition/alteration is to be at or above the minimum floor level requirement for Category 3 – Overland Flow Path – Major at or above the Flood Planning Level (500mm above the 1% Annual Exceedance Probability Flood Level and the 5m horizontal buffer); and;
- There is no net decrease in volume of the Flood Storage Area within the property for any flood event up to the 1% Annual Exceedance Probability flood event; and;
- There is no increase in flood hazard within the floodway on the property for any flood event up to the 1% Annual Exceedance Probability; and;
- There is no additional adverse flood impact on surrounding properties; and;
- A Flood Risk Management Report is to be provided to Council and is to be prepared by a suitably qualified Water Engineer for the property; and;
- Special Flood Protection developments include Seniors Housing - SEPP (Seniors Living) 2004, childcare facilities, hospitals, nursing homes, and educational facilities, must have minimum floor levels at or above or raised to the Probable Maximum Flood; and;
- Enclosed garage and enclosed carpark floor levels shall be or above the minimum floor level requirement for Category 3 – Overland Flow Path – Major at or above the Flood Planning Level; and;
- Covered basement carparking – all access entry points shall be at or above the minimum floor level requirement for Category 3 – Overland Flow Path – Major at the Flood Planning Level; and;
- Open carpark areas (including covered carpark areas) and Carports for all Development, except Dwelling House, Secondary Dwelling, Dual Occupancy and Multi-Unit Housing are permissible at the existing ground level, but are not to be located within a floodway area; and;
- Open carpark areas (including covered carpark areas) and Carports for Dwelling House, Secondary Dwelling, Dual Occupancy and Multi-Unit Housing floor levels shall be at or above the minimum floor level requirement for Category 3 – Overland Flow Path – Major or above the Flood Planning Level.

### Variations

- Where in the opinion of a suitably qualified Water Engineer, that a detailed Flood Risk Management Report is not required due to the proposed development type and/or degree of flood affectation on the proposed development is minimal, a declaration by the Water Engineer to this effect must be provided with the Development Application stating reasons.

Council may also waive the requirement for a Flood Risk Management Report on review of the proposed development type and/or the degree of flood affectation on the proposed development.

- The filling of land, bunded carpark facilities, enclosure of structures and/or construction of swimming pools (identified within Overland Flow Path – Major) will only be permitted where the Flood Risk Management

Report demonstrates there is no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up the Probable Maximum Flood event.

- Should the applicant wish to vary these controls, a Flood Risk Management Report produced by a suitably qualified Water Engineer is to be provided stating the reasons and impacts for this variation

### Advisory Notes

- All foundation structures within the area of the property affected by the Flood Planning Level, is to incorporate a suspended floor system on open pier/pile footings with openings in perimeter walls to allow for the flow of surface water and flood storage up to the level of the 1% Annual Exceedance Probability flood; and;
- All structural elements ~~below the Flood Planning Level shall~~ are to be constructed from flood compatible materials ~~up to or above the minimum floor level requirement for Category 3 – Overland Flow Path - Major~~; and;
- All structures must be designed and constructed to ensure structural integrity for immersion and impact on velocity and debris up to the level of 1% Annual Exceedance Probability flood. If the structure is to be relied upon for 'shelter-in-place' refuge then structural integrity must be ensured up to the level of the Probable Maximum Flood and;
- All electrical equipment, wiring, fuel lines or any other service pipes and connections must be waterproofed ~~to the minimum floor level requirement for Category 3 – Overland Flow Path – Major up to at least the Flood Planning Level~~; and,
- The storage of toxic or potentially polluting goods, materials or other products, which may be hazardous or pollute floodwaters, will not be permitted ~~below the minimum floor level requirement for Category 3 – Overland Flow Path – Major the Flood Planning Level~~.
- The volume of flood storage displaced by the existing structure may be assumed to have been taken into consideration in the assessment of Flood Levels within the catchments
- For existing structures, a tolerance of up to minus 100mm may be applied to the ~~minimum floor level requirement for Category 3 – Overland Flow Path – Major or Probable Maximum Flood level~~ in respect of compliance with these controls.



- For additional information, including the minimum floor level requirement for Category 3 – Overland Flow Path – Major, applicants are referred to the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8.
- ~~Flood Advice can be obtained through using the 'Flood and Estuarine Tool' from Council's Web Site~~

#### Obtaining Flood Levels

To apply this control the levels for the 1% Annual Exceedance Probability flood, and Probable Maximum Flood (PMF) must first be established by:

- ~~Obtaining Flood Advice using the 'Flood and Estuarine Tool' from Council's Web Site, or;~~
- Obtaining the 1% AEP flood, Minimum Floor Level and Probable Maximum Flood Level from Council; or
- An independent assessment undertaken by a suitably qualified Water Engineer (as defined in the Flood Risk Management Policy for Development in Pittwater contained in Appendix 8).

~~The 1% Annual Exceedance Probability Level and Probable Maximum Flood Level provided through the Council database is a conservative level based on the most upstream point of the land (ie, the point on the land at which the highest flood level would occur).~~

The 1% Annual Exceedance Probability level and Probable Maximum Flood Level provided through Council is a conservative level based on the most upstream point of the land (ie, the point on the land at which the highest flood level would occur). An independent assessment by a Water Engineer is recommended where the ground levels across the property vary by more than 500mm and the minimum floor levels of the proposed and/or existing development are below the minimum floor level controls.

### **B3.23 Climate Change (Sea Level Rise and Increased Rainfall Volume)**

#### **Land to which this control applies**

- Land identified on the Flood Hazard Map as affected by flood - P21DCP-BCMDCP014
- Land identified as Beach Management Area on the Coastal Hazards Map 97003 - P21DCP-BCMDCP016
- Land identified on the Estuarine Hazard Map as affected by estuarine processes. - P21DCP-BCMDCP018
- Land identified as being within the Warriewood Valley Land Release Area - P21DCP-BCMDCP055

#### **Uses to which this control applies**

- Business Development - New Construction or Alterations and Additions
- Child Care Centre
- Group Building
- Hospital/Nursing Home
- Industrial Development - New Construction or Alterations and Additions
- Multi-Unit Housing
- Residential Flat Building (2 storey)
- Residential Flat Building (3 storey)
- Seniors Housing - SEPP (Housing for Seniors or People with a Disability) 2004
- Shop-Top Housing
- Subdivision (Additional Lots - Excludes Dual Occupancy)

#### **Outcomes**

To protect people. (S)

To protect the natural environment. (En)

To protect private and public infrastructure and assets. (Ec)

#### **Controls**

##### When this control applies:

This control applies where 'intensification of development' is proposed. 'Intensification of development' includes but may not be limited to:

- an increase in the number of dwellings (but excluding dual occupancies and secondary dwellings);
- an increase in commercial or retail floor space.

##### Climate Change Scenarios

The following climate change scenarios shall be considered:

- **Scenario 1:** Impacts of sea level rise only;
- **Scenario 2:** Impacts of sea level rise combined with increased rainfall volume;

1) Climate Change Assessment for Land Identified as Beach Management Area on the Coastal Hazards Map

The impacts of climate change on land identified as Beach Management Area on the Coastal Hazards Map, involving development to which this control applies, shall be assessed in accordance with Clause B3.3 Coastline (Beach) Hazard and Part D Appendix 6 "Coastline Risk Management Policy for Development in Pittwater".

2) Climate Change Assessment for Land Identified on Flood Hazard Maps

For land identified on Council's Flood Hazard Maps involving development to which this control applies, a Flood Risk Management Report shall be prepared in accordance with Part D Appendix 8 "Flood Risk Management Policy for Development in Pittwater", which includes an assessment of climate change. This assessment shall include the impacts of climate change on the property over the life of the development and the adaptive measures to be incorporated in the design of the project. The following climate change scenarios shall be considered:

- **Scenario 1:** Impacts of sea level rise only
- **Scenario 2:** Impacts of sea level rise combined with increased rainfall volume

Flood Planning Levels for Scenario 1 and 2 have not been adopted by Council ~~to date~~.

~~As part of Council's Flood Risk Management Strategy, Council is progressively incorporating the impacts of sea level rise and increased rainfall volumes (as a result of climate change) in Flood Planning Levels. New Flood Planning Levels and associated mapping will be adopted progressively by Council as the information becomes available.~~

~~As an interim measure,~~ Applicants should contact Council to be directed to the source of the best available information to determine the likely increase in Flood Planning Levels as a result of climate change.

3) Climate Change Assessment for Land Identified within the Warriewood Valley Land Release Area

For land identified within the Warriewood Valley Land Release Area involving development to which this control applies, a climate change assessment shall be incorporated in the Water Management Report as required by Clause C6.4 "Flood - Warriewood Valley Residential Sectors, Clause C6.5 "Flood - Warriewood Valley Employment Generating Sectors" and in accordance with Council's Warriewood Valley Urban Land Release Water Management Specification (February 2001 or as amended). The climate change assessment shall include the impacts of climate change on the property over the life of the development and the adaptive measures to be incorporated in the design of the project. The following climate change scenarios shall be considered:

- **Scenario 1:** Impacts of sea level rise only
- **Scenario 2:** Impacts of sea level rise combined with increased rainfall volume

Flood Planning Levels for Scenario 1 and 2 have not been adopted by Council ~~to date~~.







#### Alterations and Additions to Existing Dwelling - Retain Existing Floor Level below Flood Planning Level

An alteration or addition to an existing residential dwelling may be permissible where existing floor levels are retained below the Flood Planning Level provided that:

- The total gross floor area (GFA) of any additions to the dwelling at any point in time from 13 December 2002 can only be increased to a maximum total area not exceeding 30m<sup>2</sup> if any part of the existing gross floor area (GFA) of the dwelling is below the Flood Planning Level; and,
- The floor levels of the addition must be at or above the Flood Planning Level; and,
- If the floor level of the existing dwelling is to be retained at the existing level, the existing dwelling must be satisfactorily flood proofed (wet and/or dry) to the Flood Planning Level; and,
- The addition must be designed and constructed such that it does not preclude the raising of the floor level of the existing structure to the Flood Planning Level when further additions are undertaken; and,
- Where a first floor addition to the dwelling is to be constructed, the floor level of the first floor addition is to be of a height that allows for the internal ground floor of the existing dwelling to be either at, or raised to the Flood Planning Level (whilst maintaining minimum floor to ceiling height requirements).

#### Floor Levels - Carparking Facilities - New Enclosed Garage

Consideration may be given to a floor level of an enclosed garage at or above the 1% AEP flood level where it can be demonstrated that:

- The enclosed garage is not connected internally to the dwelling; and
- The enclosed garage will be used for carparking purposes only; and,
- The entrance to the garage does not face towards the direction of floodwater; and
- The enclosed garage is not in a floodway.

#### New Development and Alterations and Additions - loss of floodplain volume up to 30 cubic metres

For new development and additions to existing dwellings, when the criteria for no net loss in floodplain volume of a floodway or flood area is difficult to achieve for any flood up to a 1% AEP flood, consideration may be given to a loss of floodplain storage volume of up to 30 cubic metres, subject to demonstration through a Flood Risk Management Report that there is no additional adverse flood impact on the surrounding properties or flooding processes for any flood event up to the Probable Maximum Flood event

#### Innovation in Flood Protection Measures

Innovation and alternative designs in flood protection measures may be permitted on a merit basis subject to demonstration through a Flood Risk Management Report that the protection measures can be achieved.

#### **Advisory Notes**

- The volume of flood storage displaced by the existing structure may be assumed to have been taken into consideration in the assessment of Flood Planning Levels within the catchments of primary floodplains.
- For existing structures, a tolerance of up to minus 100mm may be applied to the Flood Planning Level or Probable Maximum Flood level in respect of compliance with these controls.
- For a detached Secondary Dwelling controls for new development apply.







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## 1.0 INTRODUCTION

The Flood Risk Management Policy for Development in Pittwater (the Policy) establishes the flood risk management approach for development or activities on land affected by flooding within the Pittwater Local Government Area (LGA).

At the strategic level, it enables the consideration of social, economic, ecological, cultural and flooding issues to determine actions for **strategic management** of flood risk, through the formulation and implementation of Floodplain Risk Management Plans.

At the property-specific level, the Policy sets **development controls**, such as minimum floor levels, building location within the site, structural stability, and flood proofing etc. to manage flood risk.

## 2.0 THE POLICY STATEMENT

Development must be undertaken in accordance with the acceptable risk management criteria defined in this document for a design project life, taken to be 100 years, unless otherwise justified by the applicant and acceptable to Council. These criteria are based on those contained in the NSW Government Floodplain Development Manual (April 2005), and Planning Circular PS07-033 (January 2007) which supports the NSW Government's Flood Prone Land Policy.

The primary method of flood risk management for development in the Pittwater LGA is through the application of development controls under Part 4 and environmental assessment under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) (a Part 5 Assessment). A flood risk management review may also be generated by an application for a Building Certificate for any development on lands that have been identified as being flood prone.

Once the flood risk management measures have been identified on the land, it is the owner's responsibility to ensure that these measures are properly maintained for the design project life of the development.

## 3.0 OBJECTIVES

The objectives of this Policy are:

- (a) To ensure that flood processes (affecting development or likely to be affected by development) are adequately investigated and documented by applicants or proponents of activities prior to the lodgement of any development application or Part 5 Assessment to carry out any development/activity subject to this Policy, or wherever an application is lodged for a Building Certificate; and
- (b) to establish whether or not the proposed development or activity is appropriate to be carried out having regard to the results of flooding investigations; and
- (c) to ensure effective controls exist to guarantee that a development is carried out in accordance with the requirements of this policy; and
- (d) to ensure that the preparation of flood related information and certificates required to be lodged by this Policy are carried out by suitably qualified professionals with appropriate expertise in the applicable areas of engineering; and
- (e) that developments are only carried out if flood processes and related structural engineering risks are identified and can be effectively addressed and managed for the life of the development at an acceptable level of risk.





















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## C10.2 Draft Warriewood Valley Strategic Review Addendum Report

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**Meeting:** Natural Environment Committee

**Date:** 2 June 2014

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**STRATEGY:** Land Use & Development

**ACTION:** Complete Warriewood Valley Strategic Review (2013/14 – completed)  
Implement recommendations from the Warriewood Valley Strategic Review (2014/15)

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### PURPOSE OF REPORT

- To inform Council of the outcomes of the review of the remaining undeveloped land parcels within the Warriewood Valley Release Area, following the Council's decision of 12 June 2013 to adopt the recommendations of the *Warriewood Valley Strategic Review Report 2012*. Council's decision included, at point 13, a called for a further report on lands not considered or resolved through the Warriewood Valley Strategic Review.
  - To seek Council's endorsement to place the draft *Warriewood Valley Strategic Review Addendum Report* (tabled separately) on public exhibition.
- 

### 1.0 BACKGROUND

- 1.1 In January 2011, the Planning Assessment Commission (PAC) in determining the Major Project Application at 14-18 Boondah Road Warriewood, recommended that:

*“Council and the Department work together to clarify the role of the Warriewood centre, the potential for higher density residential and employment generating developments adjacent to the centre, its role in the subregion and how it relates to the rest of the Valley, in terms of development density, housing mix and traffic and transport. Council and the Department should jointly prepare a comprehensive strategic study of the whole area to review:*

- *the appropriateness of Council height and density standards across the Valley,*
- *the role of Warriewood Square, the current transport network and necessary improvement works, and*
- *the demand for physical and social infrastructure in the Valley and the surrounding area.”*

- 1.2 At its meeting of 16 May 2011, Council resolved to formally commence the Warriewood Valley Strategic Review (Strategic Review) in partnership with the then Department of Planning and Infrastructure (the Department).
- 1.3 The main premise of the Strategic Review was to investigate all undeveloped residential sectors in the Warriewood Valley Release Area (Release Area) as to their potential to accommodate medium density housing (defined as between 25 and 60 dwellings per developable hectare). The Strategic Review also investigated development opportunities within the sector known as the Southern Buffer (located at the corner of Jacksons and Pittwater Roads).
- 1.4 The study area defined at the commencement of the Strategic Review is shown in **Attachment 1**.
- 1.5 For the majority of undeveloped residential sectors in the Release Area, the Strategic Review found that residential densities up to a maximum of 32 dwellings per developable hectare could be achieved. However a number of sectors due to their environmental constraints, existing development and/or zone were not recommended a dwelling density.
- 1.6 The Strategic Review also investigated the potential of 120-122 Mona Vale Road, Warriewood, however found that this property has capacity for low density development

only and therefore did not recommend a density. The Joint Regional Planning Panel, following the pre-gateway review and public exhibition of a Planning Proposal, has recently recommended that this property be rezoned for low density residential development.

- 1.7 In the case of the Southern Buffer, due to the significant environmental constraints and divergent landowner expectations, the Strategic Review did not recommend a future land use for this area. The Strategic Review invited landowners who wished to pursue development opportunities for their lands to do so through a Planning Proposal which addresses, but is not limited to, the constraints identified during the Strategic Review.
- 1.8 Council at its meeting of 12 June 2013 adopted the *Warriewood Valley Strategic Review Report 2012* (2012 Strategic Review Report) as the planning framework for the majority of undeveloped residential sectors in the Release Area (refer to **Attachment 2**).
- 1.9 For those lands not identified with a forward path under the 2012 Strategic Review Report, including the Southern Buffer, the *Warriewood Valley Planning Framework 2010* continues to apply until such time as a review of this strategy as it applies to these sectors has been undertaken and a forward path has been identified.
- 1.10 In adopting the 2012 Strategic Review Report, Council resolved that a future report would be presented to Council following a review of the remaining undeveloped sectors in the Release Area. The draft *Warriewood Valley Strategic Review Addendum Report* (draft Addendum Report) is proposed to be a supplement to the 2012 Strategic Review Report, so as to achieve a single comprehensive document applying to all undeveloped land in the Release Area.

## 2.0 THE REVIEW PROCESS

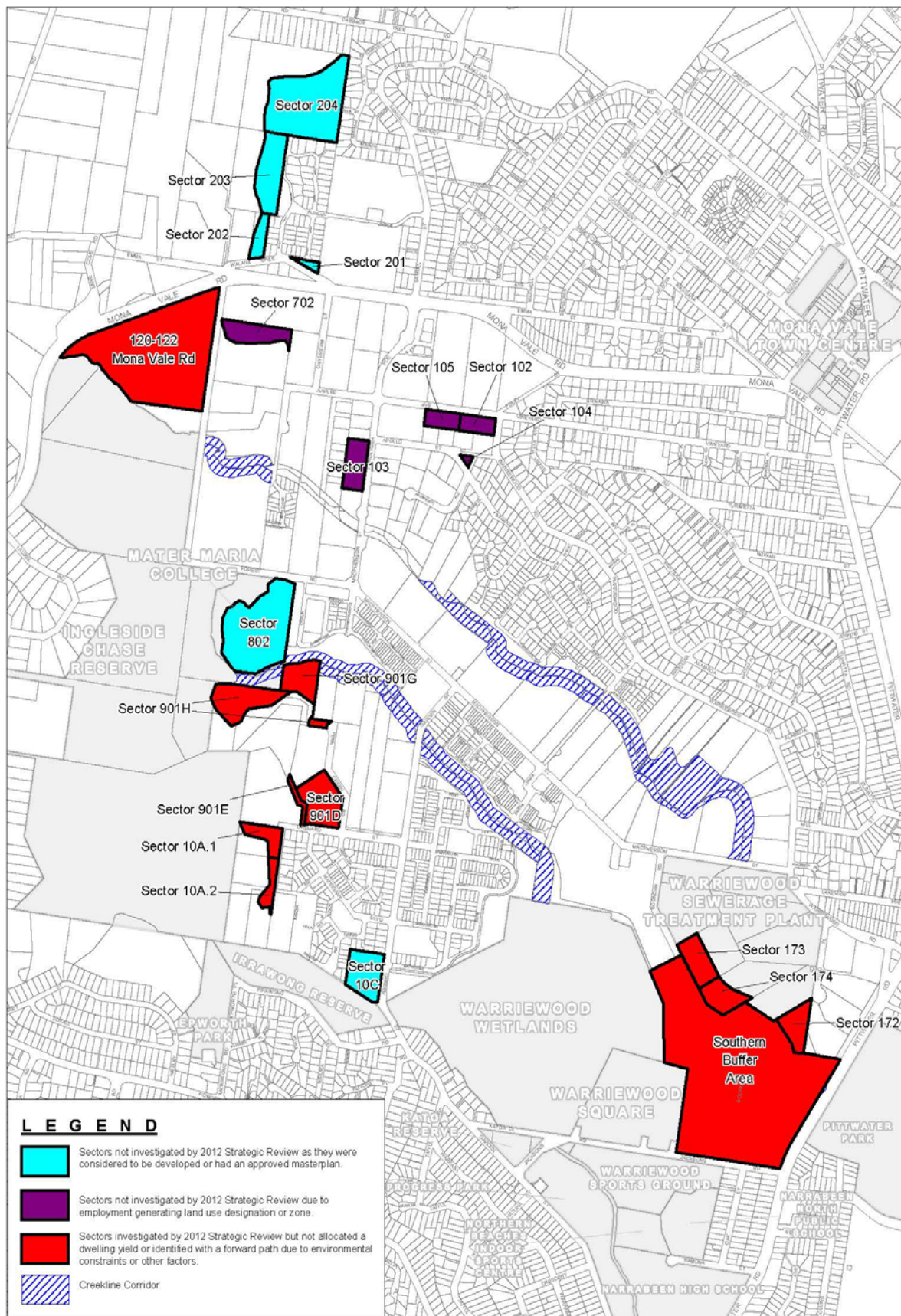
### 2.1 Identification of remaining sectors in Release Area without forward path

- 2.1.1 Based on the Strategic Review's defined study area (refer to **Attachment 1**), a review was undertaken to identify the remaining parcels in the Release Area without a forward path at the completion of the 2012 Strategic Review Report.
- 2.2.2 Table 1 outlines all the sectors excluded from the 2012 Strategic Review's recommendations. These sectors are identified in Map 1.

**Table 1: Sectors subject to further investigation**

Sector	Reason for exclusion from 2012 Strategic Review
<ul style="list-style-type: none"> <li>901D, 901E, 901G and 901H</li> <li>10A.1 and 10A.2</li> <li>120-122 Mona Vale Road</li> <li>Southern Buffer (including Sectors 172, 173 and 174)</li> </ul>	Investigated by 2012 Strategic Review but not allocated a dwelling yield or identified with a forward path due to environmental constraints and other factors.
<ul style="list-style-type: none"> <li>102, 103, 104 and 105</li> <li>702</li> </ul>	Not investigated by 2012 Strategic Review due to employment generating land use designation or zone.
<ul style="list-style-type: none"> <li>201, 202, 203 and 204</li> <li>802</li> <li>10C</li> </ul>	Not investigated by 2012 Strategic Review as sectors were considered to be developed.

**Map 1: Sectors subject to further investigation**



## 2.2 Opportunities and Constraints Analysis

- 2.2.1 Following the identification process, a desktop review of opportunities and constraints was undertaken to determine the potential for future development. The following factors were considered during the review to determine the most appropriate land use and a suitable forward path for each of the sectors:
- Known environmental constraints,
  - Proposed zoning under the DLEP 2012,
  - Existing development on the site and likelihood of redevelopment,
  - Outcomes and recommendations of various development assessments previously undertaken for particular sites,
  - Recommendations of Council's contemporary strategic planning and land use policies.
- 2.2.2 With regard to the investigation of environmental constraints, consistent with the approach utilised for the 2012 Strategic Review, a land capability assessment was undertaken based on Council's available mapping data. The land capability assessment utilised the most current flooding and bushfire information available to Council.
- 2.2.3 The opportunities and constraints analysis identified a number of sectors constrained by environmental factors or constrained by their existing use or development. Other relatively less constrained sectors were identified as having future development opportunities.

## 2.3 Determinations and policy reviews since the adoption of the *Warriewood Valley Strategic Review Report 2012*

- 2.3.1 In analysing the opportunities and constraints, consideration was given to recent policy reviews and Council determinations since the adoption of the 2012 Strategic Review Report. This includes:
- Review of *Warriewood Valley Section 94 Contributions Plan (Plan No. 15 Amendment No. 16)* and associated documents, including *Warriewood Valley Landscape Masterplan (Public Domain) and Design Guidelines*. These documents are currently on public exhibition. They nominate a number of privately owned lands in the Southern Buffer as suitable for open space. The documents also amend the width of the creek line corridor identified for purchase within the Buffer Area 1 sub-sectors.
  - Review of *Pittwater Open Space and Recreation Strategy*. This document is also currently on public exhibition. It recognises the significant undersupply of recreation land in Pittwater and identifies privately owned land in the Southern Buffer as highly suitable for this purpose.
  - Determination of Council of the Planning Proposal PP0007/13 for rezoning of 6 Jacksons Road and 3, 6, 8, 10 and 12 Boondah Road, Warriewood. Council on 17 March 2014 refused to progress the Planning Proposal to a Gateway Determination with the Department of Planning & Environment.

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## 3.0 RECOMMENDATIONS OF DRAFT ADDENDUM REPORT

### 3.1 Summary of Recommendations

Table 2 summarises the draft Addendum Report's recommendations and the necessary LEP amendments for each sector. This table should be read in conjunction with the recommended Warriewood Valley Release Area Map, Residential Density Map and Land Use Designation Map (refer to Map 3, 4 and 5 in Chapter 5 of the draft Addendum Report).



**Table 2: Summary of Recommendations**

Sector	Addendum Report Recommendation	Necessary LEP Amendment	Reason
<ul style="list-style-type: none"> <li>- 102</li> <li>- 103</li> <li>- 104</li> <li>- 105</li> </ul>	No change – designate for Employment Generating land use.	No amendment to LEP.	Sectors are already zoned for recommended land use.
<ul style="list-style-type: none"> <li>- 901D</li> <li>- 901E</li> <li>- 901G</li> </ul>	No change – designate for Residential – Low Density land use.	No amendment to LEP.	Sectors are already zoned for recommended land use.
120-122 Mona Vale Road	Land use designation and zoning to be determined through a separate Planning Proposal process.	No amendment to LEP.	Rezoning of sector currently being undertaken through a separate Planning Proposal process.
<ul style="list-style-type: none"> <li>- Southern Buffer</li> <li>- 172</li> </ul>	<p>Alter land use designation for some parcels within sector from Employment Generating to Active Recreation.</p> <p>One parcel identified with no development potential.</p> <p>Council's Depot to be retained.</p>	Defer any amendment to LEP.	Some properties within the sector identified to be negotiated for future active recreation under Section 94 Plan.
<ul style="list-style-type: none"> <li>- 702</li> <li>- 201</li> <li>- 204</li> <li>- 173</li> <li>- 174</li> </ul>	Delete from Warriewood Valley Release Area.	Delete sectors from Urban Release Area Map.	Due to the existing development/use the sectors are unlikely to be developed beyond their current use.
<ul style="list-style-type: none"> <li>- 10A.1</li> <li>- 10A.2</li> <li>- 'Bulb' portion of 901H</li> </ul>	<p>Delete from Warriewood Valley Release Area.</p> <p><i>(Note recommendation for battle-axe portion of 901H)</i></p>	<p>Delete sectors from Urban Release Area Map</p> <p><i>(Note recommendation for battle-axe portion of 901H)</i></p>	Due to significant environmental constraints the sectors are unlikely to be able to be developed for urban purposes.

Sector	Addendum Report Recommendation	Necessary LEP Amendment	Reason
<ul style="list-style-type: none"> <li>- 202</li> <li>- 203</li> </ul>	No change – designate for Residential – Low Density land use.	Administrative amendment to LEP to attribute yield.	<p>Sectors already zoned residential.</p> <p>Administrative amendment required to attribute a dwelling yield to the individual sub-sectors. Sector 203 attributed a yield based on Sector 20 masterplan (4 dwellings – no increase). Owners of Sector 202 have no intention to redevelop therefore a yield of 1 is to be attributed (net reduction 3 dwellings).</p>
Creek line corridor within Buffer Area 1	Reduce width of creek line corridor within these sectors to reflect Section 94 Plan.	Administrative amendment to LEP to modify creek line corridor.	To ensure consistency between Urban Release Area Map and Warriewood Valley Landscape Masterplan (Public Domain) and Design Guidelines and Section 94 Plan which identify a 25 metre area either side of creek centre line as creek line corridor land.
<ul style="list-style-type: none"> <li>- 802</li> </ul>	Sector to be rezoned to a more appropriate zone reflective of current use.	Amend LEP to rezone sector to more appropriate zone.	Recommended to be rezoned to more appropriate land use reflecting current use.
<ul style="list-style-type: none"> <li>- 10C</li> <li>- Battle-axe portion of 901H</li> </ul>	<p>Residential – Low Density (10C) and Residential – Medium Density (battle-axe portion of 901H) land use designation.</p> <p>Rezone and/or allocate dwelling yield consistent with scale of development permitted in the adjoining sectors.</p>	<p>Identify battle-axe portion of 901H on Urban Release Area Map.</p> <p>Amend LEP to allow residential development and/or allocate a dwelling yield to sector.</p>	<p>Both sectors are relatively unconstrained and have capacity to be developed for urban purposes.</p> <p>Dwelling yield recommended (17 dwellings for 10C and 3 dwellings for battle-axe portion of 901H) is based on the density of the adjoining sectors.</p>

### 3.2 Additional dwellings and infrastructure requirements

- 3.2.1 Based on the recommendations of the Addendum Report a net increase of 17 dwellings within the Release Area is forecast.
- 3.2.2 Preliminary analysis indicates that the increase in dwelling yield expected as result of the Addendum Report's recommendations is unlikely to have a significant impact on the infrastructure requirements for the Release Area. The additional yield will be able to be accommodated through a minor amendment to the existing *Warriewood Valley Section 94 Contributions Plan*.

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## **4.0 FORWARD PATH**

### **4.1 Public exhibition and community engagement**

- 4.1.1 Should Council endorse the exhibition of the draft Addendum Report, a strategy for community engagement has been devised to ensure all stakeholders in the community are adequately informed of report's recommendations and provided with opportunities to voice their concerns, whether affected directly or indirectly.
- 4.1.2 Prior to Council's agenda being released, all affected land owners and the Warriewood Valley Residents Association were notified in writing of this matter and advised where they can view the draft Addendum Report. Landowners were advised of the recommendations of the draft Addendum Report as it applies to their land.

- 4.1.3 It is proposed that all affected landowners will also be notified in writing prior to the draft Addendum Report being placed on public exhibition and invited to meet with Council planning staff during the exhibition period. Similarly, the Warriewood Valley Residents Association will be notified in writing of the exhibition and invited to meet with Council planning staff during the exhibition period.
- 4.1.3 In accordance with Council's Community Engagement Policy and Procedures, two written notices will be placed in the Manly Daily prior to and during the exhibition period. Information on the Draft Addendum Report will also be published on Council's website and copies of the report will be made available for viewing at Mona Vale and Avalon Customer Service Centres as well as the libraries. It is proposed that the Draft Addendum Report will be exhibited for a minimum of 28 days.
- 4.2 Post-exhibition review and future report to Council**
- 4.2.1 At the close of the exhibition period all submissions received will be considered, which may result in changes to the recommendations of the draft Addendum Report.
- 4.2.2 After all submissions have been considered and the draft Addendum Report revised where necessary, a further report will be brought back to Council recommending the adoption of the Addendum Report. It intended that a Planning Proposal to amend Pittwater LEP 2014 will accompany this future report, identifying the LEP amendments necessary to bring into effect the Addendum Report's recommendations.
- 4.2.3 Should the Addendum Report be adopted by Council, the 2012 Strategic Review Report, together with the Addendum Report, will become the strategic planning framework for all undeveloped lands in the Release Area.
- 

## **5.0 SUSTAINABILITY ASSESSMENT**

### **5.1 Supporting & Connecting our Community (Social)**

The draft *Warriewood Valley Strategic Review Addendum Report* takes into consideration infrastructure, land capacity, urban form, social fabric and the area's current character.

### **5.2 Valuing & Caring for our Natural Environment (Environmental)**

The draft *Warriewood Valley Strategic Review Addendum Report* has considered our ecological footprint and attempts to ensure bushland, waterways and biodiversity are conserved.

### **5.3 Enhancing our Working & Learning (Economic)**

The draft *Warriewood Valley Strategic Review Addendum Report* continues the orderly planned development of the Warriewood Valley Release Area, to ensure the delivery of a viable land release.

### **5.4 Leading an Effective & Collaborative Council (Governance)**

Landowner and community participation will be facilitated during the exhibition of the draft *Warriewood Valley Strategic Review Addendum Report* to ensure that decision making is ethical, accountable and transparent.

### **5.5 Integrating our Built Environment (Infrastructure)**

The intention of the draft *Warriewood Valley Strategic Review Addendum Report* is to continue to enhance the liveability and amenity of Warriewood Valley Release Area by locating an appropriate mix of land uses and development and associated infrastructure through reasonable developer contribution rates.

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## 6.0 EXECUTIVE SUMMARY

- 6.1 On 12 June 2013 Council unanimously endorsed the *Warriewood Valley Strategic Review Report 2012* (2012 Strategic Review Report) as the planning framework for the majority of undeveloped residential sectors of Warriewood. Council in adopting the 2012 Strategic Review Report was informed that a future report would be presented to Council following a review of the remaining undeveloped lands in the Release Area.
- 6.2 Since the adoption of the 2012 Strategic Review Report, Council has undertaken a review of the *Warriewood Valley Section 94 Contributions Plan* and associated master planning documents, including the *Warriewood Valley Landscape Masterplan (Public Domain) and Design Guidelines*, as well as the *Pittwater Public Open Space and Recreation Strategy*.  
Since that time, Council has also considered and determined a Planning Proposal for the rezoning of privately owned land within the Southern Buffer.
- 6.3 The draft *Warriewood Valley Strategic Review Addendum Report* (draft Addendum Report) investigated the remaining undeveloped lands in the Release Area by reviewing opportunities and constraints in order to determine the most appropriate land use and identify a suitable forward path for these sectors.
- 6.4 Based on the opportunities and constraints analysis, the draft Addendum Report recommends a number of amendments to the current Warriewood Valley Release Area boundary and the land uses designated for particular sectors within the *Warriewood Valley Planning Framework 2010*.
- 6.5 The Addendum Report is presented to Council to be endorsed for public exhibition for a minimum of 28 days. Following the exhibition period the submissions will be reviewed before a further report is brought back to Council recommending the adoption of the Addendum Report. A number of relatively minor amendments to Pittwater LEP 2014 will be necessary to bring into force the draft Addendum Report's recommendations and will be outlined in this future report.

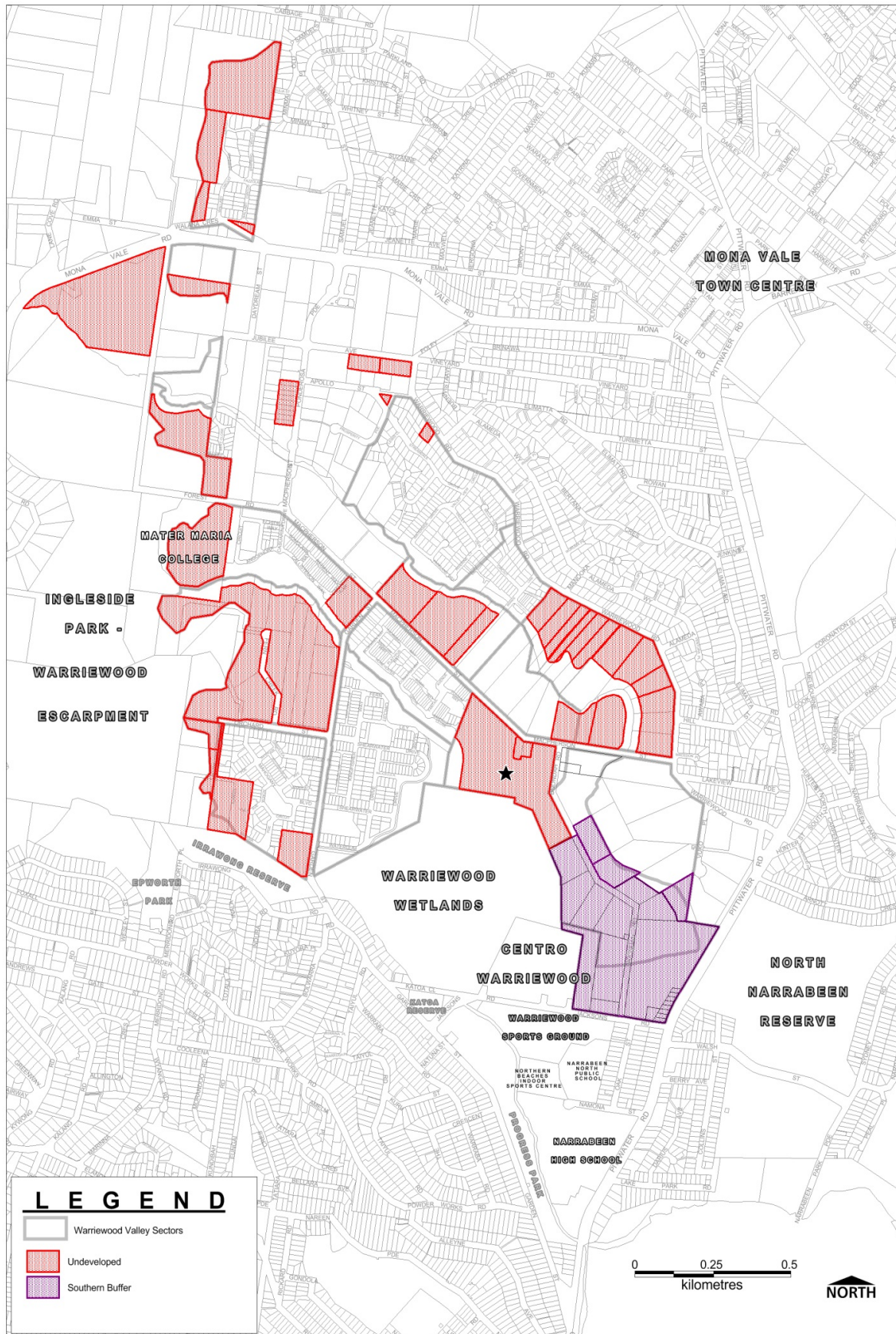
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## RECOMMENDATION

1. That Council note the contents of this report.
2. That the draft *Warriewood Valley Strategic Review Addendum Report* (tabled separately) be placed on public exhibition for 28 days.
3. That prior to the public exhibition commencing, all affected land owners and the Warriewood Valley Residents Association be invited to meet with Council staff during the public exhibition period to discuss the recommendations of the draft *Warriewood Valley Strategic Review Addendum Report*.
4. That a future report on the outcomes of the public exhibition, including a Planning Proposal to bring into effect the draft *Warriewood Valley Strategic Review Addendum Report*, be presented to Council for further consideration.

Report prepared by  
Tija Stagni, Senior Planner - Land Release

Andrew Pigott  
**MANAGER, PLANNING & ASSESSMENT**





**C5.1 Warriewood Valley Strategic Review Report - Outcomes of public exhibition and final report****Meeting:** Council**Date:** 12 June 2013

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**COUNCIL DECISION**

1. That Council note the following:-
  - (a) The responses to the exhibition process detailed in the Analysis of Submissions Report (**tabled** separately).
  - (b) The **attached** Final Probity Report prepared by Procure Group for the Warriewood Valley Strategic Review (see **Attachment 3**).
2. That Council, subject to correcting of the typographical mistakes detailed in 7.8 of this report and noting that the attached Planning Proposals are to be amended to reflect the dwelling yields nominated in actions 5 and 6 of this recommendation, adopt the Warriewood Valley Strategic Review Report.
3. That Council in adopting the Warriewood Valley Strategic Review Report, totally rejects the Director-General's comments in paragraph 4 of his letter dated 1 May 2013 (see **Attachment 6**) as the comments have no legal effect.
4. That Council endorse progression of the statutory rezoning process to increase the maximum dwelling yield permitted for the sectors listed below, which have a PMF free evacuation route, as set out in the attached Planning Proposal which is to be forwarded to the Department seeking Gateway Determination (see **Attachment 7**).
  - Sector 101, having a maximum 4 dwellings
  - Buffer 1b, having a maximum 24 dwellings
  - Buffer 1c, having a maximum 18 dwellings
  - Buffer 1d, having a maximum 1 dwelling
  - Buffer 1e, having a maximum 15 dwellings
  - Buffer 1f, having a maximum 21 dwellings
  - Buffer 1g, having a maximum 23 dwellings
  - Buffer 1h, having a maximum 1 dwelling
  - Buffer 1i, having a maximum 39 dwellings
  - Buffer 1j, having a maximum 40 dwellings
  - Buffer 1k, having a maximum 21 dwellings;
  - Buffer 1L, having a maximum 67 dwellings.
5. That Council endorse the progression of the statutory rezoning process to rezone Sectors 901A (including 9 Fern Creek Road) and Orchard Street Road Reserve (north-east portion), 901B, 901C, 901F and 9 Fern Creek Road to 2(f) (Urban Purposes – Mixed Residential); and to increase the maximum dwelling yield permitted for the sectors listed below which have a Flood Planning Level free evacuation route but are isolated during the PMF event, subject to the NSW Government agreeing to emergency flood response being facilitated by an evacuation route at the 1% AEP, as set out in the attached Planning Proposal which is to be forwarded to the Department seeking Gateway Determination (see **Attachment 8**).
  - Sector 301, having a maximum 53 dwellings
  - Sector 302, having a maximum 84 dwellings
  - Sector 303, having a maximum 29 dwellings

- Sector 501 (also known as Sector 5), having a maximum 94 dwellings
  - Sector 801, having a maximum 38 dwellings
  - Sector 901A (excluding 9 Fern Creek Road) and Orchard Street Road Reserve (north-east portion), having a maximum 192 dwellings
  - Sector 901B, having a maximum 36 dwellings
  - Sector 901C, having a maximum 22 dwellings
  - Sector 901F, having a maximum 14 dwellings
  - Sector 10B, having a maximum 45 dwellings
  - Buffer 2a, having a maximum 29 dwellings; and
  - Buffer 3b, having a 9 dwellings.
6. That Council endorse the progression of the statutory rezoning process to rezone the sectors listed below and where applicable establish a maximum dwelling yield permitted which have a Flood Planning Level free evacuation route but are isolated during the PMF event, subject to the NSW Government agreeing to emergency flood response being facilitated by an evacuation route at the 1% AEP, as set out in the attached Planning Proposal which is to be forwarded to the Department seeking Gateway Determination (see **Attachment 10**):
- Sector 901D, 901E and Orchard Street Road Reserve (north-west portion), having a maximum of 16 dwellings
  - Sector 901G, having a maximum of 6 dwellings.
7. That Council incorporate the proposed amendments set out in actions 4, 5 and 6 above into the draft Pittwater Local Environmental Plan 2013 prior to its second exhibition.
8. That Council confirm that Sectors 901H (portion of 4 & 5 Fern Creek Road), 10A.1 (portion of 115 Orchard Street) and 10A.2 (portions of 111, 111a & 113 Orchard Street) have no further development opportunity due to existing environmental constraints considers that these sectors may be removed from the Warriewood Valley Release Area.
9. That Council is willing to give further consideration to the inclusion of Sectors 901H, 10A.1 and 10A.2 subject to the landowners demonstrating that their sites have development potential.
10. That landowners in the Southern Buffer be advised of the opportunity to make a rezoning application for their properties, collectively or individually. Such application is to address the development constraints and opportunities that affect those lands.
11. That Council note that the Pre-Gateway Review process requested by landowner of 120 Mona Vale Road has progressed to the Joint Regional Planning Panel for its recommendation to the Minister for Planning.
12. That Council note that affordable housing provision cannot be achieved and agree it will not be included in the new Section 94 Plan for Warriewood Valley.
13. That a future report be provided to Council following a review of the following documents relating to Warriewood Valley:
- Warriewood Valley Water Management Strategy
  - Warriewood Valley Water Management Specification, following release of the Narrabeen Lagoon Flood Study update
  - Applicable development controls within Pittwater 21 Development Control Plan
  - Warriewood Valley Section 94 Contributions Plan, Roads Masterplan and Landscape Masterplan (Public Domain)
  - Warriewood Valley Planning Framework 2010 in relation to the Southern Buffer lands and those lands not covered under the Strategic Review
  - Narrabeen Lagoon Floodplain Risk Management Study & Plan
14. In accordance with 14.4 of this report, affected landowners are to also be advised that, in the interim, the Warriewood Valley Planning Framework 2010 continues to be the adopted planning strategy applying to their lands.



15. That those persons and organisations that made a submission on the Draft Warriewood Valley Strategic Review Report be advised of Council's decision.

(Cr White / Cr Griffith)

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**Procedural Motion (COUNCIL DECISION)**

That Cr Grace be granted an extension of time to complete his address to the meeting on this item.

(Cr McTaggart / Cr Griffith)

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**Procedural Motion (COUNCIL DECISION)**

That Cr Townsend be granted an extension of time to complete her address to the meeting on this item.

(Cr Grace / Cr Millar)

**Notes:**

1. A division was duly taken resulting in the following unanimous vote:

<b>Aye (For)</b>	<b>No (Against)</b>
Cr Griffith	Nil
Cr Grace	
Cr McTaggart	
Cr Millar	
Cr Townsend	
Cr White	
Cr Young	

2. Cr Hegarty retired from the meeting at 7.04pm, having declared a pecuniary interest in Item C5.1 – Warriewood Valley Strategic Review Report – Outcomes of public exhibition and final report - and took no part in discussion and voting on this item. The reason provided by Cr Hegarty was:

*"My mother has a property within the Warriewood Valley and I have previously abstained on items of consideration near her property."*

3. Cr White had declared a less than significant non-pecuniary interest in Item C5.1 – Warriewood Valley Strategic Review Report – Outcomes of public exhibition and final report. The reason provided by Cr White was:

*"Parents live opposite Meritons. Area around them developed. No real pecuniary interest."*

Cr White elected to remain in the meeting and participate in both discussion and voting on this matter. The reason provided by Cr White was:

*"Remote – No chance than any decision tonight would have any effect."*

4. Cr Millar submitted to the meeting a Schedule 3A Form of Special Disclosure of Pecuniary Interest in accordance with Section 451(4) of the Local Government Act 1993, and elected to remain in the meeting and participate in discussion and voting on the matter. Cr Millar declared an interest in land at 7 Orchard Street Warriewood.

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### C10.3 Outcomes of Ingleside Community Workshops

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**Meeting:** Natural Environment Committee

**Date:** 2 June 2014

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**STRATEGY:** Land Use & Development

**ACTION:** Commence and progress the Ingleside precinct planning process with the State Government.

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#### PURPOSE OF REPORT

- To advise Council of the outcomes of the recent design workshops held with the Ingleside community.
  - To present to Council the *Ingleside Design Workshops Outcomes Report* (refer to **Attachment 1**) and the *Ingleside Design Workshop Evaluation Report* (refer to **Attachment 2**).
- 

#### 1.0 BACKGROUND

- 1.1 In March 2014, Council in partnership with the Department of Planning & Environment and UrbanGrowth NSW, held the first round of design workshops to gather the community's ideas and aspirations for the future of Ingleside. The workshops were in line with commitments made for proactive community consultation in the Ingleside Community Participation Plan.
- 1.2 The first round of Ingleside design workshops were held on:
- Saturday 1 March 2014, 2pm – 5pm (Mona Vale Memorial Hall)
  - Tuesday 4 March 2014, 6.30pm – 9.30pm (Monash Country Club)
  - Monday 10 March 2014, 6.30pm – 9.30pm (Monash Country Club)
- 1.3 The workshops were facilitated by an independent consultant, Elton Consulting, and attended by approximately 162 community members. Attendees at each session were split into 8 groups, which were guided by a table facilitator comprising of staff from Council, the Department of Planning & Environment and the master planning consultants.
- 1.4 Elton Consulting and the table facilitators led the community members through four group exercises designed to gather feedback, stimulate discussion on various issues and identify opportunities for development in Ingleside. The workshop exercises included:
- Identifying the sustainability principles participants would like to see incorporated into the future development in Ingleside;
  - Discussing different housing types, open space, retail & employment and social infrastructure that people would like to see in Ingleside;
  - A mapping exercise requiring participants to identify where they felt various housing types, social infrastructure and conservation areas should be located in Ingleside; and
  - Discussion around the concept of a trade-off, which asked the community to consider greater levels of development in certain areas of Ingleside to enable the preservation and management of high value ecological land in other areas.

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## **2.0 KEY OUTCOMES FROM THE INGLESIDE DESIGN WORKSHOPS OUTCOMES REPORT**

- 2.1 Elton Consulting have prepared the Ingleside Design Workshops Outcomes Report (Outcomes Report) which collates and synthesises the information and data gathered at the workshops (refer to **Attachment 1**).
- 2.2 The Outcomes Report identifies the key sustainability principles that participants would like to see incorporated into the planning process for Ingleside. The report recognises the range of sustainability principles that are important to the community.
- 2.3 Participants generally agreed that all housing types could be suitable in Ingleside if they are appropriately located and maintain the look and feel of the area. The Outcomes Report also recognises the need for a small town centre in Ingleside, which would contribute to a sense of community and reduce local dependence on car use. It also acknowledges that there may be benefits in locating higher density residential development in close proximity to a town centre.

Large lot housing was the preferred housing choice in Ingleside as it integrates well with the natural environment. However, it was acknowledged that if this is the predominant housing type, infrastructure provision, bushfire risk, conservation of environmentally sensitive land and housing affordability are likely to be issues.

- 2.4 The Outcomes Report brings together common elements regarding the character of housing, location and size of a town centre, and location of open space, recreation facilities and conservation areas as identified by participants during the mapping exercise. Three 'mud-map' options have been produced by Elton Consulting, which represent the broad range of outcomes and feedback that was gathered at the workshops.

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## **3.0 KEY OUTCOMES FROM THE INGLESIDE DESIGN WORKSHOPS EVALUATION REPORT**

- 3.1 Council staff have prepared the *Ingleside Design Workshop Evaluation Report* (Evaluation Report) which reviews the success of the workshops; identifying areas that can be improved for future workshop sessions (refer to **Attachment 2**). The Evaluation Report was compiled by collating and analysing feedback received from:
- An online survey completed by 41 workshop participants,
  - Comments from 8 table facilitators, and
  - Feedback from 12 Ingleside Community Reference Group members at its meeting of 16 April 2014.
- 3.2 A common theme from the feedback received indicated that participants would benefit from more detail on critical issues and more time to process this information prior to the workshops to enable them to provide more constructive contributions.
- 3.3 The Evaluation Report makes several recommendations to improve future workshops.

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## **4.0 NEXT STEPS**

- 4.1 The information gathered at the workshops will contribute to the master planning process. The three 'mud-map' options produced by Elton Consulting will be provided to the technical consultants for testing. Input from this testing, along with workshop feedback and other work from all technical consultants, will be utilised by the master planners to develop a draft Structure Plan.

- 4.2 The draft Structure Plan will be presented to the community for refinement at a second round of community workshops later this year. Following input from the community at the second round of workshop sessions, the draft Structure Plan will be publicly exhibited.

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## 5.0 SUSTAINABILITY ASSESSMENT

### 5.1 Supporting & Connecting our Community (Social)

The Ingleside precinct planning process will examine how any new development will be integrated into the wider Pittwater community. The community's vision for Ingleside developed through the workshops will guide the development.

### 5.2 Valuing & Caring for our Natural Environment (Environmental)

The precinct planning process will evaluate the likely environmental impacts of the land release, including impacts on the natural environment and creek systems. Best practice will be employed to lessen the ecological footprint and protect biodiversity.

### 5.3 Enhancing our Working & Learning (Economic)

The precinct planning process will consider the likely impacts of the land release on employment containment initiatives and the attraction of employment opportunities. The precinct planning process will also consider the economic viability of development, together with affordability to deliver the necessary services and infrastructure commensurate with the future land release.

### 5.4 Leading an Effective & Collaborative Council (Governance)

Overseeing the precinct planning process is a Probity Plan prepared by a Probity Advisor. The Community Participation Plan developed for this project, aims to ensure decision-making is ethical, accountable and transparent and that stakeholders and the wider community are aware of the decisions/next steps throughout the relevant stages of the process. The recent design workshops are an important component of the governance arrangements.

### 5.5 Integrating our Built Environment (Infrastructure)

The precinct planning process will determine the infrastructure requirements for Ingleside generated by any increase in dwelling yields.

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## 6.0 EXECUTIVE SUMMARY

- 6.1 Elton Consulting have prepared the *Ingleside Design Workshop Outcomes Report* (refer to **Attachment 1**) which collates and synthesises the feedback and data gathered at the recent Ingleside community workshops held in March 2014.
- 6.2 Council staff have prepared the *Ingleside Design Workshop Evaluation Report* (refer to **Attachment 2**) which reviews the success of the workshops; making recommendations for improving future community workshop sessions.
- 6.3 The master planning consultants are currently preparing a draft Structure Plan utilising feedback received at the first round of workshops and input provided by various technical consultants. The draft Structure Plan will be presented to the community for refinement at a second round of workshops targeted for later this year.
- 6.4 Following input from the community at the second round of workshops, the draft Structure Plan will be further refined prior to public exhibition.

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## **RECOMMENDATION**

1. That Council note the contents of this report.
2. That a future report be presented to Council following the second round of workshops with the Ingleside community.

Report prepared by  
Robbie Platt– Assistant Planner, Land Release

Andrew Pigott  
**MANAGER PLANNING & ASSESSMENT**

# Ingleside Design Workshops Outcomes Report

March 2014

Prepared by Elton Consulting





# Ingleside Design Workshops Outcomes Report

## General

Planning and Infrastructure, Pittwater Council and UrbanGrowth NSW are, in partnership, undertaking detailed planning for the Ingleside area.

Consistent with the project partners' commitment to proactive engagement, key stakeholders have been involved in providing perspectives on aspects of planning for the Ingleside area. This has occurred through three design workshops, involving approximately 162 participants in total.

Independent community consultation firm, Elton Consulting, were engaged to facilitate the workshops.

This report sets out the outcomes of the recent workshops. These were held on Saturday 1, Tuesday 4 and Monday 10 of March 2014, with 54, 50 and 58 participants respectively. Each workshop provided a collaborative forum for a diverse range of stakeholders to positively contribute to the future planning of the Ingleside area. The feedback contained in this report is reflective of the responses received at the workshops and should not be construed as being fully representative of opinion within the local community.

## Purpose

The Ingleside workshops brought together the project team, key stakeholders and community members in mixed groups to explore possible options for the Ingleside area, assess the strengths and weaknesses of options and identify any outstanding issues and desired community benefits deriving from any potential development. The purpose of the workshops was to:

- » Develop a deeper understanding of the full range of community views
- » Test current assumptions.

## Workshop format

The Ingleside workshops were held on:

- » Saturday 1 March, 2pm – 5pm (Mona Vale Memorial Hall)
- » Tuesday 4 March, 6.30pm – 9.30pm (Monash Golf Club)
- » Monday 10 March 2014, 6.30pm – 9.30pm (Monash Golf Club).

The workshops comprised a mix of large and small group activities, as well as time for informal interaction with the project team following the workshop.




Representatives from Planning and Infrastructure, Council and the design team facilitated the small group sessions at each of the tables.

Templates were used to capture group and individual feedback.

A copy of the Ingleside Precinct Planning booklet, as well as an opportunities map, constraints map and ecological land map were made available on each table for reference and to help with group activities.

It was noted at the outset of each workshop that although issues such as traffic, infrastructure augmentation, and zoning are important, these aspects of planning will be discussed in detail later in the planning process.

The structure of the workshops was as follows:

Ingleside Community Workshop			
  			
<b>Agenda</b>			
<b>Project</b>	Ingleside Department of Planning & Infrastructure Forums		<b>Date &amp; time</b> <b>Tuesday 4 March</b> 6.30-9.30pm
<b>Venue</b>	Monash Golf Club, Powder Works Road, Ingleside		<b>Monday 10 March</b> 6.30-9.30pm
<b>Purpose</b>	To seek community input to the early development of structure plan.		
<b>Time</b>	<b>Item No.</b>	<b>Item</b>	<b>Presenter</b>
1830	1	<b>Welcome</b>	C <sup>o</sup> Jacqueline Townsend – Mayor Pittwater Council
1835	2	<b>Introductions and Purpose</b>	Brendan Blakeley
1845	3	<b>Planning for Ingleside</b>	Paul Kobillard – Planning & Infrastructure
		<ul style="list-style-type: none"> <li>Context</li> <li>Process</li> </ul>	
1900	4	<b>Guiding Principles</b>	Brendan Blakeley
		<ul style="list-style-type: none"> <li>Individual &amp; small group exercise</li> </ul>	
1925	5	<b>Getting it right in Ingleside: Character Studies</b>	Ian Connolly
		<ul style="list-style-type: none"> <li>Small group exercise</li> </ul>	
1955	6	<b>Mapping Ingleside</b>	
		<ul style="list-style-type: none"> <li>Development opportunities                             <ul style="list-style-type: none"> <li>Small group exercise</li> </ul> </li> <li>Ecological opportunities                             <ul style="list-style-type: none"> <li>Small group exercise</li> </ul> </li> </ul>	Ian Connolly  Paul Kohn
2110	7	<b>Closing Observations</b>	Council, Master Planners
2120	8	<b>Workshop Close</b>	Brendan Blakeley
2125	9	<b>Informal discussion session</b>	Informal discussion with Project Team
2130	10	<b>Informal discussion session concludes</b>	

## Exercise 1: Sustainability principles

In 2013, the project partners together with the Ingleside Community Reference Group and Master Planners developed a set of principles pertaining to the sustainable development of Ingleside. Such principles fell under four theme areas:

1. Planning together
2. Liveable community
3. Economic prosperity
4. Value the environment

These theme areas are aligned to a triple-bottom-line approach, which incorporates environmental, social and economic aspects.

The first exercise of the workshop asked the small groups to read through the theme areas and discuss which principles they considered to be the most important for the future planning of Ingleside.

Each participant was given 4 blue dots and 2 yellow dots per theme area. The blue dots were to be placed next to the principles that participants perceived to be the most important; and the yellow dots were for the principles perceived to be of most importance to someone who might be moving to Ingleside in 10-15 years-time. The dot colours encouraged participants to think not just from their own perspective, but also from the perspective of a future resident who may have very different requirements. The yellow dot is also reflective of lead times (5-10 years) to rezone and develop land in a release area.

A summary of the results are as follows. Please find a tally of the responses in Appendix A.

### » Planning together:

Rank	Principle	Blue dots	Yellow dots
1.	Ensure timely delivery of infrastructure	54	17
2.	Balance new development with the benefits of upgrades to services & facilities for the new community	47	31
3.	Provide open and transparent community consultation	39	10

Ensuring the **timely delivery of infrastructure** was seen as an integral factor in the planning of Ingleside. Participants believed that this meant better access to public transport and excellent roads, as well as quality telecommunications, water and sewerage. There was a hope that the appropriate structures and facilities available for residents from the beginning. It was recommended that shops/retail development should increase over time as the area grows and the need arises.

Participants also felt strongly about **balancing new development** with the benefits of upgrades to services and facilities for the new community. They said it was important to get it right from the beginning and make Ingleside a **model of best practice** for good and sustainable development. In order for this to happen, participants noted that open and transparent community consultation would be necessary at every stage of the project.



### » Liveable community:

Rank	Principle	Blue dots	Yellow dots
1.	Provide public spaces such as parks, sports fields and community gardens	25	20
2.	Include neighbourhood centres with sustainable retail and services for people to get together	22	21
3.	Respond to landscape, ridgelines and visually sensitive areas	28	5

There were many views regarding what it meant for Ingleside to be a liveable community. Including **neighbourhood centres with sustainable retail and services** for people to gather and meet was a popular principle, as was housing. Participants discussed Ingleside's diverse community, noting that a variety of housing types would thus be necessary in the area. They believed housing should be both **accessible and affordable**; and, must also respond to constraints such as landslip, flooding and bushfire, especially considering the very real risk that the National Park presents.

Due to Ingleside's unique visual character, participants considered that development in Ingleside should **respond to the landscape, ridgelines and visually sensitive areas**. It was suggested that the escarpment could become a climbing wall and that areas of open landscape should be provided as **public recreational spaces**, including parks, sports fields, horse-riding areas, community gardens, footpaths, bike paths, dog exercise areas and bushwalking tracks with access to the national park. Accordingly, there exists a desire for the installation of multiuse pathways that allow space for families with prams, bikes and walking frames.

Another factor believed to contribute to the liveability of Ingleside was ensuring **effective access to public transport** and community bus services. It was suggested that the area will need more bus services, more bus stops, as well as alternative routes and locations to chain up bikes near public transport stops. Popular routes could include those to Narrabeen, Mona Vale, nearby beaches, Chatswood, North Sydney and the city. This kind of planning was seen as essential to reducing the need for car use in the area and therefore contributing to the creation of a sustainable community.

### » Economic prosperity:

Rank	Principle	Blue dots	Yellow dots
1.	Improve access to public transport	37	18
2.	Assess and plan for increased capacity of education services, healthcare and childcare etc.	23	22
3.	Create employment and learning opportunities	23	11

**Improving access to public transport** was also seen as a principle that could contribute to the area's economic prosperity. It was discussed that the location of public transport stops near local shops and businesses as well as the **development of new work models** in the area, such as shared business space and market style shops, would be good for the local economy.

**Fostering local employment and learning** through creating local schools, childcare and healthcare centres, was viewed as another priority for the community of Ingleside. This, partnered with a good telecommunications service encouraging Ingleside residents to work from home, was believed to help alleviate additional issues such as traffic congestion heading out of the area.

Another popular point was to **ensure services such as power are underground** because of the danger that power lines pose to households and power poles to traffic.



» **Value the environment:**

Rank	Principle	Blue dots	Yellow dots
1.	Create development that is sustainable and ecologically sensitive	44	26
2.	Appropriately manage waste water and reduce water use	30	12
3.	Encourage development that aims for zero impact on the environment	25	9

Many participants felt strongly that there must be a **balance** between the development outcomes and retaining the existing flora and fauna of Ingleside. Accordingly, it was discussed that planners and developers should create an area that is sustainable and ecologically sensitive, aiming for **zero environmental impact**. It was suggested that this could be achieved through the use of solar panels, low impact infrastructure, riparian set back protection zones, vegetation corridors, habitat links, cycleways, walkways, water tanks, and water sensitive urban design. One participant noted that 'green rebates' could be implemented in order to encourage this kind of sustainability.

Great value was placed on **protecting threatened animals, birds and plant species** during the development process. Some participants believed this could happen through putting fences along Mona Vale Road and building connectivity between the wildlife corridors on either side of the road. A participant called for a detailed ecological study to be done (and made available publicly) addressing important issues such as wildlife corridors, core habitat and threatened species.



## Exercise 2: Housing typologies

This exercise asked participants to discuss the various types of housing facilities and open spaces that could be considered for Ingleside. Although many preferred large lot housing, the general consensus was that a wide variety of housing types would be fine, if they are placed in the appropriate areas and maintain the look and feel of Ingleside. The tables below summarise common responses.

Table 1 Large lot housing

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>&gt; Unique housing type close to the city</li> <li>&gt; Nice integration with bush – tree house design</li> <li>&gt; Could have a number of houses existing as separate dwellings on these large lots</li> <li>&gt; Lower environmental impacts and less impact on infrastructure</li> <li>&gt; Keeps the natural environment as green and open as possible</li> <li>&gt; Accommodates existing uses, such as horse riding</li> <li>&gt; Could act as a buffer to the National Park</li> <li>&gt; Available land could be used to grow produce for the local community.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Socially isolating</li> <li>&gt; Big lawns could be hard to maintain</li> <li>&gt; Looks too country style</li> <li>&gt; Bush fire risk</li> <li>&gt; Waste of land – doesn't drive new services</li> <li>&gt; Construction costs too high because of bush fire regulations</li> <li>&gt; Won't help in achieving housing targets</li> <li>&gt; Housing could become too expensive.</li> </ul>
Issues to be managed	
<ul style="list-style-type: none"> <li>&gt; Waste water management systems on site to contain run off within the property</li> <li>&gt; Should be required to be self-sufficient with power, water and sewerage</li> <li>&gt; Appropriate in places of higher visibility</li> <li>&gt; Low impact infrastructure such as underground power lines</li> <li>&gt; Need to restrict clearing on these lots</li> <li>&gt; Built with non-combustible materials to address bushfire risks.</li> </ul>	

Table 2 Smaller lot housing

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>&gt; Affordable</li> <li>&gt; Opportunities for combined services – solar panels, stormwater management, water tanks</li> <li>&gt; Single level, smaller lot dwellings will be good for the elderly/less mobile</li> <li>&gt; Good for younger people who value social interaction</li> <li>&gt; Appropriate in areas of low visibility</li> <li>&gt; Frees up zones for green corridors/open space</li> <li>&gt; Will add a village atmosphere to the area.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Density is too high for Ingleside</li> <li>&gt; Too sterile, too modern, no character</li> <li>&gt; No privacy and sunlight</li> <li>&gt; Increases amount of cars and traffic</li> <li>&gt; High built up areas create stressful environments and social issues</li> <li>&gt; Will devalue the area</li> <li>&gt; Too much like Warriewood Valley</li> <li>&gt; Could obstruct others' views</li> <li>&gt; Creates the need for more parks.</li> </ul>
Issues to be considered	
<ul style="list-style-type: none"> <li>&gt; Wide streets to allow for on street parking</li> <li>&gt; Provision of infrastructure to provide for this kind of typology</li> <li>&gt; Balance this kind of housing with open space and large lot properties</li> <li>&gt; Variable street setbacks.</li> </ul>	



**Table 3 Group/Cluster housing**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>&gt; Affordable</li> <li>&gt; Good for young families</li> <li>&gt; Would drive infrastructure</li> <li>&gt; Caters to young people, e.g. students renting, first home buyers</li> <li>&gt; Low maintenance</li> <li>&gt; Good for promoting common interaction.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Too much like Warriewood Valley</li> <li>&gt; Contradictory to the green character of Ingleside</li> <li>&gt; Could devalue the area</li> <li>&gt; Too dense and suffocating for this area – would spoil the open space attraction of the area</li> <li>&gt; Could obstruct views.</li> </ul>
Issues to be considered	
<ul style="list-style-type: none"> <li>&gt; Needs to be offset by open areas and wildlife corridors</li> <li>&gt; Will need well-designed common spaces</li> <li>&gt; Garbage collection issues</li> <li>&gt; Car slots that can bought as needed, rather than dedicated garages</li> <li>&gt; Three storey maximum</li> <li>&gt; Set back from the ridge line</li> <li>&gt; Will need good access to public transport and shops</li> <li>&gt; Mutual colour scheme in neutral tones</li> <li>&gt; Balance between built form and natural landscape</li> <li>&gt; Height of trees stunted by shallow soil - hard to hide group housing behind canopy</li> <li>&gt; Would need lifts for elderly</li> <li>&gt; This kind of housing is already provided in nearby suburbs.</li> </ul>	

**Table 5 Village and local centres**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>&gt; Would create a community, local hub vibe</li> <li>&gt; Reduces need for car use if it is local</li> <li>&gt; Would sustain local economy</li> <li>&gt; External seating, coffee shops, street food and pop-up shops would help to create a positive village atmosphere</li> <li>&gt; Would provide people with the daily essentials and access to medical/professional services</li> <li>&gt; Takes the load off Mona Vale</li> <li>&gt; Common entertainment area would add a cultural element of Ingleside</li> <li>&gt; Could expand on existing small commercial area Off Chiltern Road.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Can go to Mona Vale, Terry Hills and Elanora already</li> <li>&gt; Will commercialise the area</li> <li>&gt; Ingleside cannot sustain local shops.</li> </ul>
Issues to be considered	
<ul style="list-style-type: none"> <li>&gt; If they are to be within walking distance, perhaps 2 centres would be necessary</li> <li>&gt; No Westfield, McDonalds, Coles, Woolworths or any big companies in the area</li> <li>&gt; Smaller lot and group housing should be positioned close to village centre and perhaps on top of the shops – concentrate the high density parts of the area to maximise green space</li> <li>&gt; Bikes paths and public transport to connect to residential areas</li> <li>&gt; Must serve the community rather than acting as a destination for 'outsiders'</li> <li>&gt; Parking.</li> </ul>	

**Table 4 Public domain and open spaces**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>&gt; Linking escarpment and other threads of bushland</li> <li>&gt; Playing fields, walking areas, bike tracks, community pool/gym and active spaces would promote a healthy lifestyle</li> <li>&gt; Could make the area into an attraction</li> <li>&gt; Pocket parks, BBQ/picnic areas and playgrounds near village centre create a strong community feel.</li> </ul>	*None cited.
Issues to be considered	
<ul style="list-style-type: none"> <li>&gt; Bushfire control.</li> </ul>	



### Exercise 3: Mapping Ingleside

After a presentation that outlined the key constraints and opportunities shaping the identification of developable areas within Ingleside, groups were asked to undertake an interactive mapping exercise. This involved the mapping of development (housing, schools, roads, shops) and ecological land (high value vs. low value) opportunities, considering what could go where. The first three maps that follow focus on the aspects of access/transport, retail/community centres and green connections that were nominated as important by workshop participants. From a community perspective, these are aspects that future planning needs to address and take into consideration. The second series of mud-maps bring together common elements regarding the disposition of housing.

Sizing of the housing typologies was generally defined according to the measurements:

- » Bush lot >1500m<sup>2</sup>
- » Large lot 600-1500m<sup>2</sup>
- » Smaller lot 300-600m<sup>2</sup>
- » Cluster/group housing <300m<sup>2</sup>

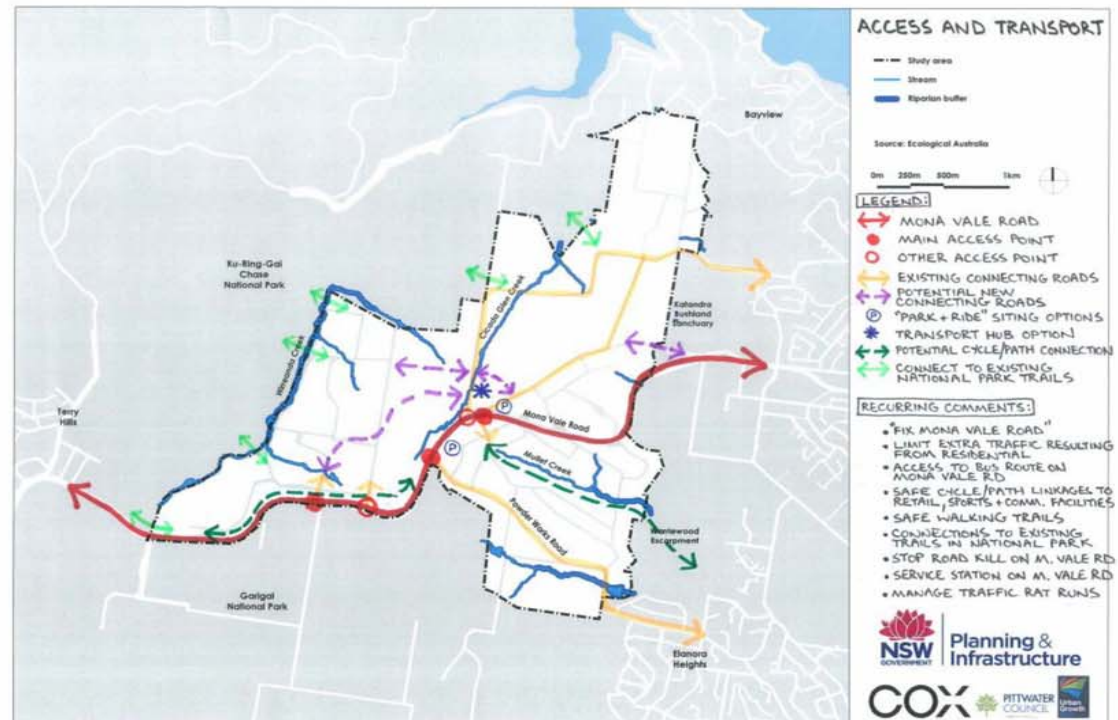
The 24 maps from which the following mud-maps have been drawn from can be found in Appendix B.

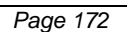
#### » Access and transport mud-map:

The following displays the contributions from participants at the workshops regarding access and transport within Ingleside.

The mud-map includes:

- > Existing roads and trouble spots within the network
- > Potential locations for new roads
- > A potential location for a transport hub
- > Potential cycle paths and National Park connections.





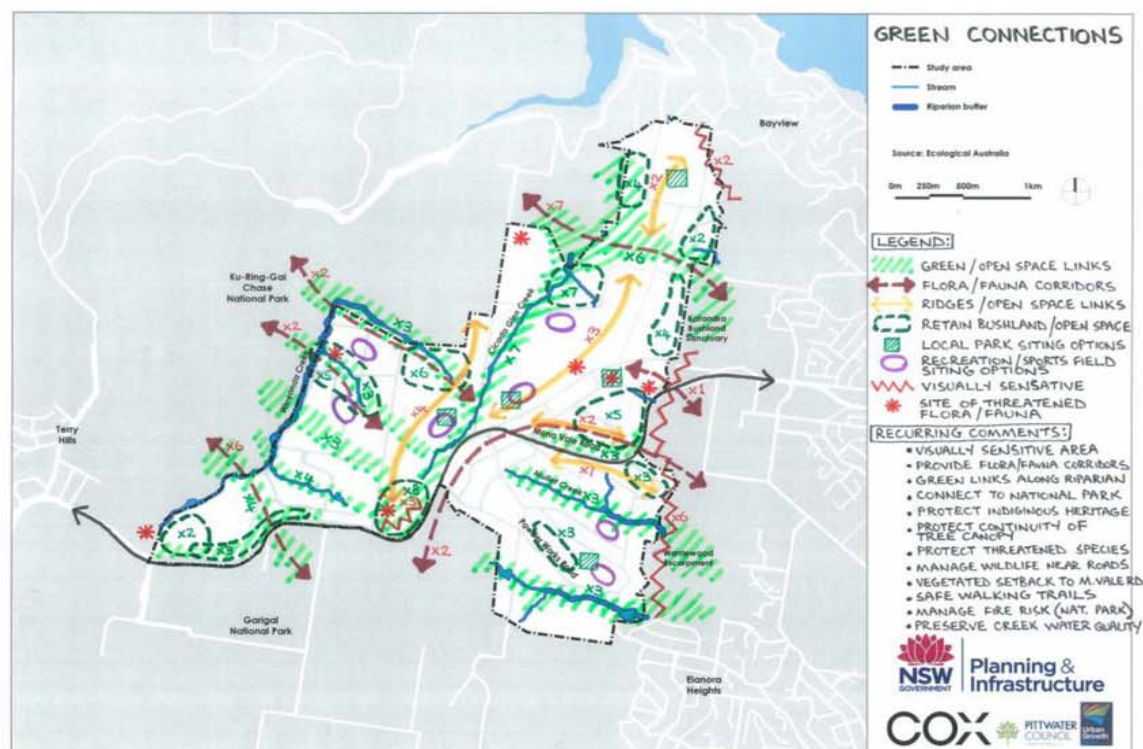
### Exercise 3: Mapping Ingleside cont'd

#### » Green connections mud-map:

The following displays the contributions from participants at the workshops regarding green connections in Ingleside.

The mud-map indicates:

- > Green/open space links
- > Flora and fauna corridors
- > Ridges/open space links
- > Locations to retain bushland/open space
- > Potential locations for community parks
- > Visually sensitive areas
- > Sites of threatened flora and fauna.



### Exercise 3: Mapping Ingleside cont'd

#### » Housing mud-map 1:

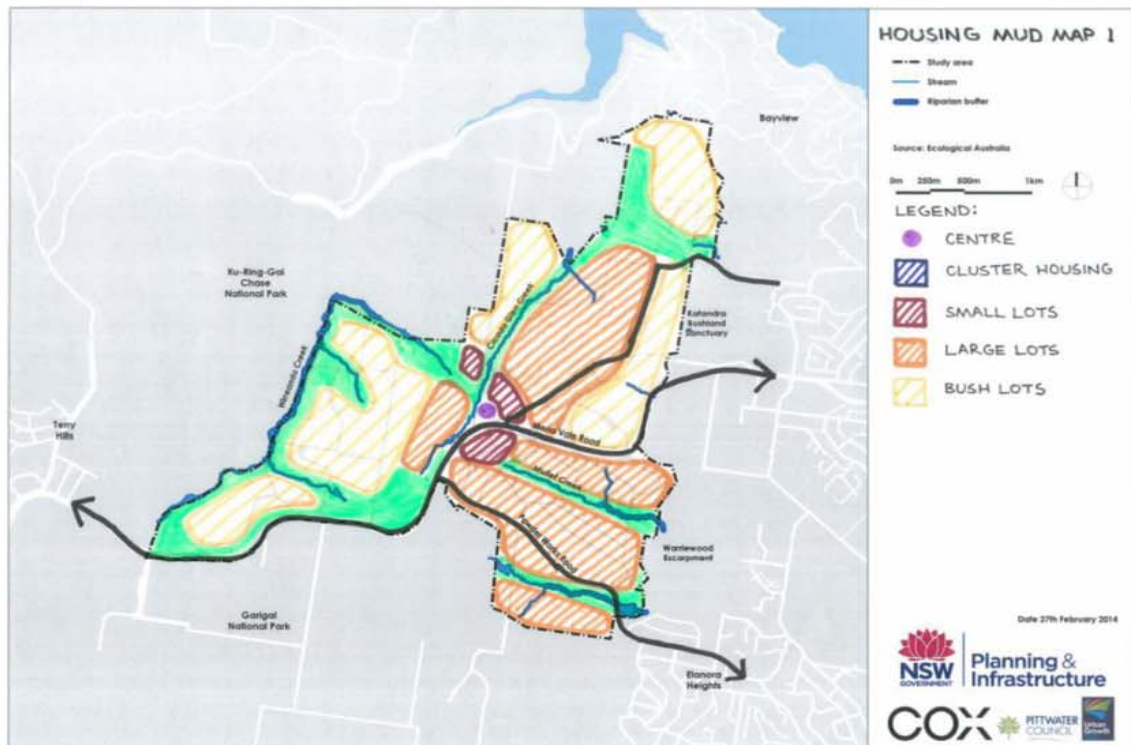
The following mud-map reflects the drawings that proposed a dominance of bush/large lot housing, with a minimal allowance for smaller lot housing situated around a proposed town centre. There was no allowance for cluster or group housing.

The advantages discussed relating to this model were:

- > Preserve bushland
- > Minimise traffic increases
- > Maintain the current look of the area.

Disadvantages were:

- > Infrastructure costs would be high
- > Maintenance of the large lots would be costly
- > Does not allow for many areas of high ecological land value to be maintained
- > This option would not be in line with the popular principle about providing a range of housing that people can afford.





### Exercise 3: Mapping Ingleside cont'd

#### » Housing mud-map 2:

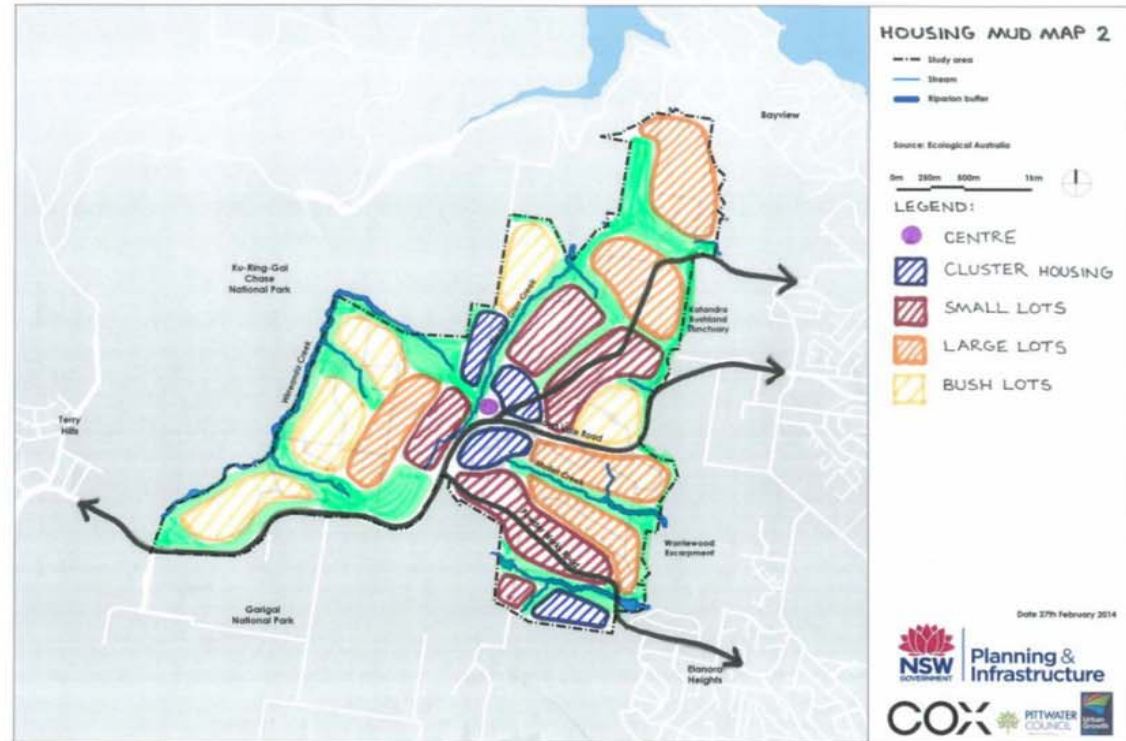
The following mud-map reflects the drawings that proposed affordable housing, balanced with ecological corridors and open space.

The advantages discussed relating to this model were:

- > Provide much needed housing diversity and affordability to the area
- > Attract more residents to the area
- > Help the local economy.

Disadvantages were:

- > Too much density in the one area
- > Increased need for infrastructure and amenities
- > Strips the area its pre-existing natural character.





### Exercise 3: Mapping Ingleside cont'd

#### » Housing mud-map 3:

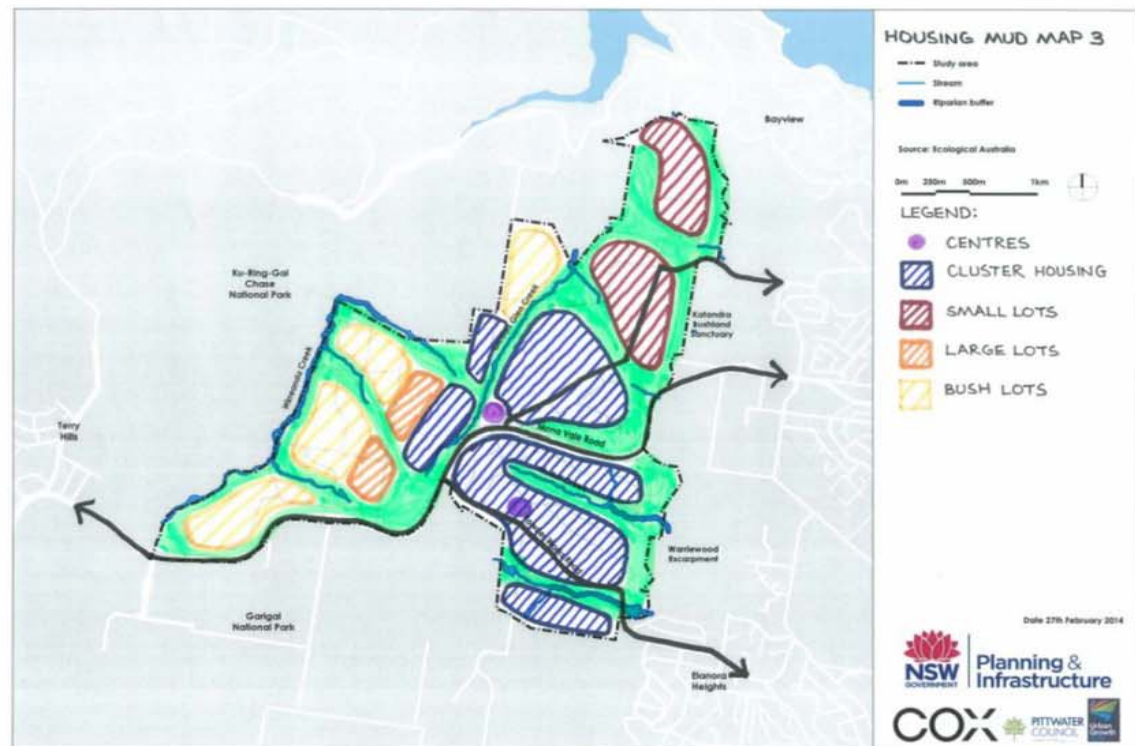
The following mud-map reflects the drawings that proposed a variety of housing types – large lot through to increased density living, with two small town centres.

The advantages discussed relating to this model were:

- > Having town centres on either side of Mona Vale Road (i.e. two centres in total) helps with accessibility – more people could walk
- > The two centres would be supported economically through the increased density surrounding such centres
- > These areas of increased density would also mean more money for quality community facilities and maintenance of high ecological land
- > It would allow for more ecological corridors and open spaces for recreation.
- > This is in line with the popular principle about balancing new development with the benefits of upgrades to services and facilities for the new community.

Disadvantages were:

- > Would the natural character of Ingleside be maintained strongly enough?
- > Increased need for infrastructure and amenities.



#### Exercise 4: Ecological opportunities

The final exercise of the workshop asked participants the question – Should we consider greater levels of development in particular areas if it funded rehabilitation and ongoing management of high value ecological land?

Groups also discussed the advantages, disadvantages and issues to be considered if Ingleside was to adopt this approach.

There was a mix of those who agreed and those who disagreed with the suggestion, and a small number who were 'unsure'. Those indicating 'yes' did so assuming the process would be honest; those indicating 'no' were concerned that development would occur in the future regardless; and, those 'unsure' were keen to see examples of where it had been done successfully before, and what the costing might be. One participant voiced a concern about putting land into Council's ownership (as opposed to National Parks and Wildlife Service) as Council may choose to sell land in future.

Advantages to the approach	Disadvantages to the approach
<ul style="list-style-type: none"><li>&gt; Would encourage the right mix of housing – providing those moving to the area with choice</li><li>&gt; Areas of low ecological value could be better used, and those of higher value could be saved</li><li>&gt; Clustering in some areas would provide more open space in other areas</li><li>&gt; Better than blanket development</li><li>&gt; Lowers the area's environmental impact</li><li>&gt; Would enable funding for parks, cycleways, creek line corridors etc.</li></ul>	<ul style="list-style-type: none"><li>&gt; Bushfire threat</li><li>&gt; It is a trade-off and too expensive</li><li>&gt; Once the land is developed on, there is no turning back</li><li>&gt; Would be unfair to landowners whose land is deemed undevelopable.</li><li>&gt; Could mean that small lot and group housing become the majority housing type</li><li>&gt; It would have an unattractive visual impact</li><li>&gt; If it is too strict, it may deter development</li><li>&gt; Is an excuse to justify development.</li></ul>
Issues to be considered if the approach were to be adopted	
<ul style="list-style-type: none"><li>&gt; Roundabouts instead of traffic lights in the developed areas</li><li>&gt; Drainage – ability to manage water flow</li><li>&gt; Governance of allocated ecological space</li><li>&gt; Ongoing costs and management – strong management structure</li><li>&gt; Compensation for those owning land in the high value ecological land areas, not benefiting from development</li><li>&gt; Connectivity between the areas</li><li>&gt; Need to ensure that scale of the increase in development is carefully calculated and managed</li><li>&gt; Creek line corridors</li><li>&gt; Equitable development</li><li>&gt; Stakeholders would need more information about what it would look like and what it would mean for Ingleside, before decisions could be made.</li></ul>	

#### Key findings and conclusions

The Ingleside community workshops resulted in the exploration of planning principles, consideration of housing typologies and the mapping of perceived development and ecological land opportunities/constraints.

A number of common findings from the workshops will guide the future planning of Ingleside. They include:

- > Participants support a planning process that is ecologically sensitive and sustainable, involving a mix of economic, social and environmental principles
- > Particular emphasis is placed upon making Ingleside a liveable place through improving access to public transport and balancing new development with the benefits of upgrades to services and facilities for the new community
- > Planning for a wide range of housing that is affordable is seen as necessary in providing for a variety of residents – these must be placed in appropriate areas and maintain the natural character of the area
- > Some participants expressed concern that Ingleside may lose its unique ecological character in the development process
- > Those in support of higher density housing feel that a two-three storey building maximum is appropriate. Compatibility with the landscape and buildings that sit below the canopy were also seen as important attributes of higher density housing
- > Although many understand the need for higher density living, a general preference toward large lot housing was apparent
- > Some participants expressed reservations about the planning process and that development of Ingleside will occur irrespective of what the community want to see.

#### Next steps

These workshops have functioned as a valuable input into the initial phase of the project. The master planning team will now refine development options for Ingleside by testing and verifying the points raised within this report with more evidence from technical studies. This will then be used to prepare a structure plan, which will be presented in the next round of community workshops, which are likely to be held later in 2014.

## Appendix A – Guiding Principles tally

<b>1.</b>	<b>Planning together</b>	
a)	Provide open and transparent community consultation	10 yellow; 39 blue
b)	Consider the economic feasibility	15 yellow; 13 blue
c)	Ensure timely delivery of infrastructure	17 yellow; 54 blue
d)	A collaborative and evidence based approach	7 yellow; 23 blue
e)	Balance new development with the benefits of upgrades to services & facilities for the new community	31 yellow; 47 blue

<b>2.</b>	<b>Liveable community</b>	
a)	Design flexible and desirable places	2 yellow; 11 blue
b)	Respond to landscape, ridgelines and visually sensitive areas	5 yellow; 28 blue
c)	Deliver housing that responds to constraints such as bushfire, flooding and landslip	3 yellow; 16 blue
d)	Provide new housing that's sympathetic to the Ingleside environment	4 yellow; 25 blue
e)	Include neighbourhood centres with sustainable retail and services for people to get together	21 yellow; 22 blue
f)	Provide public spaces such as parks, sports fields and community gardens etc	20 yellow; 25 blue
g)	Develop different housing types that meet the needs of different households	4 yellow; 21 blue
h)	Provide a wide range of housing that people can afford	20 yellow; 12 blue
i)	Provide a housing mix that promotes good amenity	2 yellow; 12 blue
j)	Provide a safe and secure community that's easy to get around	3 yellow; 13 blue
k)	Manage the increase in traffic along Mona Vale Road	3 yellow; 23 blue
l)	Consider Powderworks Rd safety and amenity	1 yellow; 9 blue
m)	Create a connected and accessible street network	2 yellow; 1 blue
n)	Reduce the need for car use through good planning and services	6 yellow; 6 blue
o)	Improve access to public transport and community bus services	12 yellow; 11 blue

<b>3.</b>	<b>Economic prosperity</b>	
a)	Create employment and learning opportunities	11 yellow; 23 blue
b)	Assess and plan for increased capacity of education services, healthcare and childcare etc.	22 yellow; 23 blue
c)	Locate shops and businesses near housing and public transport	10 yellow; 21 blue
d)	Encourage efficiency to reduce long term running costs	3 yellow; 8 blue
e)	Include water sensitive urban design	3 yellow; 15 blue
f)	Improve access to public transport	18 yellow; 37 blue
g)	Provide a comprehensive waste water management system	1 yellow; 15 blue
h)	Ensure services such as power are underground	2 yellow; 21 blue
i)	Encourage home-based business	3 yellow; 10 blue
j)	Develop new work models such as shared spaces for small business	6 yellow; 5 blue

<b>4.</b>	<b>Value the environment</b>	
a)	Create development that is sustainable and ecologically sensitive	26 yellow; 44 blue
b)	Encourage development that aims for zero impact on the environment	9 yellow; 25 blue
c)	Appropriately manage waste water and reduce water use	12 yellow; 30 blue
d)	Buffer traffic noise and pollution from Mona Vale Road	15 yellow; 13 blue
e)	Protect threatened animals, birds and plant species	5 yellow; 19 blue
f)	Maintain and enhance wildlife and fauna corridors	7 yellow; 26 blue
g)	Consider environments downstream of the catchment	2 yellow; 16 blue
h)	Consider protection and management of environmentally sensitive land	5 yellow; 18 blue
i)	Protect the environment and reduce the ecological footprint	6 yellow; 14 blue

## Appendix B – Mud-maps exercise















































