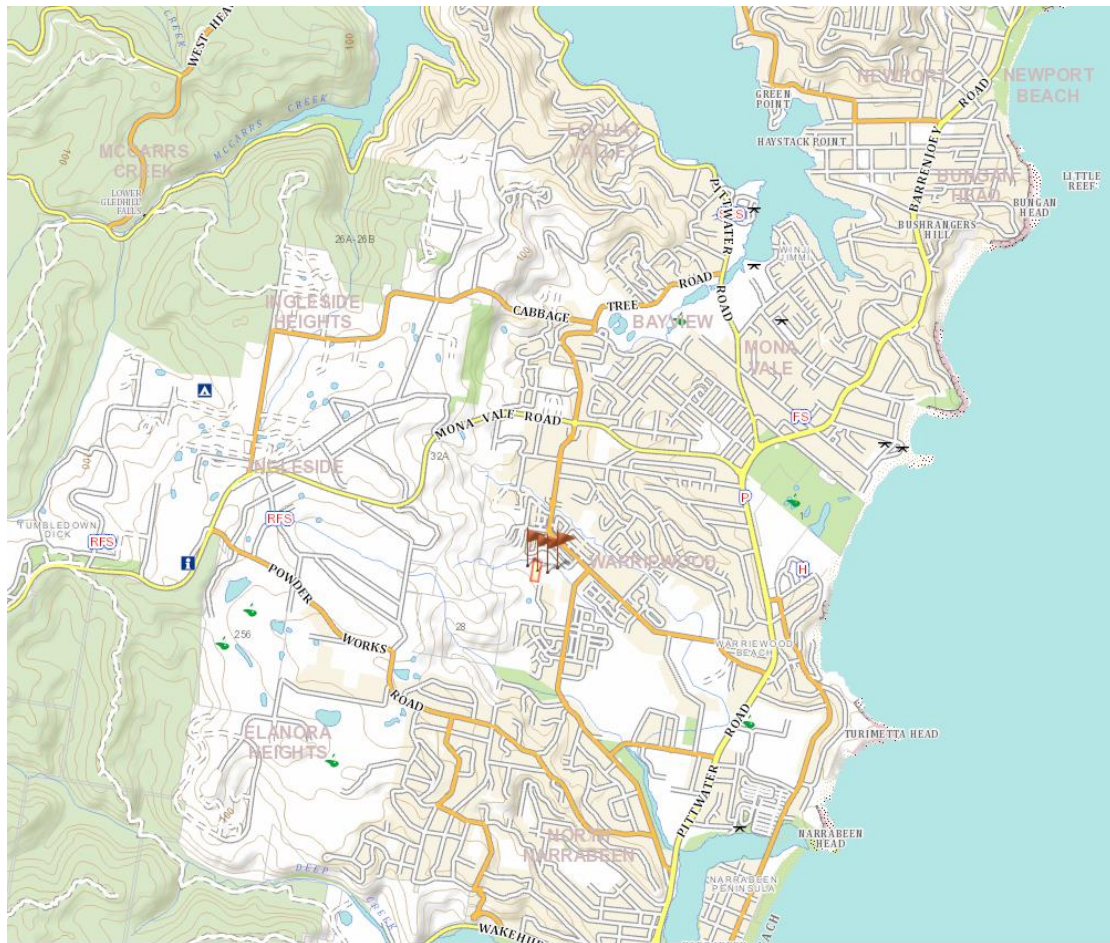


ATTACHMENT 1 – Locality Map



Source: sixmaps

ATTACHMENT 2 Checklist - Consideration of State Environmental Planning Policies

The following SEPP's are relevant to the former Pittwater (now Northern Beaches) Local Government Area. The Table identifies which of the relevant SEPPs apply to the Planning Proposal (or not) and if applying, is the Planning Proposal consistent with the provisions of the SEPP.

Title of State Environmental Planning Policy (SEPP)	Applicable	Consistent	Reason for inconsistency
SEPP No 1 – Development Standards	No	Not Applicable	-
SEPP No 14 – Coastal Wetlands	No	Not Applicable	-
SEPP No 19 – Bushland in Urban Areas	No	Not Applicable	-
SEPP No 21 – Caravan Parks	No	Not Applicable	-
SEPP No 26 – Littoral Rainforests	No	Not Applicable	-
SEPP No 30 – Intensive Agriculture	No	Not Applicable	-
SEPP No 32 – Urban Consolidation (Redevelopment of Urban Land)	No	Not Applicable	-
SEPP No 33 – Hazardous and Offensive Development	No	Not Applicable	-
SEPP No 36 – Manufactured Home Estate	No	Not Applicable	-

Title of State Environmental Planning Policy (SEPP)	Applicable	Consistent	Reason for inconsistency
SEPP No 39 – Spit Island Bird Habitat	No	Not Applicable	-
SEPP No 44 – Koala Habitat Protection	No	Not Applicable	-
SEPP No 50 – Canal Estate Development	No	Not Applicable	-
SEPP No 55 – Remediation of Land	✓	Consistent, site has been rezoned to R3 Medium Density under prior Planning Proposal.	-
SEPP No 62 – Sustainable Aquaculture	No	Not Applicable	-
SEPP No 64 – Advertising and Signage	✓	Consistent, can be applied to future development applications if advertising and signage is proposed.	-
SEPP No 65 – Design Quality of Residential Flat Development	✓	Consistent, future development of the R3 Medium Density land will be the subject of a development application addressing compliance with this SEPP	-
SEPP No 70 – Affordable Housing (Revised Schemes)	✓	Consistent, as applicable to Residential zoned land.	-
SEPP 71 – Coastal Protection	No	Not Applicable	-
SEPP (Affordable Rental Housing) 2009	✓	Consistent, as applicable to Residential zoned land.	-

Title of State Environmental Planning Policy (SEPP)	Applicable	Consistent	Reason for inconsistency
SEPP (Building Sustainability Index: BASIX) 2004	✓	Consistent, Any future residential development will need to comply with requirements regarding building sustainability	-
SEPP (Exempt and Complying Development Codes) 2008	✓	Consistent, as applicable to Residential zoned land.	-
SEPP (Housing for Seniors or People with a Disability) 2004	✓	Consistent, as applicable to Residential zoned land.	-
SEPP (Infrastructure) 2007	✓	Consistent, the Proposal does not place any restrictions on infrastructure that would oppose the intent of the SEPP	-
SEPP (Major Development) 2005	No	Not Applicable	-
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	No	Not Applicable	-
SEPP (Miscellaneous Consent Provisions) 2007	No	Not Applicable	-
SEPP (Rural Lands) 2008	No	Not Applicable	-
SEPP (SEPP 53 Transitional Provisions) 2011	No	Not Applicable	-
SEPP (State and Regional Development) 2011	No	Not Applicable	-

Title of State Environmental Planning Policy (SEPP)	Applicable	Consistent	Reason for inconsistency
SEPP (Sydney Drinking Water Catchment) 2011	No	Not Applicable	-
SEPP (Sydney Region Growth Centres) 2006	No	Not Applicable	-
SEPP (Three Ports) 2013	No	Not Applicable	-
SEPP (Western Sydney Employment Area) 2009	No	Not Applicable	-
SEPP (Western Sydney Parklands) 2011	No	Not Applicable	-
SEPP (Urban Renewal) 2010	No	Not Applicable	-

The following is a list of the deemed SEPP's (formerly Sydney Regional Environmental Plans) relevant to the former Pittwater now Northern Beaches Local Government Area.

Title of deemed SEPP, being Sydney Regional Environmental Plan (SREP)	Applicable	Consistent	Reason for inconsistency
SREP No 20 – Hawkesbury-Nepean River (No 2 -1997)	✓	Consistent – the additional quantum of open space zoned RE1 adjacent to the riparian zone will assist in the aim SREP 20 which is to protect the environment of the Hawkesbury-Nepean River system.	

ATTACHMENT 3 - Checklist – Consideration of Section 117 Ministerial Directions

(Last updated 14 April 2016)

1 Employment and Resources

	Direction	Applicable	Consistent
1.1	Business and Industrial Zones	No	Not Applicable
1.2	Rural Zones	No	Not Applicable
1.3	Mining, Petroleum Production and Extractive Industries	No	Not Applicable
1.4	Oyster Aquaculture	No	Not Applicable
1.5	Rural Lands	No	Not Applicable

Justification for inconsistency
NIL

2 Environment and Heritage

	Direction	Applicable	Consistent
2.1	Environmental Protection Zones	No	Not Applicable
2.2	Coastal Protection	No	Not Applicable
2.3	Heritage Conservation	Yes	Consistent Appropriate Clause in effect in PLEP 2014
2.4	Recreation Vehicle Areas	No	Not Applicable
2.5	Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	No	Not Applicable

Justification for inconsistency
NIL

3 Housing, Infrastructure and Urban Development

	Direction	Applicable	Consistent
3.1	Residential Zones	✓	Consistent. The development yields as they currently apply under Pittwater LEP will be maintained.
3.2	Caravan Parks and Manufactured Home Estates	No	Not Applicable
3.3	Home Occupations	✓	Consistent Clauses as they currently apply under Pittwater LEP will be maintained.
3.4	Integrating Land Use and Transport	✓	Consistent Clauses as they currently apply under Pittwater LEP will be maintained.
3.5	Development Near Licensed Aerodromes	No	Not Applicable
3.6	Shooting Ranges	No	Not Applicable

Justification for inconsistency
NIL

4 Hazard and Risk

	Direction	Applicable	Consistent
4.1	Acid Sulphate Soils	✓	Consistent, No change to the existing mapping for Pittwater LEP 2014 proposed. Despite this we note the land is shown as only Class 5 Acid Sulfate Soils on the LEP Maps (which is the lowest rank for the hazard in a 1-5 ranking).
4.2	Mine Subsidence and Unstable Land	No	Not Applicable
4.3	Flood Prone Land	✓	The subject lands are identified as flood prone land.
4.4	Planning For Bushfire Protection	✓	The subject lands are partially located within a bushfire buffer area

Justification for inconsistency with Direction 4.3

The site is adjoined by Fern Creek on the northern boundary which have been identified as flood prone lands.

Development controls within Pittwater 21 DCP prohibit vertical structures to be erected on land comprising the creek line corridor. Development controls also require that the creek line corridor be engineered to convey the 1% AEP flood. This land is required to be rehabilitated and subsequently dedicated to Council in accordance with the Warriewood Valley Section 94 Contributions Plan. This portion of land is proposed to be zoned RE1 Public Recreation and will be Council land under the terms of the land swap deed.

Justification for inconsistency with Direction 4.4

The land the subject of the Planning Proposal is identified as bush fire prone under Council's Bush Fire Prone Lands Map. The land is already zoned for its intended purpose and this will not be altered. This Planning Proposal would have the effect of reducing the number of dwellings achieved within the land mapped as Bushfire Buffer relocating the dwelling yield provision applying to this land to land not identified as Bushfire Prone., This Planning Proposal is inconsistent with this direction insofar as consultation has not yet occurred with the NSW Rural Fire Service. Consultation will be undertaken during the statutory exhibition period.

5 Regional Planning

	Direction	Applicable	Consistent
5.1	Implementation of Regional Strategies	No	Not Applicable
5.2	Sydney Drinking Water Catchments	No	Not Applicable
5.3	Farmland of State and Regional Significance on NSW Far North Coast	No	Not Applicable
5.4	Commercial and Retail Development along the Pacific Hwy, North Coast	No	Not Applicable
5.5	Development in the vicinity of Ellalong, Paxton and Millfield	No	Not Applicable
5.8	Second Sydney Airport: Badgerys Creek	No	Not Applicable
5.9	North West Rail Link Corridor Strategy	No	Not Applicable
5.10	Implementation of Regional Plans	Yes	Consistent Draft Regional Plans prepared by GSC. Consistency with A Plan for Growing Sydney discussed.

Justification for inconsistency
NIL

6 Local Plan Making

	Direction	Applicable	Consistent
6.1	Approval and Referral Requirements	✓	Consistent Council will follow procedures in progressing this Planning Proposal
6.2	Reserving Land for Public Purposes	✓	Consistent. The subject lands, Land, have been identified for open space purposes in the Section 94 Contributions Plan which will fund the acquisition of the land.
6.3	Site Specific Purposes	✓	No

Justification for inconsistency with Direction 6.3

The Planning Proposal seeks to amend the existing dwelling yield provision applying to the subject land. The application of the dwelling yield provisions within the Pittwater LEP is well established for the Warriewood Valley Release Area. The dwelling yield provisions in Part 6 of the Pittwater LEP 2014 were translated from Pittwater LEP 1993 and are not new provisions.

7 Metropolitan Planning

	Direction	Applicable	Consistent
7.1	Implementation of the Metropolitan Strategy	✓	Consistent with A Plan for Growing Sydney as discussed above.
7.2	Implementation of Greater Macarthur Land Release Investigation	No	Not Applicable
7.3	Parramatta Road Corridor Urban Transformation Strategy	No	Not Applicable

Justification for inconsistency NIL

ATTACHMENT 4 - Warriewood Valley Strategic Review Addendum Report 2014

Warriewood Valley Strategic Review Addendum Report



ADOPTED 17 NOVEMBER 2014

www.pittwater.nsw.gov.au

WARRIEWOOD VALLEY STRATEGIC REVIEW ADDENDUM REPORT 2014

Amendment no.	Date	Description	Status
1	28 May 2014	Draft Warriewood Valley Strategic Review Addendum Report presented to Council on 2 June 2014 for public exhibition	Draft
2	4 June 2014	Draft Warriewood Valley Strategic Review Addendum Report endorsed by Council on 2 June 2014 for public exhibition. Amended consistent with Council resolution of 2 June 2104 to correct typographical/mapping errors.	Exhibited Draft
3	11 November 2014	Draft Warriewood Valley Strategic Review Addendum Report amended post exhibition. Presented to Council on 17 November 2014 for adoption.	Final Draft
4	17 November 2014	Warriewood Valley Strategic Review Addendum Report adopted by Council at meeting held on 17 November 2014.	Adopted by Council

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Executive Summary



Photo by: Amanda Clarke 2011

Chapter 1

1.0 Executive Summary

Pittwater Council (Council), following consideration of matters arising from the public exhibition, has finalised the *Warriewood Valley Strategic Review Addendum Report* (Addendum Report).

1.1 Background and purpose

In June 2013 Council adopted the *Warriewood Valley Strategic Review Report 2012* (2012 Strategic Review) as the contemporary planning framework for the majority of undeveloped residential lands in the Warriewood Valley Release Area (Release Area).

The 2012 Strategic Review re-examined the *Warriewood Valley Planning Framework 2010* (2010 Planning Framework). The review process aimed to identify residential lands with development capability greater than their designated capability under the 2010 Planning Framework. The 2012 Strategic Review also investigated development opportunities in the Southern Buffer.

As a result of significant environmental constraints, existing development or current use, several sectors within the Release Area were not considered by the 2012 Strategic Review or identified with a forward path.

The purpose of this Addendum Report is to identify and recommend a forward path for these remaining sectors.

1.2 The review process

1.2.1 Identification of sectors to be reviewed

A preliminary review of land parcels within the Release Area identified the sectors without a forward path following the completion of the 2012 Strategic Review.

Until this review, these sectors have retained their land use designation under the 2010 Planning Framework, with the onus on individual landowners to alter the zoning of their land through the lodgement of a Planning Proposal.

In addition several sectors were not discussed in the 2012 Strategic Review as they were considered to be developed. Some of these sectors have been re-considered within the Addendum Report to ensure a contemporary forward path for all properties within the Release Area is provided. Additionally Sector 801 was re-examined given it was the preferred location, under the 2010 Planning Framework, for the Focal Neighbourhood Centre.

These sectors and their reason for exclusion under the 2012 Strategic Review are identified in **Table A**.

Table A: Sectors subject to further review

Sector	Property Address	Reason for exclusion from 2012 Strategic Review
172	1A Boondah Road	Investigated however unresolved or outstanding issues remain.
173	9A Boondah Road	
174	9 Boondah Road	
Southern Buffer	2, 4, 6 Jacksons Road and 1, 2, 2A, 3, 4A, 6, 8, 10, 12 Boondah Road	
120-122 Mona Vale Road	120 and 122 Mona Vale Road	
10A.1	Portion of 115 Orchard Street	
10A.2	Portion of 111, 111A and 113 Orchard Street	
901A	204 and 206 Garden Street, 2, 2A, 4, 4A, 6 and 6A Orchard Street and 9, 10 and 13 Fern Creek Road	
901C	12 Fern Creek Road	
901D	1 Fern Creek Road	
901E	Portion of 12 Orchard Street	
901G	11 Fern Creek Road	
901H	Portion of 4 & 5 Fern Creek Road	
102	185 Warriewood Road	Not investigated due to employment generating land use designation or zone.
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	
104	3 Harris Street	
105	15 Jubilee Avenue	
702	10 Jubilee Avenue	
3	14 Macpherson Street	Not investigated as they were considered to be developed.
201	4 Walana Crescent	
202	14 Walana Crescent	
203	3 Harrier Place	
204	79 Cabbage Tree Road	
802	5 Forest Road (Mater Maria Catholic College)	
10C	194 Garden Street	
Buffer Area 2	6-12 Macpherson Street	

1.2.2 Opportunities and constraints analysis

Following the identification process, a desktop analysis of opportunities and constraints was undertaken to determine the most suitable 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 affectations,
- Zoning under the *Pittwater Local Environmental Plan 2014* (PLEP 2014),
- 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 and land use planning policies.

With regard to the investigation of environmental affectations, a land capability assessment was undertaken based on Council's available mapping data. This considered environmental constraints including bushfire (updated with the adopted *Pittwater 2013 Bush Fire Prone Land Map*), flooding (updated with the adopted *Narrabeen Lagoon Flood Study 2013*), biodiversity and slope.

During the exhibition of the Addendum Report the *Pittwater Local Environmental Plan 2014* (PLEP 2014) was published and came into effect on 27 June 2014. The provisions of the published PLEP 2014 were considered in finalising the Addendum Report.

1.3 Recommendations

The opportunities and constraints analysis identified a number of sectors constrained by environmental factors or their existing land uses, as well as other relatively less constrained sectors with future development opportunities.

Based on the analysis undertaken, the Addendum Report recommends a number of amendments to the Warriewood Valley Release Area boundary, including removing some properties. It also recommends changes to the land uses designated for particular sectors under the 2010 Planning Framework, reflecting the current development constraints and opportunities.

The Release Area will be reduced from approximately 199 hectares to approximately 195 hectares.

The recommended approach for each individual sector is summarised in **Table B**. These recommendations will result in a net increase of 17 dwellings within the Release Area.

1.4 Provision of infrastructure and services

The recommendations of the Addendum Report will result in a net increase of 17 dwellings within the Release Area. This relatively minor increase in dwelling yield is unlikely to have a significant impact on the requirements for infrastructure and services in the Release Area. The additional yield is able to be accommodated through a minor amendment to the *Warriewood Valley Section 94 Contributions Plan* (Section 94 Plan).

1.5 Conclusion

The Addendum Report has provided an opportunity to re-examine the opportunities and constraints affecting the remaining sectors in the Release Area based on the most current information available. The Addendum Report re-evaluates the sector boundaries and the land uses for these sectors.

The recommended forward path for each sector has considered the relevant environmental constraints and the patterns of existing development, and will result in appropriate levels of development within the Release Area.

The Addendum Report, supported by an opportunities and constraints analysis based on contemporary information, is consistent with the community's expectations for the Release Area and will ensure continuity across Council's strategic and land use planning documents.

Table B: Summary of recommendations

Sector	Property Address	2010 Planning Framework Land Use Designation	Recommendations	Additional Dwellings
102	185 Warriewood Road	Industrial	Employment Generating land use designation recommended. Recommend landowners pursue opportunities to amalgamate to facilitate development.	-
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	Industrial	Employment Generating land use designation recommended. Recommend landowners pursue opportunities to amalgamate to facilitate development.	-
104	3 Harris Street	Industrial	Employment Generating land use designation recommended.	-
105	15 Jubilee Avenue	Industrial	Employment Generating land use designation recommended. Recommend landowners pursue opportunities to amalgamate to facilitate development.	-
172	1A Boondah Road	Conservation/Open Space	Amend Release Area boundary to include property within Southern Buffer sector. Passive Recreation land use designation recommended.	-
173	9A Boondah Road	Employment Generating	Remove from Release Area.	-
174	9 Boondah Road	Employment Generating	Remove from Release Area.	-

Sector	Property Address	2010 Planning Framework Land Use Designation	Recommendations	Additional Dwellings
Southern Buffer	2 and 4 Jacksons Road and 2, 2A, 3, 4A, 6, 8, 10, 12 Boondah Road	Employment Generating and Conservation/Open Space	Recreation Area land use designation recommended.	-
	1 Boondah Road	Employment Generating	Infrastructure land use designation recommended.	-
	6 Jacksons Road	Employment Generating	No development potential due to environmental affectations.	-
702	Portion of 10 Jubilee Avenue	Employment Generating	Remove from Release Area.	-
201	4 Walana Crescent	Traditional Residential	Remove from Release Area.	0
202	Portion of 14 Walana Crescent	Traditional Residential	Residential – Low Density land use designation recommended. Reduce yield from 4 dwellings to 1 dwelling. ¹	-3
203	Portion of 3 Harrier Place	Traditional Residential	Residential – Low Density land use designation recommended. Maintain maximum yield of 4 dwellings. ²	0
204	Portion of 79 Cabbage Tree Road	Traditional Residential	Remove from Release Area.	0
Buffer Area 2 and Sector 3	4 -16 Macpherson Street	Medium Density Residential	Recommend sector boundaries be amended to amalgamate these sectors. Retain land use designation.	0
801	23B Macpherson Street	Medium Density Residential	Residential – Medium Density and Focal Neighbourhood Centre land use designation recommended.	0

¹ Sector 20 Masterplan allocated 4 dwellings to this property.

² Sector 20 Masterplan allocated 4 dwellings to this property.

Sector	Property Address	2010 Planning Framework Land Use Designation	Recommendations	Additional Dwellings
802	Portion of 5 Forest Road	Medium Density Residential	Infrastructure land use designation recommended. Entire land parcel to be rezoned to SP2 Infrastructure (Educational Establishment).	0
9 Fern Creek Road	9 Fern Creek Road	Mixed Residential	Recreation land use designation recommended.	0
901A	204 and 206 Garden Street, 2, 2A, 4, 4A, 6 and 6A Orchard Street and 9, 10 and 13 Fern Creek Road	Mixed Residential	Clarify the dwelling yield allocation for each land parcel within the sector.	0
901C and G	12 and 11 Fern Creek Road	Mixed Residential	Recommend that Sectors 901C and 901G be required to be developed together.	0
901H	Portion of 4 & 5 Fern Creek Road	Mixed Residential	Recommend sector boundary be amended to identify only the battle-axe handles of the properties as within the Release Area. Residential – Medium Density land use designation recommended for battle-axe handles. Recommend battle-axe handles be rezoned R3 Medium Density Residential and a maximum yield of 3 dwelling be attributed. Remainder of the original sector to be removed from the Release Area.	3
10A.1	Portion of 115 Orchard Street	Mixed Residential	Remove from Release Area.	0
10A.2	Portion of 111, 111A and 113 Orchard Street	Mixed Residential	Remove from Release Area.	0

Sector	Property Address	2010 Planning Framework Land Use Designation	Recommendations	Additional Dwellings
120 and 122 ³	120 and 122 Mona Vale Road	Conservation/Open Space <i>Not originally identified as a development sector within Release Area</i>	Recommend to be identified as two separate sectors. Residential - Low Density land use designation recommended for Sector 120 (known as Clause 6.2 on Urban Release Area Map). Conservation land use designation recommended for Sector 122.	0
Creek line corridor land within Buffer Area 1 subsectors	23 to 53A Warriewood Road inclusive	Creek line corridor - Subject to environmental constraints	Recommend that only 25 metre corridor either side of the creek centreline be identified as Creek Line Corridor.	-
Additional Dwellings				17

³ Properties rezoned by Joint Regional Planning Panel Sydney East (acting as the Relevant Planning Authority). In rezoning the land, the no maximum yield was allocated; rather minimum lot size provisions apply.

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Why are we undertaking the Warriewood Valley Strategic Review Addendum?



Photo by: Amanda Clarke 2011

2.0 Why are we undertaking the Warriewood Valley Strategic Review Addendum Report?

2.1 Completion of Warriewood Valley Strategic Review Report 2012

The Warriewood Valley Strategic Review 2012 (2012 Strategic Review) was commenced in 2011 in response to the Planning Assessment Commission's (PAC) approval of the development at 79-91 Macpherson Street, Warriewood⁴ under the former Part 3A provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

In approving the development, the PAC recommended that Council and the then Department of Planning and Infrastructure review the dwelling densities, height controls, the current transport network and necessary improvement works, and infrastructure demands in Warriewood Valley and the surrounding area. The PAC recommended that the review seek to clarify the subregional role of Warriewood Square, how it relates to the rest of Warriewood Valley, the potential for higher density residential development and the opportunity for employment-generating developments adjacent to Warriewood Square.

The 2012 Strategic Review investigated all residential sectors within the Release Area considered undeveloped, as well as land within the Southern Buffer. Sectors designated for non-residential development (with the exception of the Southern Buffer) were not investigated.

For the majority of undeveloped residential sectors, the 2012 Strategic Review found that residential densities up to a maximum of 32 dwellings per developable hectare could be achieved. **Table 1** details the sectors afforded this change under the 2012 Strategic Review, as well as those sectors completed prior to the commencement of the 2012 Strategic Review, requiring no further investigation.

Some undeveloped sectors, due to significant environmental constraints were not recommended a forward path under the 2012 Strategic Review, however have been rezoned since the completion of the review.⁵ These sectors are discussed further in this report to confirm their forward path. These sectors are listed in **Table 2**.

For the remaining sectors not identified with a forward path under the 2010 Strategic Review Council's resolution of 12 June 2013 identified that a future review would be undertaken to address these. **Tables 3** and **4** identify these sectors.

Table 3 lists the remaining undeveloped residential sectors that due to significant constraints were not investigated or identified with a forward path under the 2012 Strategic Review. This table also includes Sector 801, which while designated with a forward path in terms of its potential for residential development, was not considered in terms of the location for the Focal Neighbourhood Centre for the Release Area.

Table 4 lists the remaining undeveloped land identified as employment generating sectors under the 2010 Planning Framework. This includes the Southern Buffer, which due to the significant environmental constraints and divergent landowner expectations, was not recommended a future land use designation under the 2012 Strategic Review.

⁴ Property known as 14-18 Boondah Road, Warriewood at time of approval.

⁵ Council resolution of 12 June 2013.

Table 1: Sectors afforded a forward path under 2012 Strategic Review or completed prior to the review

Sector	Density (dwellings/developable hectare) ⁶	Zoning under the PLEP 2014	Development Considered Complete?
1	15	R3 Medium Density Residential	Yes (Pre 2012)
101	26	R3 Medium Density Residential	No
2	15	R3 Medium Density Residential	Yes (Pre 2012)
301	32	R3 Medium Density Residential	No
302	32	R3 Medium Density Residential	No
303	32	R3 Medium Density Residential	No
501	32	R3 Medium Density Residential	No
6	N/A - Designated for employment generating development	IN2 Light Industrial	Yes (Pre-2012)
701	N/A - Designated for employment generating development	B7 Business Park	Yes (Pre-2012)
8	25	R3 Medium Density Residential	Yes (Pre 2012)
801	32	R3 Medium Density Residential	No
901A	32	R3 Medium Density Residential	No
901B	32	R3 Medium Density Residential	No
901C	32	R3 Medium Density Residential	No
901F	10	R3 Medium Density Residential	No

⁶ Developable area is the site area excluding the creek line corridor land.

Sector	Density (dwellings/developable hectare)⁷	Zoning under the PLEP 2014	Development Considered Complete
9 Fern Creek Road	0	R3 Medium Density Residential	No
10	15	R3 Medium Density Residential	Yes (Pre 2012)
10B	20	R3 Medium Density Residential	No
11	25	R3 Medium Density Residential	Yes (Pre 2012)
12	15	R3 Medium Density Residential	Yes (Pre 2012)
12A	21 ⁸	R3 Medium Density Residential	Yes (Pre 2012)
20	Less than 10	R3 Medium Density Residential	Yes (Pre 2012)
Buffer Area 1A	20	R3 Medium Density Residential	Yes (Pre 2012)
Buffer Area 1B	32	R3 Medium Density Residential	No
Buffer Area 1C	32	R3 Medium Density Residential	No
Buffer Area 1D	32	R3 Medium Density Residential	No
Buffer Area 1E	32	R3 Medium Density Residential	No
Buffer Area 1F	32	R3 Medium Density Residential	No
Buffer Area 1G	32	R3 Medium Density Residential	No
Buffer Area 1H	32	R3 Medium Density Residential	No
Buffer Area 1I	32	R3 Medium Density Residential	No

⁷ Developable area is the total site area excluding the creek line corridor land, measured as 25 metres either side of the creek centreline.

⁸ Developed prior to Sector 12 master plan.

Sector	Density (dwellings/developable hectare) ⁹	Zoning under the PLEP 2014	Development Considered Complete
Buffer Area 1J	32	R3 Medium Density Residential	No
Buffer Area 1K	32	R3 Medium Density Residential	No
Buffer Area 1L	32	R3 Medium Density Residential	No
Buffer Area 1M	0	R3 Medium Density Residential	No
Buffer Area 2A	25	R3 Medium Density Residential	No
Buffer Area 3A	60 ¹⁰	R3 Medium Density Residential	Yes (Pre 2012)
Buffer Area 3B	32	R3 Medium Density Residential	No

⁹ Developable area is the total site area excluding the creek line corridor land, measured as 25 metres either side of the creek centreline.

¹⁰ Development approved by Planning Assessment Commission under Part 3A of EP&A Act 1979 (provision now repealed).

Table 2: Sectors rezoned following completion of 2012 Strategic Review

Sector	Density (Dwellings/ developable hectare) ¹¹	Zoning under the PLEP 2014	Reason for Rezoning
901D and 901E	10	R3 Medium Density Residential	Forward path adopted by Council on 12 June 2013. Rezoned in accordance with Council decision of 12 June 2013.
901G	10	R3 Medium Density Residential	Forward path adopted by Council on 12 June 2013. Rezoned in accordance with Council decision of 12 June 2013.
120 Mona Vale Road	Undefined. The property is identified on the Minimum Lot Size map, allowing the property to be subdivided to a range of lot sizes.	Part E4 Environmental Living and R2 Low Density Residential	Rezoned by Joint Regional Planning Panel Sydney East (acting as the Relevant Planning Authority). A portion of site (creekline corridor zoned E2 Environment Conservation) is identified on the Land Reservation Acquisition Map under PLEP 2014.
122 Mona Vale Road	-	E2 Environmental Conservation	Rezoned by Joint Regional Planning Panel Sydney East (acting as the Relevant Planning Authority). The entire site is identified on the Land Reservation Acquisition Map under PLEP 2014.

¹¹ Developable area is the total site area excluding the creek line corridor land, measured as 25 metres either side of the creek centreline.

Table 3: Remaining residential sectors identified for review

Sector	Land Use Designation as per 2010 Planning Framework	Density (Dwellings/developable hectare) ¹² for original 'whole of sector' ¹³	Zoning under the PLEP 2014	Reason for consideration
3 & Buffer Area 2	Medium Density Residential	25 (Sector 3 and Buffer Area 2)	R3 Medium Density Residential	Anomaly due to development across sector boundaries.
801	Medium Density Residential Identified as location for the Focal Neighbourhood Centre	25 (Sector 8)	R3 Medium Density Residential Schedule 1 Additional Permitted Use ¹⁴	Sector not confirmed as location for Focal Neighbourhood Centre.
802	Medium Density Residential	25 (Sector 8)	RU2 Rural Landscape	Current land use inconsistent with Land Use Designation.
901A	Mixed Residential	25 (Sector 9)	R3 Medium Density Residential	Uncertainty surrounding dwelling yield allocation for individual properties within sector
901C	Mixed Residential	25 (Sector 9)	R3 Medium Density Residential	Sector required to be developed with 901G
901G	Mixed Residential	25 (Sector 9)	R3 Medium Density Residential	Sector required to be developed with 901C
901H	Mixed Residential	25 (Sector 9)	RU2 Rural Landscape	No outcome under 2012 Strategic Review.
10A.1	Mixed Residential	15 (Sector 10)	RU2 Rural Landscape	No outcome under 2012 Strategic Review.

¹² Developable area is the total site area excluding the creek line corridor land, measured as 25 metres either side of the creek centreline.

¹³ The 'whole of sector' approach was established for the Release Area under the *Draft Warriewood Valley Planning Framework 1997* and retained until the 2012 Strategic Review. A maximum density was historically allocated across a whole sector, acknowledging that the development within the sector may occur at a range of dwelling densities based on the characteristics and constraints within the sector.

¹⁴ Schedule 1, Clause 20 permits development for the purposes of restaurants and cafes and permits neighbourhood shops larger in floor area than otherwise permitted under PLEP 2014.

Sector	Land Use Designation as per 2010 Planning Framework	Density (Dwellings/developable hectare) ¹⁵ for original 'whole of sector' ¹⁶	Zoning under the PLEP 2014	Reason for consideration
10A.2	Mixed Residential	15 (Sector 10)	RU2 Rural Landscape	No outcome under 2012 Strategic Review.
10C	Mixed Residential	15 (Sector 10)	R3 Medium Density Residential	Capacity to be redeveloped.
201	Traditional Residential	8 (Sector 20)	SP2 Infrastructure (Cemetery)	Current use inconsistent with Land Use Designation.
203	Traditional Residential	8 (Sector 20)	R3 Medium Density Residential	Residue lot of Sector 20.
204	Traditional Residential	Not rezoned with rest of Sector 20	RU2 Rural Landscape	Residue lot of Sector 20.

¹⁵ Developable area is the total site area excluding the creek line corridor land, measured as 25 metres either side of the creek centreline.

¹⁶ The 'whole of sector' approach was established for the Release Area under the *Draft Warriewood Valley Planning Framework 1997* and retained until the 2012 Strategic Review. A maximum density was historically allocated across a whole sector, acknowledging that the development within the sector may occur at a range of dwelling densities based on the characteristics and constraints within the sector.

Table 4: Employment generating sectors identified for review

Sector	Land Use Designation under 2010 Planning Framework	Zoning of land within the Release Area under the PLEP 2014	Reason for consideration
102	Industrial	IN2 Light Industrial	Undeveloped residue lot of Stage 1 Release
103	Industrial	IN2 Light Industrial	Undeveloped residue lot of Stage 1 Release
104	Industrial	IN2 Light Industrial	Undeveloped residue lot of Stage 1 Release
105	Industrial	IN2 Light Industrial	Undeveloped residue lot of Stage 1 Release
172	Conservation/Open Space	RE1 Public Recreation	No outcome under 2012 Strategic Review.
173	Employment Generating	SP2 Infrastructure (Sewerage System)	No outcome under 2012 Strategic Review.
174	Employment Generating	SP2 Infrastructure (Sewerage System)	No outcome under 2012 Strategic Review.
Southern Buffer	Employment Generating	Part RU2 Rural Landscape, SP2 Infrastructure (Public Administration Building), RE1 Public Recreation and SP2 Infrastructure (Community Facility)	No outcome under 2012 Strategic Review.

2.2 Review of other Pittwater-wide policies and studies since the completion of the 2012 Strategic Review

2.2.1 Narrabeen Lagoon Flood Study 2013

A review of the *Narrabeen Lagoon Flood Study 1990* commenced in 2010.

*Narrabeen Lagoon Flood Study 2013*¹⁷ was adopted in November 2013. The study resulted in a slight increase in flood levels from the previously adopted design flood conditions for Narrabeen Lagoon. This information has been incorporated in the flood mapping layer utilised for the composite capability map for this report.

The updated flooding information has also been reflected in minor amendments to Council's planning documents, including the *Pittwater 21 Development Control Plan*, relevant Section 149(2) notations and the Narrabeen Creek Sea Level Rise Investigation Area.

2.2.2 Pittwater Bushfire Prone Lands Map

Council's bushfire mapping was updated in 2013 in accordance with the *Rural Fires Act 1997* and *Environmental Planning and Assessment Amendment Act 2008*.

The *Bushfire Prone Lands Map for Pittwater 2013* was adopted by Council in March 2013 and certified by the Rural Fire Service in June 2013. These maps have been used to inform the composite capability map developed for this report.

2.2.3 Pittwater Public Open Space and Recreation Strategy 2014

In 2012, Council commenced a review of the *Pittwater Open Space, Bushland and Recreation Strategy 2000* and aimed at:

- Enhancing existing public open space, sport and recreation networks,
- Encouraging social ownership and the desire to protect and use networks in such a way that enhance Pittwater's natural areas and cultural heritage.
- Expanding public open space, sport and recreation networks for the benefit of future generations that considers the needs of the community for social interaction, public health, provision of access for all, and that are sustainable in economic and environmental terms.
- Improving the quality of public open space through upgrading and managing existing networks as well as consideration given to purchasing additional land and the sale of surplus land. In particular, additional land for sports fields is required to service the growing population.

The *Pittwater Public Space and Recreation Strategy 2014* (Open Space Strategy) identifies:

- Opportunities to, where feasible, upgrade and expand the public open space network for the benefit of the broader community,
- The need to promote programs that support social interaction, access for all and are sustainable in economic and environmental terms,

¹⁷ BMT WBM (2013) *Narrabeen Lagoon Flood Study 2013*, prepared for Warringah and Pittwater Councils.

- Provision of well designed, safe open spaces that protect and enhance the natural environment, identify cultural heritage and consider aesthetics, sustainability and 'sense of place',
- The need to improve equity in the distribution of public open space and recreational opportunities,
- Provision of multi-use spaces that promote intergenerational use including additional opportunities for an ageing population and for children and young people.

Specific recommendations are proposed for tourism opportunities and for the following public spaces:

- Nature Conservation Areas,
- Walking, Cycling and Equestrian Tracks,
- Ocean Beaches,
- Foreshore Reserves and Waterways,
- Large Developed Parks,
- Structured Sports and Recreation Areas,
- Sports fields,
- Indoor Sports and Recreation Facilities,
- Village Greens, Culture and Leisure.

The Open Space Strategy confirms that there is a significant undersupply of recreation areas in the Pittwater Local Government Area (LGA). The review recognised the importance of the release areas (being Warriewood Valley and Ingleside) providing places for recreation and other facilities to meet the needs of their incoming populations to ensure that the demands of any additional population do not further exacerbate the existing shortage of recreation areas.

This strategy was adopted by Council on 13 October 2014.

2.3 Moving from the *Warriewood Valley Planning Framework 2010*

For those lands not identified with a forward path under the 2012 Strategic Review, listed in **Tables 3 and 4** above, the 2010 Planning Framework continued to apply as the planning strategy for these sectors. The 2010 Planning Framework specifies a land use designation and, for residential sectors, a maximum residential density.

In accordance with Council's resolution of 12 June 2013, a review of the 2010 Planning Framework as it applies to the remaining lands in the Release Area is necessary to confirm a contemporary forward path for all sectors.

The Addendum Report seeks to identify the forward path for the sectors identified in **Tables 3 and 4**. The Addendum Report also seeks to clarify and correct anomalies that have arisen as sectors within the Release Area have been progressively rezoned and developed.

2.4 Warriewood Valley Section 94 Contributions Plan

At its meeting of 12 June 2013, Council in adopting the 2012 Strategic Review also directed that a review of the Section 94 Plan be undertaken to articulate additional infrastructure commensurate with the development anticipated in Warriewood Valley under the 2012 Strategic Review. At the time, among the other additional infrastructure requirements, Council was advised of the increase in open space requirements, particularly the quantum of active open space land for sports fields.

The review of the Section 94 Plan included the consideration of the recommendations of the *Warriewood Valley Strategic Review Economic Feasibility Study* (Hill PDA, 2011).¹⁸

2.5 Forward Path

The Addendum Report will be a supplement to the 2012 Strategic Review, so as to achieve a single comprehensive document applying to all undeveloped lands in the Warriewood Valley Release Area.

The 2012 Strategic Review, together with the Addendum Report, supersede the 2010 Planning Framework, and form the strategic planning framework for the development of land in the Release Area.

¹⁸ Hill PDA (2011) *Warriewood Valley Strategic Review Economic Feasibility Study*, prepared for NSW Department of Planning and Infrastructure and Pittwater Council.

The Review Process



Photo by: Amanda Clarke 2011

Chapter 3

3.0 The Review Process

3.1 Identifying the land to be reviewed

The PAC's determination report (2010) advocated for a '*...comprehensive study of all undeveloped sites in the Valley including the future role of Warriewood Centre and the development potential around the centre...*'

The 2012 Strategic Review identified a forward path for undeveloped lands that were capable of intensified residential development, generally at a density up to 32 dwellings per developable hectare.

A review of all land parcels in Warriewood Valley was undertaken to identify the sites not afforded a forward path following the completion of the 2012 Strategic Review. In addition several sectors were not investigated by the 2012 Strategic Review as they were considered to be developed. These sectors have been further investigated to ensure a forward path for all properties within the Release Area is provided.

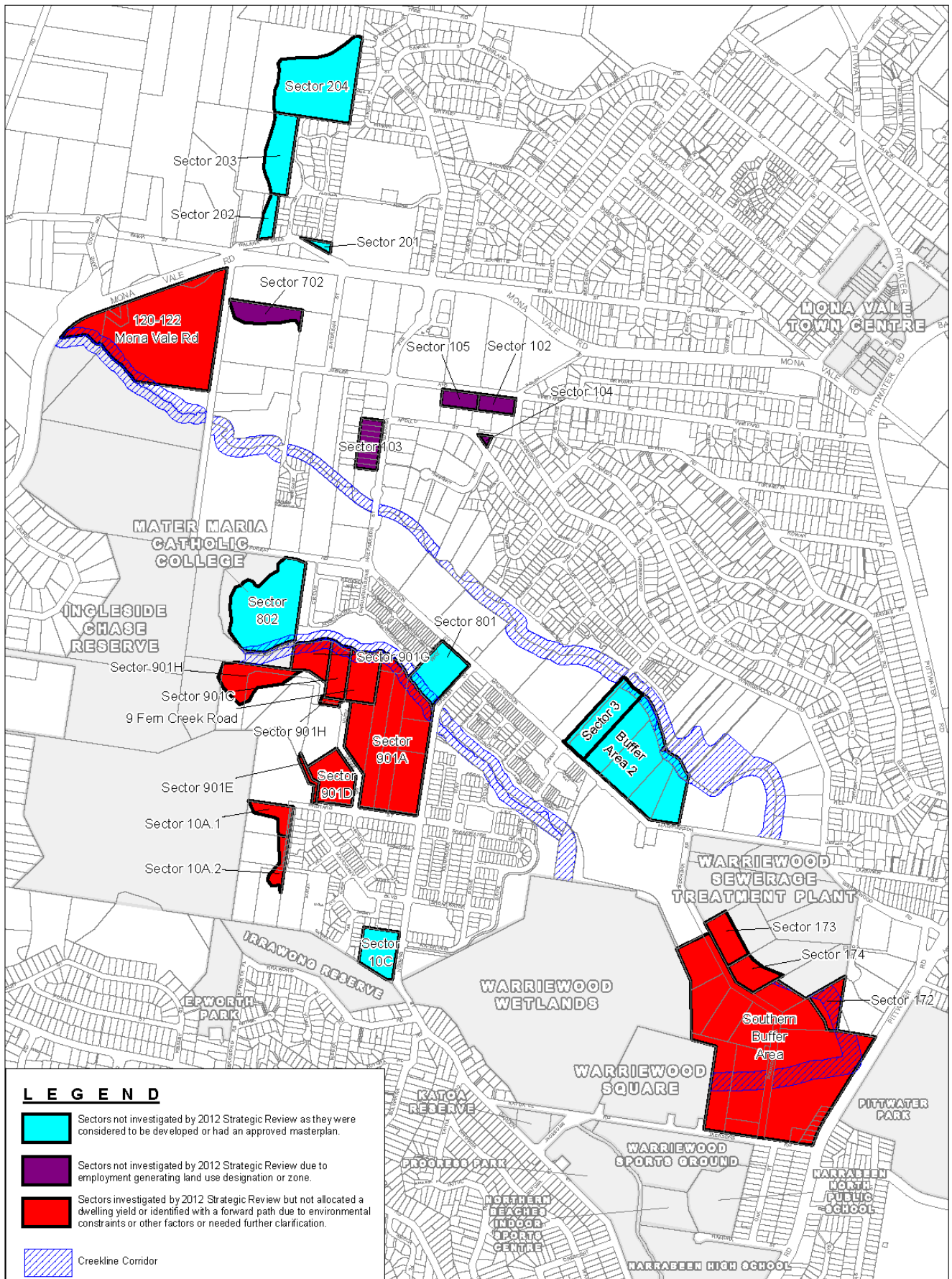
Based on the 2012 Strategic Review's Undeveloped Lands Map,¹⁹ the following criteria were used to identify the sites subject to this review:

- Sites investigated by the 2012 Strategic Review but outstanding or unresolved issues remain,
- Sites not investigated by 2012 Strategic Review due to employment generating land use designation under 2010 Planning Framework or zone,
- Sites not investigated by the 2012 Strategic Review because they were considered to be developed or had an approved masterplan applying to the site.

The sectors identified for review are depicted in **Map 1**.

¹⁹ Pittwater Council and Department of Planning & Infrastructure (2012) *Warriewood Valley Strategic Review Report 2012*, Map 2, p. 29.

Map 1: Land to be reviewed (corresponds with Sectors listed in Tables 3 & 4)



3.2 Factors considered during the opportunities and constraints analysis

The following factors were considered during the desktop review to determine the most appropriate land use and a suitable forward path:

- Known environmental affectations,
- Zoning under the PLEP 2014,²⁰
- 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 and land use planning policies.

The process for assessing known environmental affectations is discussed in more detail in Section 3.3.

3.3 Process for assessing environmental affectations

The land capability mapping exercise utilised for the 2012 Strategic Review was again used for this review to assess environmental affectations. Since the completion of the 2012 Strategic Review, Council has acquired more current flooding and bushfire data. This information has been incorporated into the bushfire and flooding map layers which were utilised for land capability mapping exercise undertaken for this review (see **Appendix 1**).

The land capability mapping process builds geographical layers to produce a visual representation of areas with lower or higher levels of development capability. Seventeen individual base map layers have been prepared for the Pittwater Local Government Area, each map representing an environmental, economic or social characteristic that influences land use decisions. The map layers also identify issues that should be addressed in the future management of the land. The following layers were used to prepare the overall Composite Capability Map.

- Bushfire (*updated based on Bushfire Prone Lands Map for Pittwater 2013 adopted by Council on 4 March 2013 and certified by the Rural Fire Service on 17 June 2013*),
- Flooding (*updated based on Narrabeen Lagoon Flood Study 2013 adopted by Council on 4 November 2013*),
- Acid sulphate soils,
- Biodiversity,
- Climate change including sea level rise,
- Coastal processes,
- Cultural (heritage value),
- Estuarine processes,
- Foreshores and water bodies,
- Geotechnical,
- Proximity to ridgelines,
- Proximity to watercourses,
- Sewer availability,
- Slope,
- Water availability.

²⁰ Pittwater Local Environmental Plan 2014 (PLEP 2014) was published and came into effect on 27 June 2014. The provisions of the published LEP were considered in finalising this report.

The constraints map layers have been divided into the following three classes:

- **Class A: Low restriction to intensification of development.**
Existing development may require generic management prescriptions to achieve sustainable land use. Intensification of development must be confined to defined targets to maintain sustainability.
- **Class B: Moderate restriction to intensification of development.**
Existing development forms require generic management prescriptions to achieve sustainable land use. Any intensification needs site specific investigation and must address constraints.
- **Class C: Significant restriction to intensification of land use.**
Existing development forms require site specific and detailed management prescription to achieve sustainable land use. Any intensification must fully address each specific constraint.

The map layers are combined into a single layer to form a Composite Capability Map, categorising the land in terms of its level of development capability. The land capability classifications are outlined in **Table 5**.

Table 5: Land capability classifications

Map Classification	Level of Capability	Categories from Composite Maps
1	Most	All A's: areas of land that were mapped as suitable for development or intensification.
2	More	All A and B: areas of land that were mapped as having at least one moderate constraint to development or intensification.
3	Moderate	Only have one instance of C: areas of land that were mapped as having one severe constraint to development or intensification.
4	Less	Two instances of C: areas of land that were mapped as having two instances of a severe constraint to development or intensification.
5	Least	Three or more instances of C: areas of land that were mapped as having three or more severe constraints to development or intensification.

For the purpose of this review, the Composite Capability Map produced did not include the proximity to centres and public transport links base map layers as these issues will not significantly affect the development capability of the land. This is consistent with the approach applied for the 2012 Strategic Review.

The outcomes of the land capability exercise are discussed in Chapter 4. The Composite Capability Map produced for this review is depicted in Chapter 4 in **Map 2**.

3.4 Community engagement process

A strategy for community engagement was devised for this review based on Council's Community Engagement Policy and Procedures. The strategy includes the following:

- Notification to all affected landowners of the recommendations of the draft Addendum Report, inviting them to meet with Council staff to discuss the recommendations for their property,
- Notification to the local community representative group which represents the interest of Warriewood Valley landowners advising them of the release of the draft Addendum Report,
- Media releases and website updates,
- Advertisement in the local newspaper advising of the exhibition of the draft Addendum Report, and
- Public exhibition of the draft Addendum Report for a minimum of 28 days.

The implementation of the strategy has ensured that all stakeholders in the community, whether affected directly or indirectly by the recommendations of the draft Addendum Report, were adequately informed and provided with opportunities to voice their concerns.

3.5 Probity Advisor

It was identified that probity issues could arise from the mixed ownership of land in the Warriewood Valley Release Area, being Crown, Council and privately owned land. A probity advisor was engaged to oversee the governance established for the completion of this review and to prevent real and perceived conflicts of interest.

The scope of works undertaken by the probity advisor includes:

- Providing probity advice and services in relation to the public exhibition of the draft Addendum Report,
- Attending meetings with landowners during the exhibition period where it is deemed there may be a potential conflict of interest, and
- Overseeing the submission review process and, where necessary, providing advice on key decisions associated with finalising the Addendum Report.

The probity advisor has audited the processes undertaken in finalising this report and prepared a Probity Report that accompanies the Addendum Report.

Results



Photo by: Amanda Clarke 2011

Chapter 4

4.0 Results

4.1 Summary of results

The desktop review identified a number of sectors constrained by environmental affectations or by their existing development or land uses. The most significant constraints included the following:

- Bushfire,
- Flooding,
- Access,
- Biodiversity,
- Site configuration and size.

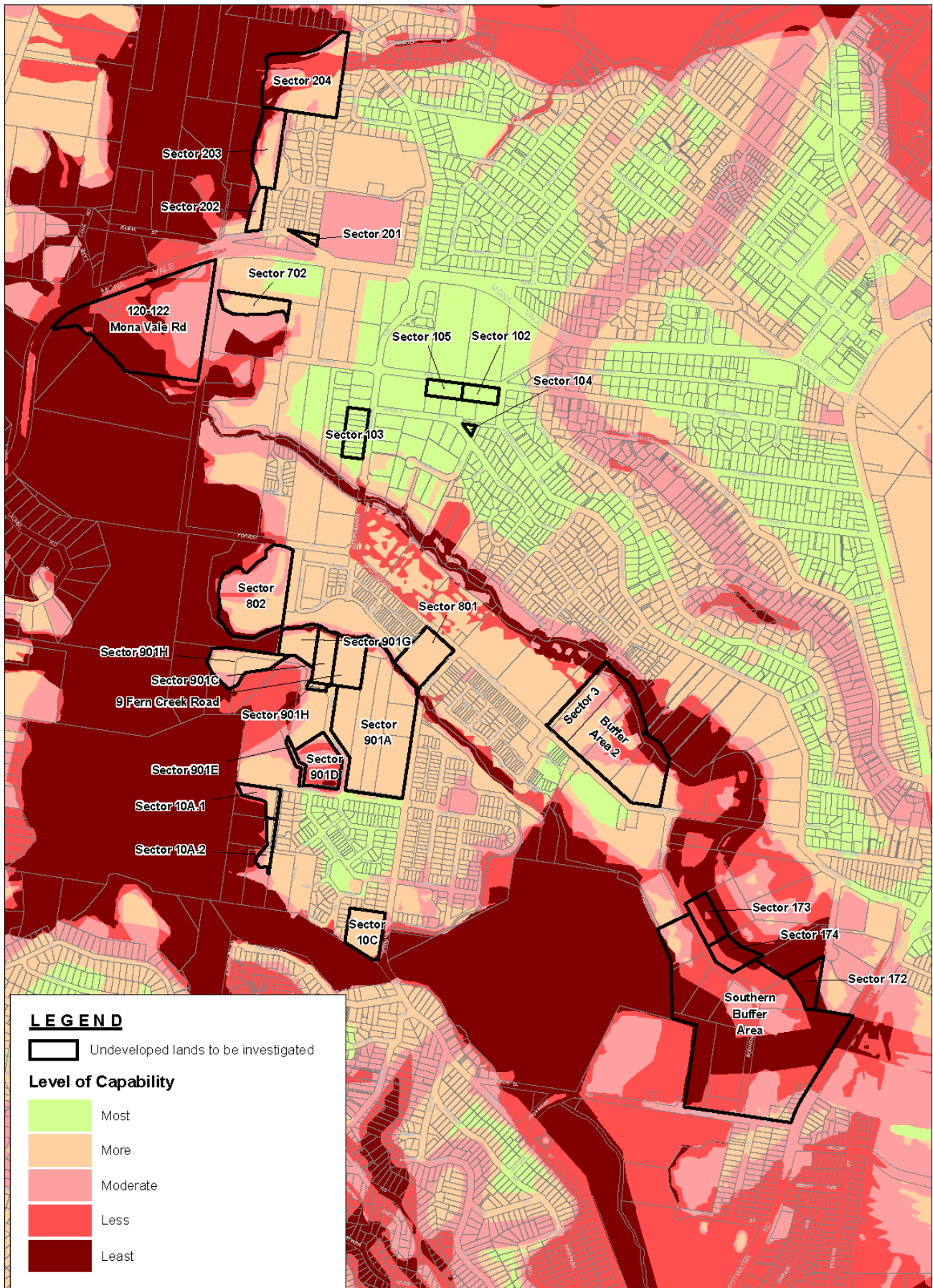
Conversely, other sectors were relatively less constrained and identified as having future development opportunities.

The land capability assessment undertaken for this review has produced a Composite Capability Map depicted in **Map 2**.

This chapter summarises the outcomes of the opportunities and constraints analysis process (as described in Section 3.2 and 3.3) undertaken for each sector.

The detailed opportunities and constraints analysis for individual sectors is contained in **Appendix 2**.

Map 2: Composite Capability Map



4.2 Undeveloped sectors with limited capacity for development

The desktop review identified undeveloped lands on the fringe of the Release Area with limited capacity for development due to bushfire, biodiversity, topography and access constraints due to their proximity to the Ingleside Chase Reserve. These undeveloped lands are:

- Sector 201 and 204,
- Sector 702,
- Sector 901H,
- Sectors 10A.1 and 10A.2.

The following sections discuss these sectors in more detail.

4.2.1 Sectors 201 and 204

Sector 201, currently designated for future residential development, is a triangular shaped allotment used by/for Mona Vale cemetery. It is zoned SP2 Infrastructure (Cemetery) under the PLEP 2014. It is unlikely to be developed in accordance with the prescribed land use designation under the 2010 Planning Framework.

Sector 204 currently contains the AVEO Peninsular Gardens Retirement Village. This is a subsidiary sector of Sector 20 and was not afforded a density under the approved masterplan for Sector 20. It was considered to be developed at the time the Sector 20 masterplan was produced. Given this and as the property is heavily vegetated, bushfire prone and flood affected, it is unlikely that Sector 204 will be redeveloped in the future.

4.2.2 Sector 702

Sector 702, currently designated for employment generating development, is a rural zoned residue of Sector 7. The development potential of Sector 702 for future employment is unlikely given the property comprises part of the Pittwater Uniting Church. For development on Sector 702 to be realised, it will require excising this portion of land from the current land parcel with provision for safe and viable access from Jubilee Avenue.

4.2.3 Sector 901H

The land capability of Sector 901H is diverse. The majority of Sector 901H, adjacent to the Ingleside Chase Reserve, is significantly constrained due to bushfire hazards and proximity to dense vegetation, and has no likely prospects for urban development.

Conversely, the battle-axe handles of Sector 901H (being the portion of the driveways of 4 & 5 Fern Creek Road within the Release Area) are less constrained. The development potential of this portion of the sector may be realised, with the size of the battle-axe handles being 1,138m². If developed, access to 4 and 5 Fern Creek Road must be ensured. Better development outcomes will be achieved if the battle-axe handles of Sector 901H are developed with either 901B or 901C. The onus will be on land owners for these sectors to work collaboratively and contemplate amalgamation with the adjoining sectors.

Since the exhibition of the Addendum Report, a development application has been lodged for Sector 901B, which did not incorporate Sector 901H. In the event that the amalgamation is not possible, any development at this location must address how access will be retained for 4 and 5 Fern Creek Road as well as incorporate other environmental and associated infrastructure requirements, such as water management, into their proposal.

4.2.4 Sectors 10A.1 and 10A.2

The development potential of Sectors 10A.1 and 10A.2 is particularly limited due to their proximity to dense vegetation and bushfire hazards. Given these constraints, in addition to the size and configuration of these sites, there is little potential for these sectors to be developed for urban purposes.

4.3 Residential sectors with development potential and/or requiring clarification

The following sectors have been identified with development potential and have either been recommended with a forward path under the Addendum Report or their forward path previously identified needs clarification. These sectors include the following:

- Sectors 202 and 203,
- Sector 10C,
- Sectors 901D and 901E, and 901C and 901G,
- Sector 801,
- 120 and 122 Mona Vale Road,
- Sector 3 and Buffer Area 2, and
- 802.

The following sections discuss these sectors in more detail.

4.3.1 Sectors 202 and 203

Sectors 202 and 203 are considered constrained, however have been largely cleared of significant vegetation and are large enough to achieve some development potential. Nonetheless, Sector 203 has some significant access issues due to its topography. Whilst Sector 202 has adequate access and the portion within the Release Area is primarily cleared, it has recently been developed for a single dwelling and there is little potential for any future redevelopment. However, it is recognised that these sectors may have opportunities for low density development subject to these constraints being adequately addressed.

4.3.2 Sector 10C

Sector 10C a residue parcel of Sector 10. It was developed as seniors living development prior to the master planning of Sector 10. Sector 10C is an underutilised site and possesses few constraints. This sector adjoins Irrawong Reserve and is at the southern entrance of Warriewood Valley. Sector 10C has potential to be redeveloped at a similar scale to neighbouring developments. During the 2012 Strategic Review process the landowners of Sector 10C expressed their desire to redevelop this property.

4.3.3 Sectors 901D and 901E, and 901C and 901G

Sector 901D is constrained by biodiversity, visual impact issues and high voltage overhead cables while Sector 901E comprises a battle-axe handle only. It was recognised during the 2012 Strategic Review that there was

potential for Sectors 901D and 901E including the Orchard Street road reserve (north-east portion) to conglomerate, enabling more appropriate setbacks to constraints while maximising development potential across these sectors (up to 16 dwellings).

Sector 901G being a land-locked parcel, is located between the Ingleside Chase Reserve and Sector 901C. Given that Sectors 901G and 901C are under the same ownership it was recommended that they develop together (with the majority of the development being placed on 901C, in recognition of the asset protection zone and creekline buffer requirements constraining development of Sector 901G).²¹

These sectors were rezoned for residential development, consistent with Council's decision of 12 June 2013.

4.3.4 Sector 801 and location of Focal Neighbourhood Centre

The 2010 Planning Framework identified 23B Macpherson Street (now known as Sector 801) as the preferred site for the Focal Neighbourhood Centre (FNC). The FNC with a gross floor area between 855m²-2,222m² is planned to be developed to meet the retail needs of the incoming population. It is intended to provide goods and services in the form of a small general store, Post Office and coffee shop for example. This is reflected in Schedule 1 of the PLEP 2014.²²

This sector is permitted to develop up to 32 dwellings per developable hectare in accordance with 2012 Strategic Review recommendations.

In July 2011 development consent was granted for the construction of an infill affordable housing development consisting of 46 residential townhouses and a Focal Neighbourhood Centre. This development is currently under construction. The Focal Neighbourhood Centre, approved as part of this development, satisfies the planned location of Focal Neighbourhood Centre.

4.3.5 120 and 122 Mona Vale Road

The properties 120 (identified as Clause 6.2 on the Urban Release Area Map under the PLEP 2014) and 122 Mona Vale Road are significantly constrained. The sites are affected by environmental constraints, being slip, bushfire, and significant vegetation, and the sites contain the upper reaches of Narrabeen Creek. Access is limited to a single driveway from Mona Vale Road and a right of carriageway from 10 Jubilee Avenue.

120 Mona Vale Road was identified in Warriewood Valley Release Area through a Council decision in 2007.

At the time of preparing the draft Addendum Report the Joint Regional Planning Panel Sydney East (JRPP) was in the process of progressing a Planning Proposal to rezone 120 and 122 Mona Vale Road.²³ These properties have now been rezoned via an amendment to the PLEP 2014 (identified as Clause 6.2 on Urban Release Area Map).²⁴

²¹ Both parcels owned by the same owner at 12 June 2013 Council decision.

²² Schedule 1, Clause 20 permits development for the purposes of restaurants and cafes and permits neighbourhood shops larger in floor area than otherwise permitted under PLEP 2014.

²³ The JRPP was nominated as the Relevant Planning Authority for the Planning Proposal lodged for 120-122 Mona Vale Road as Council did not support the initial Planning Proposal application.

²⁴ PLEP 2014, Amendment 1.

The amendment zoned the property 120 Mona Vale Road part E4 Environmental Living, R2 Low Density Residential and E2 Environment Conservation (portion containing the creek line corridor). The property 122 Mona Vale Road has been zoned entirely E2 Environment Conservation.

4.3.6 Anglican Retirement Village development within Sector 3 and Buffer Area 2

Originally several properties comprised Sector 3 and Buffer Area 2.

Formerly Sector 3 comprised:

- 20 Macpherson Street (now known as Sector 301)
- 18 Macpherson Street (now known as Sector 302)
- 16 Macpherson Street (now known as Sector 303)
- 14 Macpherson Street (now known as Sector 3)

Formerly Buffer Area 2 comprised:

- 6 to 12 Macpherson Street (now known as Buffer Area 2)
- 4 Macpherson Street (now known as Buffer Area 2a)

Prior to the 2012 Strategic Review, the pre-planning for these properties had envisaged a 'whole of sector' density of 25 dwellings per developable hectare.

In April 2006 development consent was granted to construct the Anglican Retirement Village (ARV) seniors living development across 6 to 14 Macpherson Street. This development, straddling across part of the former Sector 3 and part of former Buffer Area 2, was approved under the former *State Environmental Planning Policy No.5 Seniors Living* and was slightly above the anticipated density.

As the ARV development was partially completed when the 2012 Strategic Review commenced, the properties now named Sector 3 (14 Macpherson Street) and Buffer Area 2 (6-12 Macpherson Street) were not reviewed.

The remaining undeveloped sectors being Sectors 301, 302, 303 and Buffer Area 2A were reviewed under the 2012 Strategic Review. The density of up to 32 dwellings per developable hectare was recommended for Sectors 301, 302 and 303 enabling each sector to develop to that density. The density recommended for Buffer Area 2A was 22 dwellings per developable hectare.

PLEP 2014 allocated dwelling yields for Sector 3 and Buffer Area 2, representing a density of up to 25 dwellings per developable hectare in accordance with the 2010 Planning Framework; while the yield allocated to Sectors 301, 302, 303 and Buffer Area 2a was in accordance with the 2012 Strategic Review recommendations.

Given that the overall ARV development is nearing completion, Sector 3 and Buffer Area 2 are unlikely to be redeveloped in the short to medium term.

4.3.7 Existing development on Sector 802

Mater Maria Catholic College is located on Sector 802. The sector is a residue of the master planned sector known as Sector 8. The current land use designation for Sector 802 is part 'Medium Density Residential', part 'Conservation/Open Space'. Given the existing development precludes any future residential development; the land use designation should be changed to reflect the existing use.

4.4 Southern Buffer and Sectors 172, 173 and 174

The 2012 Strategic Review investigated development opportunities for the Southern Buffer (including Sectors 172, 173 and 174) however due to the significant environmental constraints and divergent landowner expectations, no future land use was recommended for this area. The 2012 Strategic Review invited landowners, either individually or collectively, to pursue development opportunities for their lands through the lodgement of a Planning Proposal addressing, as a minimum, the constraints identified during the 2012 Strategic Review.

The 2012 Strategic Review identified flooding as a major constraint to any future development. The majority of the properties within the Southern Buffer are low lying and are inundated during flood events. Flood depths reach approximately 1-2 metres above natural ground level across most of the Southern Buffer and flood events are typically long in duration and influenced by backwater flooding from the Warriewood Wetlands and Narrabeen Lagoon. These findings were reiterated in the *Narrabeen Lagoon Flood Study 2013*.

4.4.1 Warriewood Valley Strategic Review Hydrology Study 2011

The *Warriewood Valley Strategic Review Hydrology Study 2011* (2011 Hydrology Study) undertaken for the 2012 Strategic Review classified land into developable land categories (based on criteria set out in the 2011 Hydrology Study) and recommended land uses for each category. The recommended land uses for each category are as follows:

- Category A: "No aged care facilities, retirement villages, educational establishments, child care centres and other essential services,"
- Category B: "Most land uses are permitted... assuming that they comply with relevant policies on floor levels and other constraints."
- Category D: "Most land uses are permitted... assuming that they comply with relevant policies on floor levels and other constraints."
- Category F: "Sporting fields and recreational areas are the only land use recommended."
- Category G: "Commercial and industrial land uses recommended."
- *Note: No areas within the Release Area are classified Category C or E.*

In relation to the Southern Buffer, the Study classified:

- Northern section as part Category B and part Category D.
- Southern section (at junction of Jacksons Road and Pittwater Road) as Category G.
- Remaining lands (being 2, 4 and 6 Jacksons Road; 1, 2, 2A, 3, 4A, 6, 8 and 10 Boondah Road; and Sectors 172, 173 and 174) as Category F.

This Study, in considering potential development opportunities, recommended the creation of two developable islands at the highest points within the sector. This was to be achieved through significant excavation and filling in parts of the sector. Under this scenario, the central areas of the Southern Buffer were

determined suitable for open space only due to flood depths and flow path requirements.²⁵

Sector 172, being 7,792m² in area, containing significant vegetation and a section of Narrabeen Creek, is classified Category F and is the only remaining portion of Sector 17 not owned by Sydney Water or within the Warriewood Sewerage Treatment Plant.

Sectors 173 and 174, contain vegetation and are classified Category F. Sydney Water, as the owners of Sectors 173 and 174, has confirmed during the 2012 Strategic Review, that these sectors are required for works associated with the Sewerage Treatment Plant.

4.4.2 Recent review following adoption of the *Narrabeen Lagoon Flood Study 2013*

Due to revised flood modelling under the *Narrabeen Lagoon Flood Study 2013*, Cardno was commissioned to review the flood behaviour in the Southern Buffer area and have regard to the recommendations made for these lands under the 2011 Hydrology Study. The review identified that the floor levels required for development would increase from the 2011 Hydrology Study. In addition the evacuation potential would not be improved. The review also confirmed that the majority of the Southern Buffer land continues to be classified as Category F consistent with the recommendations of the 2011 Hydrology Study. It reaffirmed the land uses recommended for Category F classification is sporting fields and recreational areas only.

4.4.3 Review of existing Council policies and studies

Council, in considering the recommendations of the 2012 Strategic Review, was advised there were additional infrastructure requirements commensurate with the additional demand as a result of the increased development. At that time, it was identified that up to 5 hectares of additional recreational area was required to be purchased.²⁶

As outlined in Section 2.2.3, the *Pittwater Public Space and Recreation Strategy 2014* recognises the importance for the Release Areas (Warriewood Valley and Ingleside) to provide recreation areas and facilities to meet the needs of their incoming populations to ensure that the demands of any additional population do further exacerbate the existing shortage of recreation areas in the balance of the Pittwater LGA.

As outlined in Section 2.4, a review of local infrastructure commensurate with the increased dwellings forecast under the 2012 Strategic Review has been undertaken. The *Draft Warriewood Valley Section 94 Contributions Plan* identified the quantum of recreational area required for the total development anticipated in the Release Area. The *Draft Warriewood Valley Section 94 Contributions Plan*, taking into account what available land is remaining in and adjacent to Warriewood Valley, has identified land in the Southern Buffer as suitable for use as a recreation area. The aggregated site area of the identified lands in the Southern Buffer is close to the quantum required to be provided.

²⁵ Cardno (NSW/ACT) Pty Ltd (2011) *Warriewood Valley Strategic Review Hydrology Study*, prepared for Department of Planning & Infrastructure and Pittwater Council.

²⁶ Council Report to Item C5.1 entitled Warriewood Valley Strategic Review Report – Outcomes of public exhibition and final report, extraordinary Council meeting 12 June 2013, p. 26.

4.4.4 Planning Proposal lodged for privately owned lands in the Southern Buffer

A Planning Proposal has been lodged for the privately owned lands in the Southern Buffer, namely 6 Jacksons Road and 3, 6, 8, 10 and 12 Boondah Road, Warriewood. The proposal envisaged a large mixed use development within the sector comprising retail, commercial and residential uses.²⁷ Don Fox Planning were commissioned by Council to undertake an assessment of the Planning Proposal.

The application was not supported for the following reasons:

- It did not meet the strategic objectives of the Draft North East Subregional Plan, SHOROC Employment Lands Study, Pittwater Local Planning Strategy and Warriewood Valley Strategic Review Report through the expansion of Warriewood Square shopping centre to provide a new town centre;
- It would result in unacceptable adverse outcomes for public open space and recreation areas within the Southern Buffer;
- It was inconsistent with Section 117 Direction 4.3 Flood Prone Land;
- The approach to managing flooding constraints to justify the urban zone on flood prone land was not supported;
- It failed to retain and protect high value biodiversity land (including Endangered Ecological Communities (EEC's)) and provided insufficient justification for their removal or consideration of ecological recommendations;
- It was unable to achieve connectivity between the Site and adjoining commercial areas (including relocated Boondah Road and Vuko Place connection) on the basis of unacceptable ecological and traffic impacts;
- It did not address potential negative economic impacts upon surrounding retail centres, or address the potential oversupply of commercial floor space;
- The urban design outcomes of the Masterplan were not supported; and
- It did not adequately represent the interests of all affected land owners.²⁸

Additionally, Don Fox Planning recommended that any future planning proposal should incorporate all land within the Southern Buffer and also the Warriewood Square Shopping Centre site.

A Pre-Gateway Review request is currently being considered by the Department of Planning and Environment. To date, no decision has been made to this request.

4.5 Other employment generating sectors

All remaining employment generating lands, except for Sector 702 and the Southern Buffer including Sectors 172, 173 and 174, are already zoned to permit employment generating land uses. While they have few environmental affectations, they are constrained due to their size and configuration.

²⁷ Planning Proposal application prepared by SJB Planning (NSW) Pty Ltd (March 2014). Council's reference number for this application is PP0007/13.

²⁸ Reasons for refusal as appeared in the Council determination issued 18 March 2014, in accordance with Council resolution of 17 March 2014.

Sectors 102 and 105, while relatively small, are able to be developed on their own. Nonetheless, a better development outcome could be achieved if these sectors amalgamate.

Sector 103 is comprised of multiple small land parcels with an average site area of 910m², each with a different landowner. Given the size of individual land parcels, redevelopment of this sector can only be achieved through lot consolidation.

Sector 104, due to its size and configuration, is difficult to develop. There is however, a range of development uses permissible within the IN2 Light Industrial zone that may be able to be achieved within this relatively small site.

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Recommendations



Photo by: Amanda Clarke 2011

Chapter 5

5.0 Recommendations

5.1 Introduction

The Addendum Report has reviewed the development potential of sectors that were excluded from the 2012 Strategic Review. The opportunities and constraints analysis has identified a number of sectors constrained by environmental factors or by their existing development or current use, as well as other relatively less constrained sectors with future development opportunities.

Due to significant environmental and developmental constraints affecting particular sectors, a number of sites are recommended to be removed from the Release Area or for more suitable land uses. This review has also identified other relatively less constrained sectors with opportunities for development.

Based on this analysis, the Addendum Report recommends a number of amendments to the Release Area boundary and the land uses designated for particular sectors under the 2010 Planning Framework. The review has also recommended the rezoning of two sectors and amendments to specific sector yields.

The Addendum Report also recommends amendments to the Warriewood Valley Release Area Map, Residential Density Map and Land Use Designation Map (see **Maps 3, 4 and 5** respectively).

5.2 Recommendations for residential sectors

5.2.1 Developed sectors (Sectors 802, 10C, Sector 3 and Buffer Area 2)

Sector 802 is constrained by the existing development on the site that is likely to preclude any future residential development. The land use designation of Sector 802 should be 'Infrastructure' rather than 'Residential - Medium Density' in recognition of the Mater Maria Catholic College on this site. It is recommended to rezone the entire site to an infrastructure zone, consistent with the zoning of other schools in the Pittwater LGA. The sector boundary is not proposed to be amended.

Sector 10C, consistent with landowner aspirations expressed during the exhibition of the 2012 Strategic Review, has potential to be developed for low density residential purposes, in keeping with the pattern and scale of the surrounding development. It is recommended that the sector be allocated a dwelling yield consistent with the adjoining Sector 10. This will ensure a consistent streetscape character is maintained along this section of Garden Street.

The Anglican Retirement Village (ARV) development, partially completed, straddles Sector 3 and Buffer Area 2. Given the approved development, it is appropriate to amalgamate these sectors (resulting in a revision of the sector boundary) and relabel it 'Buffer Area 2'. It is recommended that the new Buffer Area 2 have a land use designation of 'Residential - Medium Density', retaining the density of 25 dwellings per developable hectare allocated under the 2010 Planning Framework.

Detailed recommendations for the above listed sectors are in **Appendix 3**.

5.2.2 Undeveloped sectors to be removed from the Release Area (Sectors 201, 204, 10A.1 and 10A.2, and Part of 901H)

The majority of remaining undeveloped residential sectors are located on the fringe of the Release Area at the base of Ingleside Chase Reserve and therefore are limited in their ability to develop due to bushfire, geotechnical hazards and access issues. Several sectors are also unlikely to be redeveloped due to the existing development on the site or their current use.

Given the above, a number of sectors are recommended to be removed from the Release Area as they are unlikely to be developed for urban purposes in the future. These sectors include Sectors 201, 204, 10A.1, 10A.2 and the western portion of 901H.

Detailed recommendations for the above listed sectors are in **Appendix 3**.

5.2.3 Undeveloped sectors recommended for development (Sectors 202, 203, Revised 901H)

This review also identified a small number of other sectors, which, while constrained, are able to achieve low density development. These sectors are 202 and 203. It is recommended that a yield of 1 dwelling be allocated to Sector 202 and a yield of 4 dwellings be allocated to Sector 203.

This review has identified revised Sector 901H (comprising only the battle-axe portion) as having capacity to be developed in the future.

As discussed in section 4.2.4, the original Sector 901H consisting a bulb-shaped area immediately adjoining Ingleside Chase Reserve is significantly constrained and has limited prospects for urban development.

Redefining the sector to only comprise the battle-axe portion to facilitate development opportunity is reasonable so long as access to 4 and 5 Fern Creek Road is retained. Additionally, the size and shape of the battle-axe necessitates the revised Sector 901H being integrated with the adjoining sectors (901B or 901C) to facilitate better development outcomes. Any density allocated to the now revised Sector 901H needs to be consistent with adjoining sectors to provide incentive for amalgamation with Sector 901B and/or 901C to be realised.

In the event that amalgamation cannot be achieved, it will be difficult for this revised sector to develop on its own given its size, the associated infrastructure requirements as well as ensuring unimpeded access is available for 4 and 5 Fern Creek Road.

It is recommended that the sector boundary is revised to only contain the battle-axe portion of 4 and 5 Fern Creek Road (to be known as Sector 901H) and for the revised sector to be rezoned to allow residential development of up to 3 dwellings (representing a density of 32 dwellings per developable hectare identical to the adjoining sectors). It is also recommended that the revised Sector 901H be allocated a land use designation of 'Residential - Medium Density'. Nonetheless, the onus will be on landowners to negotiate opportunities for amalgamation to realise development potential on revised Sector 901H.

Detailed recommendations for the above listed sectors are in **Appendix 3**.

5.2.4 Sectors 901D and 901E, 901C and 901G

Concurrent to the adoption of the 2012 Strategic Review, Council agreed to rezone the following sectors:

- Sectors 901D and 901E (to be developed together and agreed to by landowners of these sectors), and
- 901G to be developed with 901C (under the same ownership),

and allocated a yield consistent with Council direction on 12 June 2013. The Addendum Report does not recommend any change to their existing zoning or yield however, reiterates the land use designation, reflecting Council's 2013 decision for these sectors.

The anticipated development of Sectors 901C and 901G has not been reflected in the PLEP 2014, appearing as separate sectors, contrary to Council's decision.²⁹ Accordingly it is recommended that Sectors 901C and 901G be identified in the PLEP 2014 together, with one yield, consistent with Council's 2013 decision.

5.2.5 120 and 122 Mona Vale Road

120 and 122 Mona Vale Road have already been rezoned via a Planning Proposal. Based on the approved zoning, 120 Mona Vale Road is recommended to have a 'Residential - Low Density' designation and 122 Mona Vale Road is recommended to have a 'Conservation' land use designation. There is no yield specified for this sector as it reverts to a minimum lot size map.

Detailed recommendations for the above listed sectors are in **Appendix 3**.

5.2.6 Sector 801

Sector 801, known as 23B Macpherson Street, was identified as the preferred site for the Focal Neighbourhood Centre in the 2010 Planning Framework. Development consent has been granted to develop this sector to include a Focal Neighbourhood Centre. Schedule 1 of the PLEP 2014 lists development for the purpose of restaurants, cafes and neighbourhood shops as additional permissible landuses for this sector reflecting the aspirations in the 2010 Planning Framework for this site. Under this circumstance, it is recommended that for Sector 801:

- the land use designation for this sector be altered to 'Residential-Medium Density and Focal Neighbourhood Centre', and
- Control C6.15 of Pittwater 21 DCP be amended to specifically identify 23B Macpherson Street (Sector 801) as the location for the Focal Neighbourhood Centre.

Detailed recommendations for the above listed sectors are in **Appendix 3**.

²⁹ Council's resolution of 12 June 2013.

5.2.6 Clarification of dwelling yield allocation within Sector 901A

The 2012 Strategic Review recommended Sector 901A have a density up to 32 dwellings per developable hectare and expressly allowed individual properties to develop to that density.

This sector has now been rezoned in accordance with those recommendations and allocated a total yield of 192 dwellings. This number represents the total sum of dwellings calculated on a pro-rata basis for the individual properties within the sector. The calculation below expresses how this number was determined.

$$\text{(Developable area of land parcel x 32)/10,000} = \text{Yield for individual land parcel per 10,000m}^2$$

To provide certainty should individual parcels develop on their own, the pro-rata dwelling yield allocation of the individual land parcels within Sector 901A is identified in Table 6.

In the development of these sites, it must be demonstrated that they are capable of developing on their own as well as demonstrating how the development (within individual parcels) will connect to adjoining future developments on adjoining properties. It will also need to be demonstrated how these development sites can be developed in an orderly manner in accordance with clause 5(a)(ii) of the EP&A Act 1979.

Table 6: Pro-rata dwelling yield for individual parcels in Sector 901A

Address	Developable Area ⁺ (m ²)	Density range	Minimum Yield	Maximum Yield	Comments
9 Fern Creek Road	9,297	25 to 32	0	0	This parcel was bought by Council for recreation purposes. Under the 2012 Strategic Review it was zoned R3 with no dwelling yield allocated against the parcel.
13 Fern Creek Road	606	25 to 32	2	2	-
6 Orchard Street	15,170	25 to 32	39	48	6 and 6A Orchard Street are to be developed together.
6A Orchard Street	284				
4 Orchard Street	10,496	25 to 32	27	33	4 and 4A Orchard Street are to be developed together.
4A Orchard Street	289				
206 Garden Street	3,149	25 to 32	8	10	-
204 Garden Street	7,082	25 to 32	18	23	-
2 Orchard Street	13,320	25 to 32	35	43	2 and 2A Orchard Street are to be developed together.
2A Orchard Street	573				
10 Fern Creek Road	10,240	25 to 32	27	33	-
TOTAL	60,063		156	192	

⁺ Individual site area excluding creek line corridor

5.2.7 Facilitating quality medium density housing

The 2012 Strategic Review allows individual properties within sectors to develop on their own. At a density of 32 dwellings per developable hectare, the typical housing form is townhouses, terrace housing and low-rise residential flat buildings. Recent experience demonstrates a trend in land subdivision proposals for detached dwellings on lots less than 300m². At this lot size, even modest dwellings result in numerical non-compliance with the current Pittwater 21 DCP controls. In recognition of this issue, it is recommended that a comprehensive review of the Pittwater 21 DCP occur to provide updated controls that cater for dwellings on smaller lot sizes.

Until this review is complete it is recommended that integrated housing developments be pursued. Integrated housing, as a form of development incorporates land subdivision and dwellings on individual lots in the same application. It facilitates detailed assessment of the subdivision of the land, provision of infrastructure and the design of dwellings on the smaller lots resulting in a more comprehensive consideration of the associated planning and built form outcomes.

5.3 Recommendations for the Southern Buffer and Sectors 172, 173 and 174

In light of contemporary information available since the completion of the 2012 Strategic Review, the Addendum Report has reviewed the opportunities and constraints in order to determine the most appropriate forward path for the Sectors 172, 173 and 174 and the broader Southern Buffer.

5.3.1 Recommended sector boundary re-alignment

Sector 172, formerly part of Sector 17, is the remaining portion of Sector 17 that is not owned by Sydney Water or within the Warriewood Sewerage Treatment Plant. This sector comprises a section of Narrabeen Creek and significant vegetation, and provides connectivity with the creekline corridor network to the Southern Buffer Sector. Rather than creating a single sector, its utility may be best served by being incorporated into the Southern Buffer Sector.

During the 2012 Strategic Review process Sydney Water confirmed, as the owner of Sectors 173 and 174 that these sectors are required for works associated with the Sewerage Treatment Plant. Given these circumstances, Sectors 173 and 174 are recommended to be removed from the Release Area. Concurrence for removal of Sectors 173 and 174 has now been received from Sydney Water.

5.3.2 Recommended land use designation

A review of the lands within the Southern Buffer based on the *Narrabeen Lagoon Flood Study 2013*, identified that the floor levels required for development would increase. The Category F classification for the majority of land in the Southern Buffer remains. Under this category the land uses recommended are restricted to sporting fields and recreational areas.

The property 1 Boondah Road currently contains Council's Operations Centre and is not likely to be relocated in the near future. It is zoned SP2 Infrastructure (Public Administration Building) and it is recommended that this property be designated 'Infrastructure' and still remain in the Southern Buffer Sector.

Sector 172 contains significant vegetation, a portion of the Narrabeen Creek and is bushfire prone land. Its environmental constraints are noted however, this sector provides connectivity with the creekline corridor network in the Release Area. As such, it is recommended that the sector be given a 'Recreation' land use designation and be incorporated into the Southern Buffer sector. The property is already zoned RE1 Public Recreation under the PLEP 2014.

The properties 3, 6, 8, 10 and 12 Boondah Road are recommended to have a 'Recreation' land use designation for the following reasons:

- The planning of the Release Area was premised on infrastructure and services being provided for the incoming residents, delivered as development occurs in the Release Area and that the broader Pittwater community will not fund the additional infrastructure and services required by the Release Area development.
- Council in considering the 2012 Strategic Review report identified that, as a result of increased development, additional active open space lands of approximately 4.6 hectares are still to be purchased for recreational uses. In adopting the 2012 Strategic Review, Council agreed to review among other documents, the *Warriewood Valley Section 94 Contributions Plan* to respond to the new development outcomes envisaged by that report.
- Council's recently completed review of the *Pittwater Public Space and Recreation Strategy* reaffirmed the philosophy articulated in the planning of the Release Area. It documented that release areas (Warriewood Valley and Ingleside) identify and purchase recreation areas to meet the demands of incoming populations. The Strategy recommends that:

"The ratio of 2.83 hectares per 1000 population has been applied to determine the provision of open space in the Warriewood Valley land release area. With an estimated incoming population of 6,777 people this equates to 19.1 hectares. Purchases to date include:

- 6.1 hectares of active open space;*
- 3.99 hectares of passive open space; and*
- 3.12 hectares of linear open space (30% of creek line corridors).*

It is intended that the remaining balance of 6.32 hectares comprises of 1.69 hectares of linear open space and 4.63 hectares of active open space. The 2.83 hectares per 1000 population is an industry standard and it is reasonable that Council determine the best possible mix of landscape settings to ensure the open space network meets the needs of the incoming population. The active open space component, by definition of its use, will consist of larger areas of flat land suitable for active recreation.³⁰

³⁰ *Pittwater Public Space and Recreation Strategy 2014*, adopted August 2014, p. 79

- The assessment of the Planning Proposal for the privately owned land within the sector, in recognition of the sector's severe flood affectation, topography, proximity to existing recreational land as well as the current shortage of open space in Warriewood Valley, did not support a mixed use development on these lands. The assessment in so far as it related to suitability of this land for another purpose, concluded:

- *"The flood prone land within the Southern Buffer may be suitable for public open space and recreation purposes as it is subject to inundation, it adjoins existing public reserves (thus allowing sharing of infrastructure) and has access to valuable bore water irrigation. The topography of alternative areas within Pittwater LGA presents cost, infrastructure and maintenance issues.*

*Availability of public open space and recreation land areas across Pittwater LGA is limited by a number of factors. The Planning Proposal would result in the removal of strategically significant land from a precinct which presently suffers from an under supply of public open space and recreation land particularly for sports fields and will be subject to a future increase in demand for these areas.*³¹

- Based on total development, approximately 4.6 hectares is required for sports fields (land quantum comprises playing surface, run out areas, curtilage for associated infrastructure and buffer zone to adjoining development.)
- The properties 3, 6, 8, 10 and 12 Boondah Road adjoin each other and have an aggregated site area of approximately 4.71 hectares.

6 Jacksons Road contains remnant Coastal Saltmarsh, being an Endangered Ecological Community, and a section of Narrabeen Creek. It is also bushfire prone land and is highly constrained by flooding and biodiversity (foreshore vegetation). Due to these constraints this property is recommended to have a land use designation of 'No development potential'.

The recommendations for the Southern Buffer and Sectors 172, 173 and 174 are detailed in **Appendix 4**.

5.4 Recommendations for other employment generating/industrial sectors

The major constraint to development of the remaining undeveloped employment generating sectors is lot size limitations and fragmented ownership. With all sectors already appropriately zoned and relatively unconstrained from environmental hazards, it is recommended that Sectors 102, 103, 104 and 105 retain their 'Employment Generating' land use designation. In order to facilitate timely development of these sectors, the land owners of Sectors 102, 105 and particularly 103 are encouraged to explore opportunities for amalgamation with adjoining land owners.

Conversely, Sector 702 is distinct from the other undeveloped employment generating sectors in terms of its environmental constraints. Sector 702 is a residual parcel of Sector 7, not rezoned as part of Sector 7 and is on separately owned land to that land comprising the major development for the sector. Given its size and shape, location, proximity to the escarpment and the property that contains Sector 702 is used for church purposes by the Uniting Church (the landowner); it is unlikely to be redeveloped

³¹ Don Fox Planning Assessment of Planning Proposal PP007/13, March 2014, p. 68.

for employment generating purposes. Removing this sector from the Release Area is recommended.

Detailed recommendations for each employment generating sector are in **Appendix 4**.

5.5 Additional dwellings and infrastructure requirements

The net increase in dwellings, as a result of the Addendum Report is an additional 17 dwellings above the 2012 Strategic Review's total. A summary of the additional dwellings recommended is outlined in **Appendix 3**.

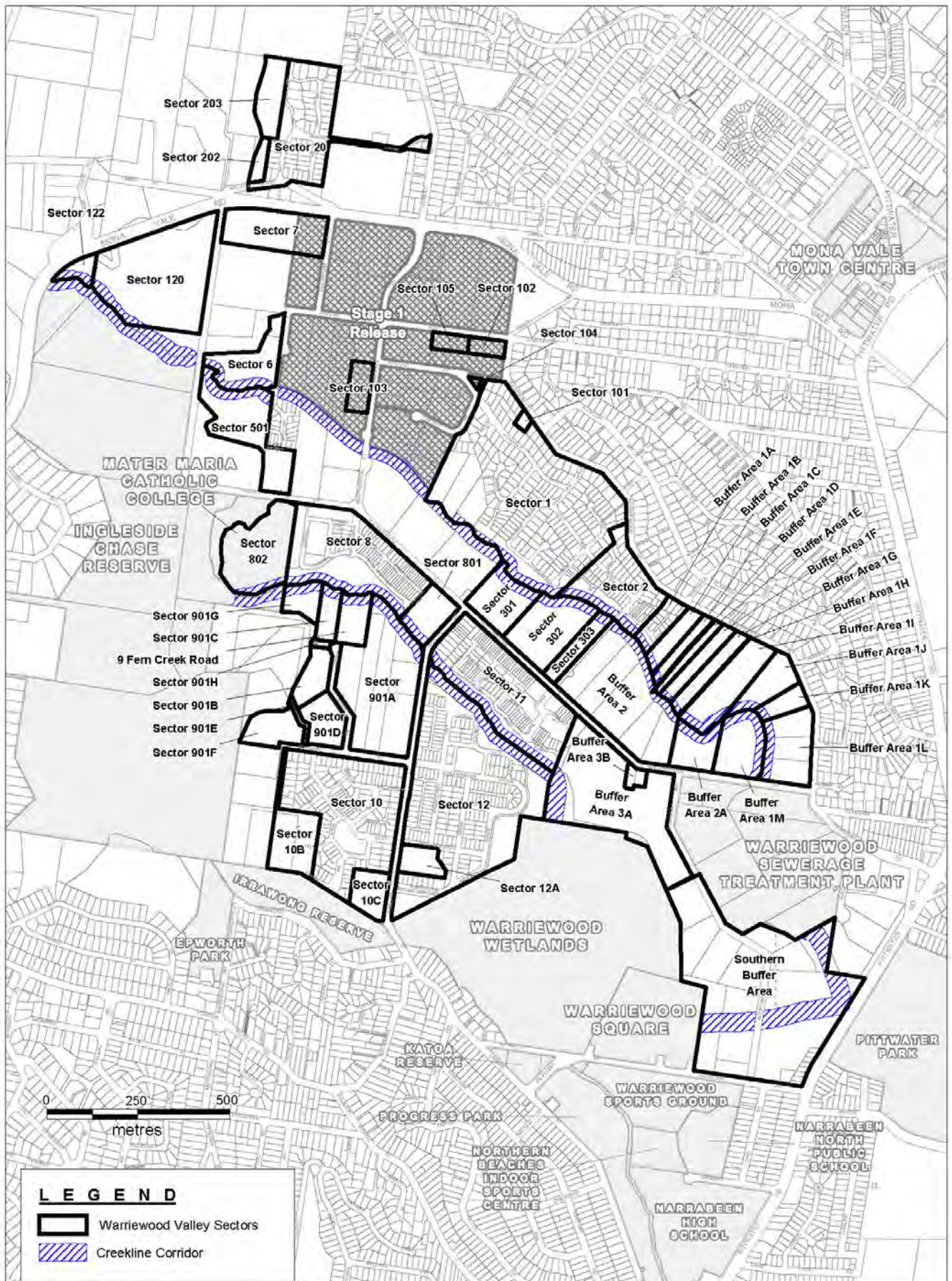
Preliminary analysis indicates that this minor increase in dwelling yield can be accommodated within the Section 94 Plan. The Plan will need to be revised to account for the increased dwelling yield of 17 dwellings and resultant additional infrastructure and service requirements.

5.6 Realignment of creek line corridor

Integral to the development of Warriewood Valley is the definition of creek line corridor land in the Release Area. This is identified as land 25 metres either side of the centre line of the creek. The creekline within the Buffer Area 1 sub-sectors (Buffer Areas 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K and 1L) has been revised, consistent with the other portions of the creekline land in the Release Area already purchased or to be purchased under the Section 94 Plan.

It is recommended that the defined creekline corridor, as it applies to the sectors, be translated into the Urban Release Area map in PLEP 2014. This can only be achieved through a Planning Proposal.

Map 3: Warriewood Valley Release Area Map



LEGEND

[White box]	N/A
[Red hatched box]	No Development Potential
[Blue hatched box]	No Yield Allocated
[Grey box]	Yet to be determined

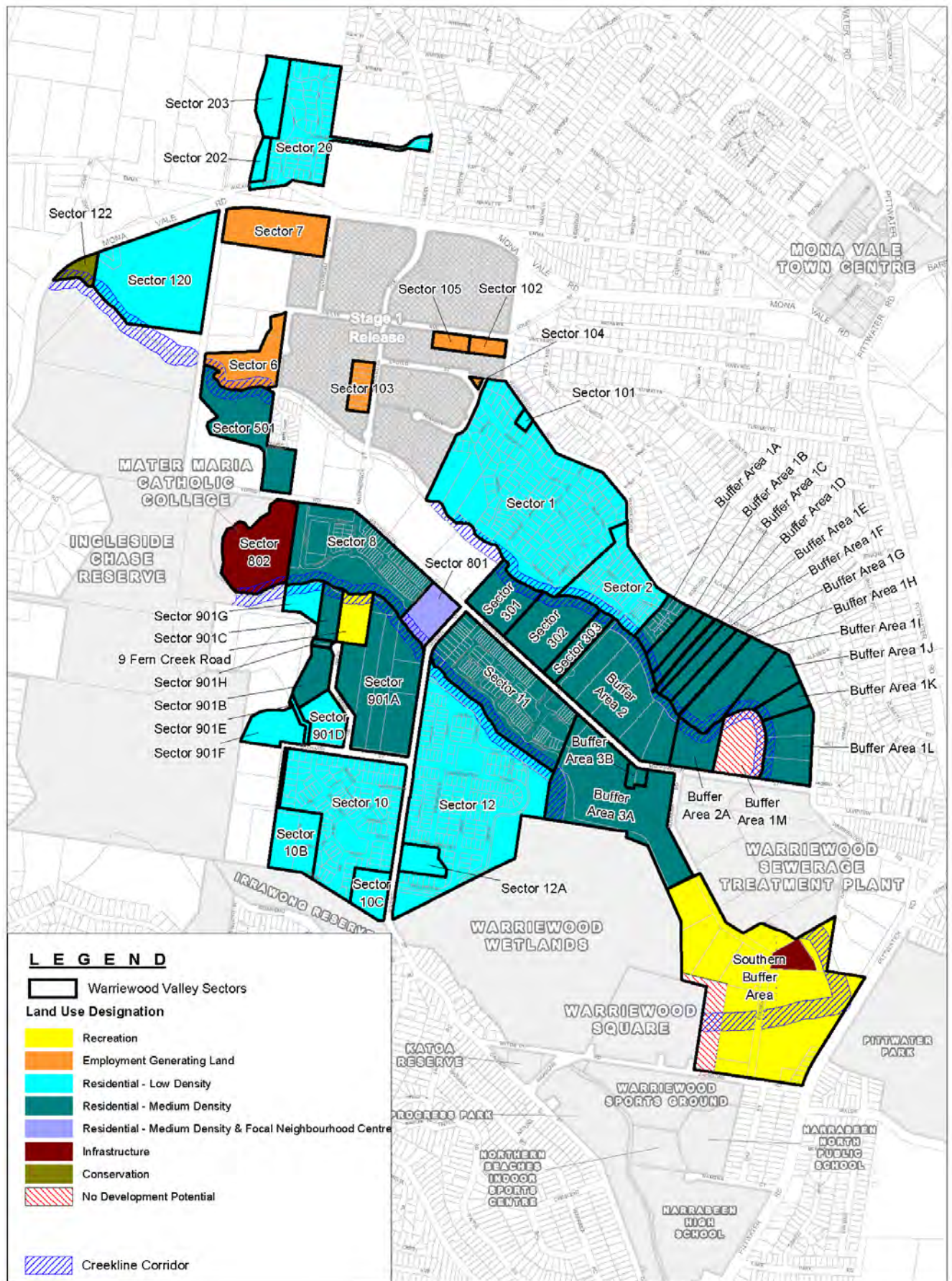
Density (dwellings per developable hectare)

[Yellow box]	10 / Ha & below	[Orange box]	22 / Ha
[Purple box]	15 / Ha	[Cyan box]	25 / Ha
[Light blue box]	20 / Ha	[Dark blue box]	26 / Ha
[Green box]	21 / Ha	[Dark green box]	32 / Ha

Map Labels:

- Sector 203, Sector 202, Sector 20, Sector 122, Sector 120, Sector 7, Sector 105, Sector 102, Sector 104, Sector 101, Sector 103, Sector 6, Sector 501, Sector 802, Sector 801, Sector 3, Sector 1, Sector 2, Sector 901G, Sector 901C, Sector 901H, Sector 901B, Sector 901E, Sector 901F, Sector 901A, Sector 901D, Sector 11, Sector 10, Sector 12, Sector 10B, Sector 10C, Sector 12A, Sector 120, Sector 103, Sector 105, Sector 102, Sector 104, Sector 101, Sector 103, Sector 6, Sector 501, Sector 802, Sector 801, Sector 3, Sector 1, Sector 2, Sector 901G, Sector 901C, Sector 901H, Sector 901B, Sector 901E, Sector 901F, Sector 901A, Sector 901D, Sector 11, Sector 10, Sector 12, Sector 10B, Sector 10C, Sector 12A
- Stage 1 Release
- MONA VALE TOWN CENTRE
- MATER MARIA CATHOLIC COLLEGE
- INGLESIDE CHASE RESERVE
- IRRAWONG RESERVE
- EPWORTH PARK
- KATGA RESERVE
- PROGRESS PARK
- NORTHERN BEACHES INDOOR SPORTS CENTRE
- WARRIWOOD WETLANDS
- WARRIWOOD SQUARE
- WARRIWOOD SPORTS GROUND
- MARRABEEN HIGH SCHOOL
- NARRABEEN NORTH PUBLIC SCHOOL
- WARRIWOOD SEWERAGE TREATMENT PLANT
- Southern Buffer Area
- Buffer Area 1A, Buffer Area 1B, Buffer Area 1C, Buffer Area 1D, Buffer Area 1E, Buffer Area 1F, Buffer Area 1G, Buffer Area 1H, Buffer Area 1I, Buffer Area 1J, Buffer Area 1K, Buffer Area 1L, Buffer Area 1M, Buffer Area 2A, Buffer Area 2B, Buffer Area 3A, Buffer Area 3B

Map 5: Land Use Designation Map



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Conclusion



Photo by: Amanda Clarke 2011

6.0 Conclusion

The Addendum Report has provided an opportunity to re-examine the opportunities and constraints affecting the remaining undeveloped land in the Warriewood Valley Release Area, including the Southern Buffer, based on the most current information available.

The recommended forward path for each sector has considered the applicable environmental affectations and the patterns of existing development and will result in appropriate levels of development within the Release Area. The recommendations of the Addendum Report will result in a net increase of 17 dwellings in the Release Area. This relatively minor additional development yield is able to be accommodated within the Release Area.

The Release Area will be reduced from approximately 199 hectares to approximately 195 hectares.

The Addendum Report, based on contemporary information and supported by an opportunities and constraints analysis, is consistent with the community's expectation for the Release Area and will ensure continuity across Council's strategic and land use planning documents.

The Addendum Report will supplement the 2012 Strategic Review, so as to achieve a single comprehensive document applying to all undeveloped land in Warriewood Valley. The Addendum Report, together with the 2012 Strategic Review, will become the strategic planning framework for all undeveloped land in the Warriewood Valley Release Area.

Appendices

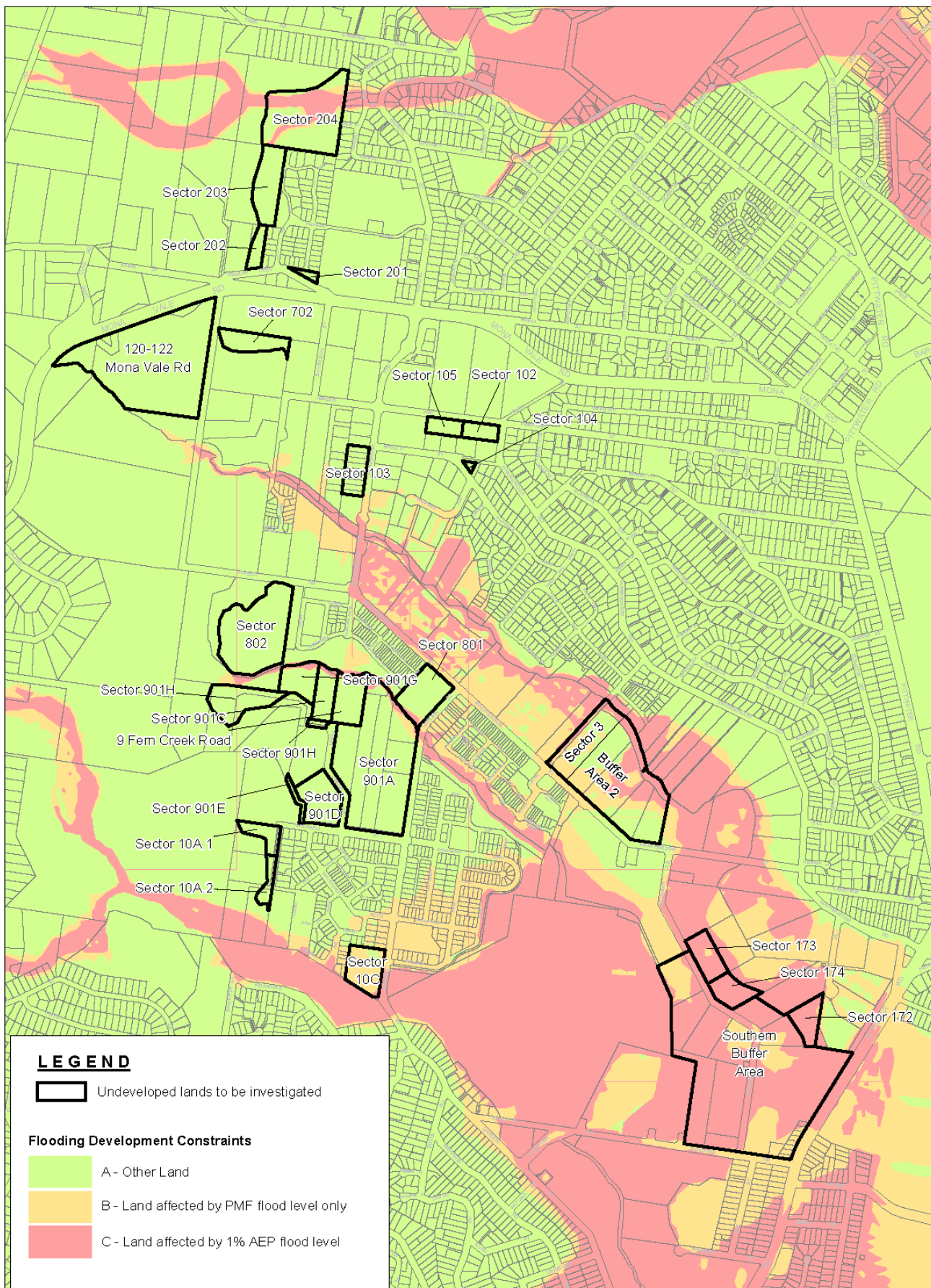


Photo by: Amanda Clarke 2011

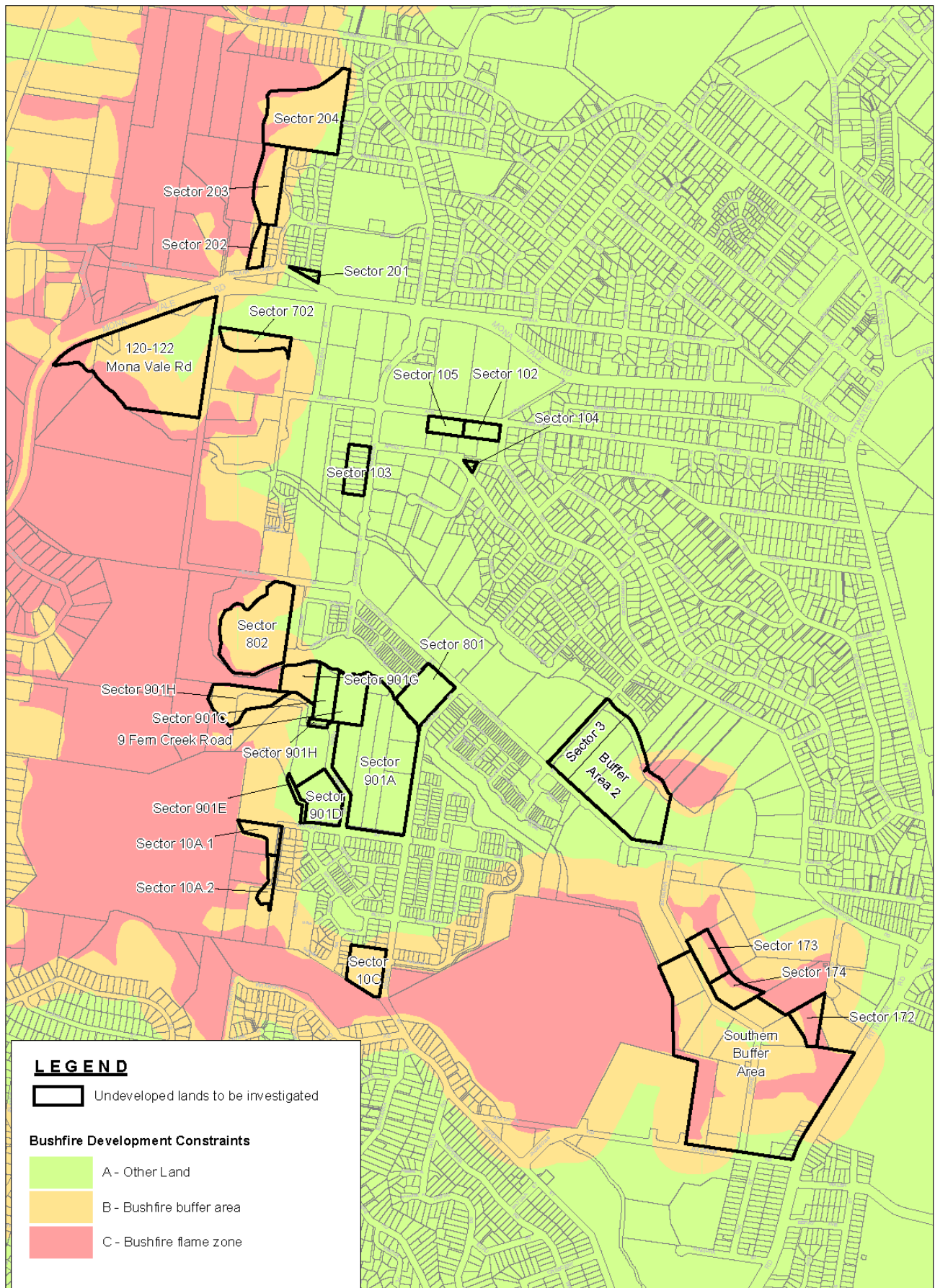
Appendix 1 to 4

Appendix 1: Updated Constraints Mapping

Map 6: Flooding Constraints Base Map – Updated based on Narrabeen Lagoon Flood Study 2013 (adopted by Pittwater Council on 4 November 2013)



Map 7: Bushfire Constraints Base Map – Updated based on Pittwater Bushfire Prone Lands Map 2013 (adopted by Council on 4 March 2013 and certified by the Rural Fire Service on 17 June 2013)



Appendix 2: Results Table

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³²	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
102	185 Warriewood Road	4,561	Private	Non-residential land use designation	Industrial	IN2 Light Industrial	Most	<ul style="list-style-type: none"> Cleared Flat Regular in shape Wide street frontage Opportunity to amalgamate with adjoining site, Sector 105 	Few constraints to development.
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	8,199	Multiple private (5)	Non-residential land use designation	Industrial	IN2 Light Industrial	Most	<ul style="list-style-type: none"> Small lot sizes with an average size of 910m² Multiple landowners Wide street frontage Flat Regular in shape 	Incentive to redevelop already by rezoning however redevelopment has been delayed due to land fragmentation. Unlikely to develop as individual parcels on speculation alone.
104	3 Harris Street	595	Private	Non-residential land use designation	Industrial	IN2 Light Industrial	Most	<ul style="list-style-type: none"> Unusual shape (triangular) and small lot size for industrial development 	Whilst it is a small site the permissible uses under PLEP 2014 would still allow development to occur on the site.
105	15 Jubilee Avenue	4,562	Private	Non-residential land use designation	Industrial	IN2 Light Industrial	Most	<ul style="list-style-type: none"> Cleared Flat Regular in shape Wide street frontage Opportunity to amalgamate with adjoining site, Sector 102 	Few constraints to development.
702	10 Jubilee Avenue	9,215	Uniting Church	Non-residential land use designation	Employment Generating Land	RU2 Rural Landscape	Moderate-More	<ul style="list-style-type: none"> Biodiversity Existing development on site 	This sector forms part of the Pittwater Uniting Church site. Given the existing development on the site, the sector is unlikely to be re-developed in the future for employment generating purposes.

³² Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³³	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
172	1A Boondah Road	7,792	Pittwater Council	Environmental constraints/ other factors	Conservation/ Open Space	RE1 Public Recreation	Least	<ul style="list-style-type: none"> Biodiversity Flooding (Category F) Bushfire 	The sector is intersected by Narrabeen Creek and contains significant vegetation. The site should be conserved for passive recreation, which is consistent with the recommended land use of recreational areas under Category F ³⁴ .
173	9A Boondah Road	8,869	Sydney Water	Environmental constraints/ other factors	Sewage Treatment Plant	SP2 Infrastructure (Sewerage System)	Least-less	<ul style="list-style-type: none"> Proposed future use which is consistent with the adjoining lands use 	Council has been advised by the land owner the site will be required for uses associated with the Warriewood Sewerage Treatment Plant in the future.
174	9 Boondah Road	7,899	Sydney Water	Environmental constraints/ other factors	Sewage Treatment Plant	SP2 Infrastructure (Sewerage System)	Least-less	<ul style="list-style-type: none"> Proposed future use which is consistent with the adjoining lands use 	Council has been advised by the land owner the site will be required for uses associated with the Warriewood Sewerage Treatment Plant in the future.
Properties within Southern Buffer	4A Boondah Road	231	Sydney Water	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least	<p><i>Note: These comments apply to all properties within the Southern Buffer</i></p> <ul style="list-style-type: none"> Flat, low lying Flooding constraints - flood depths exceeding 1m across most of the Southern Buffer in a 1% AEP event and flood events more prolonged. Identified as Category F under the Warriewood Valley Strategic Review Hydrology Study 2011. 	4A Boondah Road is owned by Sydney Water and currently contains a pumping station operated in connection with the Warriewood Sewerage Treatment Plant. Sydney Water advised that they required the land for ongoing operational use and that the current zoning of RU2 Rural Landscape appropriately accommodates this use.
	1 Boondah Road	7,475	Pittwater Council	Environmental constraints/ other factors	Employment Generating Land	SP2 Infrastructure (Public Administration Building)	Less - Moderate	<p><i>Continued below.</i></p>	Currently contains Council's Operations Centre, which is not likely to be relocated in the near future.

³³ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

³⁴ Warriewood Valley Strategic Review Hydrology Study 2011 prepared by Cardno.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³⁵	Composite Capability map classification Least to Most Capable	Constraints and Opportunities	Comments
Properties within Southern Buffer Continued	6 Jacksons Road	15,161	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least	<p><i>Note: These comments apply to all properties within the Southern Buffer</i></p> <ul style="list-style-type: none"> Biodiversity constraints - species include: <ul style="list-style-type: none"> Swamp Oak Floodplain Forest (EEC), Swamp Oak, Swamp Sclerophyll Forest (EEC), Bangalay/Apple Open Forest (characteristic of Sydney Coastal Sand Bangalay Forest EEC), Freshwater Wetlands (EEC) Bushfire hazards Privately owned lands in Southern Buffer adjoin existing recreational precinct and Warriewood Wetlands In addition some properties within the Southern Buffer have site specific opportunities/ constraints: <ul style="list-style-type: none"> 1 Boondah Road currently utilised as Council's Operations Centre 4A Boondah Road required for uses ancillary to the Warriewood Sewerage Treatment Plant 2 and 4 Jacksons Road have frontage to Pittwater Road 1 Boondah Road is classified as Category F under the Warriewood Valley Strategic Review Hydrology Report 2011. 	<p>In December 2013 a Planning Proposal was lodged for the privately owned land within the sector (6 Jacksons Road and 3, 6, 8, 10 and 12 Boondah Road). The Planning Proposal proposed to rezone the land to B4 Mixed Use, proposing a commercial, industrial and residential development with heights up to 24 metres.</p> <p>The application was refused by Council on 17 March 2014. It was considered that the proposal was not consistent with the 2012 Strategic Review. Whilst no forward path was given for the Southern Buffer under the 2012 Strategic Review, Don Fox Planning (consultants engaged to assess the application) recommended any future planning proposals should incorporate all land within the Southern Buffer and also the Warriewood Square Shopping Centre site.</p> <p>Don Fox Planning's assessment of the Planning Proposal concluded the proposal is inconsistent with the 2012 Strategic Review, the Planning Proposal was unable to achieve a clear and direct link to Warriewood Square shopping centre, and was inconsistent with recommendations of the specialist consultant reports relating to flooding, building height, dwelling density, land use, traffic generation and the format of retail floor space. Additionally, it was inconsistent with Council and NSW government policies relating to flood prone land and would result in unacceptable adverse outcomes for existing open space and recreation areas.</p> <p>This portion of the sector also has evacuation issues which are likely to restrict future uses of the sector.</p>
	3 Boondah Road	6,152	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Less		
	6 Boondah Road	10,218	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least-Moderate		
	8 Boondah Road	10,317	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least-Less		
	10 Boondah Road	10,256	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least-Less		
	12 Boondah Road	10,165	Private	Environmental constraints/ other factors	Employment Generating Land	RU2 Rural Landscape	Least-More		

³⁵ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³⁶	Composite Capability map classification Least to Most Capable	Constraints and Opportunities	Comments
<i>Properties within Southern Buffer Continued</i>	2 Jacksons Road	2,850	Pittwater Council	Environmental constraints/ other factors	Conservation/ Open Space	RE1 Public Recreation/SP2 Infrastructure (Community Facility)	Moderate-More	<ul style="list-style-type: none"> See comments above 	<p>2 and 4 Jacksons Road and 2 Boondah Road contain community centres, which have a special use zoning under the PLEP 2014. It is unlikely that these facilities will be redeveloped in the near future, except for embellishment of the existing facilities.</p> <p>2A Boondah Road and 4 Jacksons Road contain sports fields, which have a public recreation zoning under PLEP 2014.</p>
	4 Jacksons Road	57,801	Pittwater Council	Environmental constraints/ other factors	Conservation/ Open Space	RE1 Public Recreation	Least-Moderate		
	2 Boondah Road	3,750	Crown Lands	Environmental constraints/ other factors	Conservation/ Open Space	SP2 Infrastructure (Community Facility)	Less		
	2A Boondah Road	18,203	Crown Lands	Environmental constraints/ other factors	Conservation/ Open Space	RE1 Public Recreation	Least-Less		
201	4 Walana Crescent	1,302	NSW Dep't of Lands	Not considered undeveloped as part of Sector 20	Traditional Residential	SP2 Infrastructure (Cemetery)	More	<ul style="list-style-type: none"> Existing use of site ancillary to the Mona Vale Cemetery Shape Size 	<p>The sector adjoins Mona Vale Cemetery to the east.</p> <p>The land currently forms part of Sector 20. The land was donated by the developer for the expansion of the Mona Vale Cemetery when the remainder of the sector was rezoned in 2005. The transfer to the Crown occurred in 2009.</p>
202	14 Walana Crescent	4,155	Private	Not considered undeveloped as part of Sector 20	Traditional Residential	Portion of the site included in the Release Area is zoned R3 Medium Density Residential	More	<ul style="list-style-type: none"> Bushfire Flooding – Overland Flow Geotechnical Hazard Biodiversity Existing development on site Access issues if additional lots are created 	<p>The site is the undeveloped portion of Sector 20. The master plan approved for Sector 20 showed 72 lots in total. The majority of Sector 20 has been developed with 8 lots yet to be created. The master plan indicates 4 lots on this site.</p> <p>The existing dwelling and ancillary development on the site may also preclude further residential development.</p>

³⁶ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³⁷	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
203	3 Harrier Place	14,679	Private	Not considered undeveloped as part of Sector 20	Traditional Residential	Portion of the site included in the Release Area is zoned R3 Medium Density Residential	Moderate-More	<ul style="list-style-type: none"> • Bushfire • Flooding – Overland Flow • Geotechnical Hazard • Biodiversity • Access issues if additional lots are created 	<p>The site is the undeveloped portion of Sector 20. The master plan approved for Sector 20 showed 72 lots in total. The majority of Sector 20 has been developed with 8 lots yet to be created. The master plan indicates 4 lots on this site.</p> <p>Redevelopment of the site is limited due to the site's topography and geotechnical hazards. The site is also bushfire prone.</p> <p>Access is currently gained across a right of carriageway across two privately owned adjoining sites. Access to any new lots created is likely to be over this right of carriageway in the future which may be problematic. Access for emergency vehicles is also likely to be an issue.</p>
204	79 Cabbage Tree Road	38,643	Private	Not considered undeveloped as part of Sector 20	Traditional Residential	RU2 Rural Landscape	Less-More	<ul style="list-style-type: none"> • Bushfire • Flooding – Overland Flow • Geotechnical Hazard • Biodiversity 	<p>Currently contains the Aveo Peninsular Gardens Retirement Village. The sector, a residue of Sector 20, was not rezoned as part of Sector 20 as development already existed on the site. There has been no indication that the retirement village will re-develop in the future.</p>
802	5 Forest Road (Mater Maria Catholic College)	37,472	Trustees of the Roman Catholic Church	Not considered undeveloped as part of Sector 8	Medium Density Residential	RU2 Rural Landscape	Less-More	<ul style="list-style-type: none"> • Bushfire • Flooding • Geotechnical Hazard • Biodiversity • Existing development on the site 	<p>This sector is a residue of Sector 8, which was not zoned with Sector 8. It however is not zoned for residential development, nor was it attributed a yield under the master plan for Sector 8.</p> <p>It is currently developed as a school. Given the site was developed recently and scale of the development it is unlikely to be redeveloped in the future.</p>

³⁷ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³⁸	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
901D and 901E	1 Fern Creek Road and adjoining Orchard Street road reserve (901D) and portion of 12 Orchard Street (battle-axe handle) and adjoining Orchard Street road reserve (901E)	13,240 (901D) 1,914 (901E)	Private (2)	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Mixed Residential	R3 Medium Density Residential	Moderate - Less	<p><i>901D</i></p> <ul style="list-style-type: none"> Slope Visual amenity High voltage power lines Biodiversity <p><i>901E</i></p> <ul style="list-style-type: none"> Thin width as it is an access corridor which would require the cooperation of the adjoining land owners to develop 	<p>Following the completion of the 2012 Strategic Review, Council staff undertook a review of the environmental constraints affecting these sites, as well as Sector 901G and 901C.</p> <p>It was recognised that the sites had similar characteristics to Sector 20 where 6 -10 dwellings per hectare had been achieved. There was potential for Sectors 901D and 901E and the adjoining Orchard Street road reserve (north-east portion) to amalgamate, to enable more appropriate setbacks to constraints, maximising development potential across the two sites.</p> <p>The sectors were rezoned in December 2013 with a maximum dwelling yield of 12 dwellings across Sectors 901D, 901E and the adjoining Orchard Street road reserve.</p>
901G	11 Fern Creek Road	6,470	Private	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Mixed Residential	R3 Medium Density Residential	More	<ul style="list-style-type: none"> Land locked site with no access to Fern Creek Road Contains a large proportion of creek line corridor Visual Amenity Biodiversity 	<p>Following the completion of the 2012 Strategic Review, Council staff undertook a review of the environmental constraints affecting this site, 901C, as well as Sector 901D and 901E.</p> <p>It was recognised that the site had potential for 6 lots, subject to development occurring in conjunction with the adjoining land parcel (Sector 901C) as both sectors were owned by same landholder.</p> <p>The sector was rezoned in December 2013 with a maximum dwelling yield of 6 dwellings. However the sector is to be developed with 901C.</p>

³⁸ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ³⁹	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
901C	12 Fern Creek Road	6,879	Private	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Mixed Residential	R3 Medium Density Residential	More	<ul style="list-style-type: none"> Contains a large proportion of creek line corridor Visual Amenity Biodiversity 	<p>Following the completion of the 2012 Strategic Review, Council staff undertook a review of the environmental constraints affecting this site, 901G, as well as Sector 901D and 901E.</p> <p>It was recognised that the site had potential for 22 lots, subject to development occurring in conjunction with the adjoining land parcel (Sector 901G) as both sectors were owned by same landholder.</p> <p>The sector was rezoned in December 2013 with a maximum dwelling yield of 22 dwellings. However the sector is to be developed with 901G.</p>
901H	Portion of 4 and 5 Fern Creek Road	1,138	Private (2)	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Mixed Residential	RU2 Rural Landscape	More	<ul style="list-style-type: none"> Slope Visual amenity Bushfire Biodiversity 	<p>Only a portion of 4 and 5 Fern Creek Road were originally included in Sector 9. These two sites formed 901H under the 2012 Strategic Review and were identified as not suitable for development due to significant environmental constraints, particularly bushfire and biodiversity.</p> <p>The 2012 Strategic Review recommended this sector be removed from the Release Area. Land owners were given the opportunity to come forward with additional information demonstrating their sites capacity for residential development. To date, no substantive information justifying a review has been received.</p> <p>It is confirmed that the majority of the sector is not capable of being developed due to environmental constraints. However, the battle axe portion has potential to amalgamate with neighbouring development sites (either Sectors 901B, or 901C and 901G) to facilitate better development outcomes.</p> <p>Any use of the battle axe handles by the adjoining neighbours would need to ensure that access to 4 and 5 Fern Creek Road is not impeded in accordance with the "Isolation of Sites" Planning Principle.</p>

³⁹ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ⁴⁰	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
10A.1 & 10A.2	Portion of 115 and portion of 111, 111A and 113 Orchard Street	5,566 (10A.1) 3,768 (10A.2)	Private (2)	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Mixed Residential	RU2 Rural Landscape	More-Less	<ul style="list-style-type: none"> Slope Visual amenity Bushfire Biodiversity 	<p>These sectors are a residue of Sector 10 however they were not rezoned as part of the masterplan for Sector 10.</p> <p>The 2012 Strategic Review recommended these sectors be removed from the Release Area. Land owners were given the opportunity to come forward with additional information demonstrating their sites capacity for residential development. To date, no substantive information justifying a review has been received.</p>
10C	194 Garden Street	11,677	Private (1 owner, 52 strata titled units)	Not considered undeveloped as existing development on site	Mixed Residential	R3 Medium Density Residential	More	<ul style="list-style-type: none"> Bushfire Flooding Flat, regular shape Adjoins Irrawong Reserve to the south 	<p>This sector was a residue of Sector 10 however it was not rezoned or allocated a yield as the Seaside Residential Aged Care Facility existed on site.</p> <p>In recognition of the owners of the strata scheme investigating opportunities to redevelop the site, the sector should be allocated a yield that is consistent with the adjoining sectors and reflective of its position on the edge of Irrawong Reserve and the Release Area.</p>

⁴⁰ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ⁴¹	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
120 Mona Vale Road (identified as Clause 6.2 on Urban Release Area Map)	120 Mona Vale Road	77,395	Private	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Not defined in 2010 Planning Framework. ⁴²	Part E4 Environmental Living Part R2 Low Density Residential Part E2 Environment Conservation	Least - Moderate	<ul style="list-style-type: none"> Slope Visual amenity Bushfire Biodiversity Geotechnical Creek line corridor Access 	<p>Property immediately adjoins Ingleside Chase Reserve to the south and Katandra Bushland Sanctuary to the north. It also contains the upper reach of Narrabeen Creek which abuts the southern boundary.</p> <p>Access is currently facilitated by a right of carriageway via 10 Jubilee Avenue. A single driveway off Mona Vale Road currently facilitates access to the single dwelling on 120 Mona Vale Road.</p> <p>120 Mona Vale Road is substantially cleared but contains some significant vegetation on the southern fringes. This sector is also subject to bushfire and geotechnical hazards.</p> <p>This property has recently been zoned⁴³ for residential development with 122 Mona Vale Road rezoned for environmental conservation. It also rezoned the creekline corridor (25 metres from the centre of the creekline) as E2 Environment Conservation.</p> <p>At this stage the yield for 120 Mona Vale Road is uncertain, as a masterplan is yet to be submitted which is consistent with the Clause 6.2 of the PLEP 2014 and the lot size map.</p> <p>It is uncertain if 4 Boundary Street and 10 Jubilee Avenue are proposed to provide access to 120 Mona Vale Road as part of the redevelopment of the site.</p> <p>The creekline corridors within 120 and 122 Mona Vale Road contain part of the upper reach of the Narrabeen Creek catchment. A missing portion of the upper reach, south of 120 Mona Vale Road is contained on 3 Boundary Street; however 3 Boundary Street is not part of the Release Area.</p>

⁴¹ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

⁴² Council resolution of 18 September 2006 to include 120 Mona Vale Road in the Warriewood Valley Release Area.

⁴³ PLEP 2014 Amendment 1 (came into effect on 27 June 2014). The JRPP was the Relevant Planning Authority, being the authority that progressed the rezoning of the property.

Sector	Address	Area (m ²)	Land owner	Reason for exclusion from 2012 Strategic Review	Land use designation under 2010 Planning Framework	Current zoning under PLEP 2014 ⁴⁴	Composite Capability map classification <i>Least to Most Capable</i>	Constraints and Opportunities	Comments
122 Mona Vale Road	122 Mona Vale Road	5,516	Private	Investigated but no density recommended as environmentally constrained and unlikely to achieve density greater than 25 dwellings per hectare	Not defined in 2010 Planning Framework. ⁴⁵	E2 Environment Conservation	Least - Moderate	<ul style="list-style-type: none"> Slope Visual amenity Bushfire Biodiversity Geotechnical Creek line corridor Access 	<p>The property immediately adjoins Ingleside Chase Reserve to the south and Katandra Bushland Sanctuary to the north. Contains the upper reach of Narrabeen Creek which abuts the southern boundary.</p> <p>This property has recently been rezoned⁴⁶ for environmental conservation. It also rezoned the creekline corridor (25 metres from the centre of the creekline) as E2 Environment Conservation.</p> <p>The property has been identified for acquisition on the Urban Release Area Map.</p>
Creek Line Corridor within Buffer Area 1 sub-sectors	-	-	Multiple private	-	Creek line corridor subject to environmental constraints including a Threatened Species Community	R3 Medium Density Residential	Least	<ul style="list-style-type: none"> Biodiversity Flooding 	<p>Environmentally sensitive lands within the Buffer Area 1 subsectors were identified to be purchased under the Section 94 Plan.</p> <p>The review of the Section 94 Plan has rationalised expenditure, identifying only the inner 25m creek line corridor component for purchase.</p> <p>The land is identified on the Biodiversity map in the PLEP 2014. Future development will need to consider the potential impact of the development on the vegetation.</p>

⁴⁴ Since exhibition of the addendum report, the Pittwater Local Environmental Plan (PLEP) 2014 has come into effect.

⁴⁵ Council resolution of 18 September 2006 to include 120 Mona Vale Road in the Warriewood Valley Release Area.

⁴⁶ PLEP 2014 Amendment 1 (came into effect on 27 June 2014). The JRPP was the Relevant Planning Authority, being the authority that progressed the rezoning of the property.

Appendix 3: Recommendations for Residential Sectors

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Additional Dwellings	Comments
201	4 Walana Crescent	-	Remove from PLEP 2014 Urban Release Area Map. No change to zoning in PLEP 2014 (SP2 Infrastructure (Cemetery)).	0	Sector now part of Mona Vale Cemetery site and already zoned for this use (SP2 Infrastructure (Cemetery)).
202	14 Walana Crescent	Residential – Low density	Amend PLEP 2014 Urban Release Area Map – identify as individual sector. Amend PLEP 2014 Part 6.1 Clause 3 – attribute a maximum yield of 1 dwelling	-3	Landowner has no intention to develop the site further. Original master plan for Sector 20 showed site accommodating 4 dwellings.
203	3 Harrier Place	Residential – Low density	Amend PLEP 2014 Urban Release Area Map – identify as individual sector. Amend PLEP 2014 Part 6.1 Clause 3 – attribute a maximum yield of 4 dwellings.	0	Recommended yield consistent with original master plan for Sector 20.
204	79 Cabbage Tree Road (Aveo Peninsular Gardens Retirement Village)	-	Remove from PLEP 2014 Urban Release Area Map. No change to zoning (RU2 Rural Landscape).	0	Developed as a seniors living development prior to land being identified for release. Unlikely to be redeveloped.
Buffer Area 2 and Sector 3	6-14 Macpherson Street (Anglican Retirement Village)	Residential – Medium density	Amend PLEP 2014 Urban Release Area Map – consolidated sector labelled “Buffer Area 2”. Amend PLEP 2014 Part 6.1 Clause 3 – remove Sector 3 and attribute a maximum yield of 147 dwellings to Buffer Area 2.	0	Anglican Retirement Village development straddles Buffer Area 2 and Sector 3.

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Additional Dwellings	Comments
801	23B Macpherson Street	Residential - Medium Density and Focal Neighbourhood Centre	No change to PLEP 2014.	0	Already zoned R3 Medium Density Residential with a dwelling yield of 38 dwellings. Already listed in Schedule 1 of the PLEP 2014 which allows the additional permitted use of development for the purpose of restaurants, cafes and neighbourhood shops.
802	Portion of 5 Forest Road (Mater Maria Catholic College)	Infrastructure	Amend PLEP 2014 Urban Release Area Map – identify as individual sector. Amend zoning under PLEP 2014 - Rezone entire school site to SP2 Infrastructure (Educational Establishment)	0	Developed as school, unlikely to be redeveloped for residential development. Recommended to be zoned SP2 Infrastructure (Educational Establishment), consistent with the zoning of schools in LGA.
9 Fern Creek Road	9 Fern Creek Road	Recreation	No change to PLEP 2014.	0	Already rezoned R3 Medium Density Residential but was not allocated a dwelling yield as Council recognised 9 Fern Creek Road being integral to facilitating better design outcomes for the surrounding sectors and 9 Fern Creek Road.
901 D	1 Fern Creek Road and Orchard Street Road Reserve	Residential – Low Density	No change to PLEP 2014.	0	Already zoned R3 Medium Density Residential and attributed a dwelling yield of 16 dwellings
901E	Portion of 12 Orchard Street				
901G	11 Fern Creek Road	Residential – Low Density	Amend PLEP 2014 Part 6.1 Clause 3 to identify Sectors 901G and 901C together and attribute a maximum yield of 28 dwellings and a minimum of 17 dwellings.	0	Already zoned R3 Medium Density Residential with a dwelling yield of 6 dwellings
901C	12 Fern Creek Road	Residential – Medium Density	Amend PLEP 2014 Part 6.1 Clause 3 to identify Sectors 901G and 901C together and attribute a maximum yield of 28 dwellings and a minimum of 17 dwellings.	0	Already zoned R3 Medium Density Residential with a dwelling yield of 22 dwellings

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Additional Dwellings	Comments
901H	Portion of 4 & 5 Fern Creek Road	Residential - Medium Density (Battle-axe handles only)	<p>Amend PLEP 2014 Urban Release Area Map – identify revised 901H (battle-axe handles only) as Sector 901H.</p> <p>Amend zoning under PLEP 2014 – Rezone battle-axe handles to R3 Medium Density Residential.</p> <p>Amend PLEP 2014 Part 6.1 Clause 3 – allocate a maximum of 3 dwellings</p> <p>Amend PLEP 2014 Minimum Lot Size Map and Height of Buildings Map.</p>	3	<p>Original 901H is unlikely to be developed. Battle-axe portion has capacity to be incorporated into either adjoining sector and to incentivise development occurring. Yield for battle axe portion is based on a density of 32 dwellings per hectare developing with Sectors 901B or 901C.</p>
10A.1 & 10A.2	<p>Portion of 115 Orchard Street</p> <p>Portion of 111, 111A and 113 Orchard Street</p>	-	No change to PLEP 2014.	0	<p>Unlikely to be developed residentially because of significant environmental constraints.</p> <p>Sectors already removed from PLEP 2014 Urban Release Area Map and is zoned RU2 Rural Landscape.</p>
10C	194 Garden Street (Seaside Residential Aged Care Facility)	Residential – Low Density	<p>Amend PLEP 2014 Urban Release Area Map – identify as individual sector.</p> <p>Amend PLEP 2014 Part 6.1 Clause 3 – allocate a maximum yield 17 dwellings</p>	17	<p>Already zoned R3 Medium Density Residential under PLEP 2014.</p> <p>Yield based on a density of 15 dwellings per hectare, consistent with density of adjoining Sector 10.</p>
120 & 122	120 & 122 Mona Vale Road	Conservation (122) and Residential – Low Density (120)	<p>Amend PLEP 2014 Urban Release Area Map – identify sites as individual sectors – Sector 120 & 122.</p> <p>No change to zoning.</p>	No yield determined as Clause 6.2 of PLEP 2014 requires a DCP to be prepared for the site to determine the yield.	No change to current zoning in PLEP 2014 (Part E4 Environmental Living, R2 Low Density Residential and E2 Environment Conservation) in recognition of current Planning Proposal progressed by the JRPP.

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Additional Dwellings	Comments
Creek Line Corridor	Creek line corridor within Buffer Area 1 sub-sectors	Creek Line Corridor (25 metres either side of the creek line)	Amend PLEP 2014 Urban Release Area Map - reduce the creek line corridor width to 25 metres either side of the creek line.	0	The creekline corridor land on Buffer Areas 1F, 1G, 1H, 1i, 1J and 1K identified for purchase has been reduced to 25 metres as measured from the centre line of the creek. Identifying 25 metres either side of the creekline for purchase is a practice that has consistently been applied elsewhere in Warriewood Valley.
Net Additional Dwellings				17	The net additional dwelling are based on: <ul style="list-style-type: none"> - The Additional yield recommended to be attributed to Sectors 10C (17 dwellings) and 901H (3 dwellings). - Yield currently attributed to Sector 202 recommended to be reduced (minus 3 dwellings).

Appendix 4: Recommendations for Employment Generating Sectors & Southern Buffer

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Comments
102	185 Warriewood Road	Employment Generating Land	No change to PLEP 2014.	Sector already identified on PLEP 2014 Urban Release Area Map and zoned IN2 Light Industrial. Land owners encouraged to investigate opportunities for amalgamation to facilitate development.
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	Employment Generating Land	No change to PLEP 2014.	Sector already identified on PLEP 2014 Urban Release Area Map and zoned IN2 Light Industrial. Land owners encouraged to investigate opportunities for amalgamation to facilitate development.
104	3 Harris Street	Employment Generating Land	No change to PLEP 2014.	Sector already identified on PLEP 2014 Urban Release Area Map and zoned IN2 Light Industrial. Land owner encouraged to explore options for employment generating on site.
105	15 Jubilee Avenue	Employment Generating Land	No change to PLEP 2014.	Sector already identified on PLEP 2014 Urban Release Area Map and zoned IN2 Light Industrial. Land owners encouraged to investigate opportunities for amalgamation to facilitate development.
172	1A Boondah Road	Recreation	No change to PLEP 2014. Amend PLEP 2014 Urban Release Area Map – include sector in Southern Buffer Sector.	Not suitable for employment generating development.
173	9A Boondah Road	-	No change to PLEP 2014.	Sector not in PLEP 2014 Urban Release Area Map. Zoned SP2 Infrastructure (Sewerage System). Sydney Water has indicated land is required for Sewerage Treatment Plant operations.
174	9 Boondah Road	-	No change to PLEP 2014.	Sector not in PLEP 2014 Urban Release Area Map. Zoned SP2 Infrastructure (Sewerage System). Sydney Water has indicated land is required for Sewerage Treatment Plant operations.

Sector	Property Address	Recommended Land Use Designation	Recommended Forward Path	Comments
Southern Buffer	2 and 4 Jacksons Road and 2, 2A, 3, 4A, 6, 8, 10, 12 Boondah Road	Recreation	No change to PLEP 2014.	<p>No longer considered appropriate for employment generating development. Majority of sector best utilized for recreation.</p> <p>2 and 4 Jacksons Road zoned part RE1 Public Recreation and SP2 Infrastructure (Community Facility).</p> <p>2 Boondah Road zoned SP2 Infrastructure (Community Facility).</p> <p>2A Boondah Road zoned RE1 Public Recreation.</p> <p>3, 4A, 6, 8, 10, 12 Boondah Road zoned RU2 Rural Landscape.</p> <p>All sectors already identified on PLEP 2014 Urban Release Area Map.</p>
	1 Boondah Road	Infrastructure	No change to PLEP 2014.	<p>No longer considered appropriate for employment generating development. To be retained as Councils operation facility.</p> <p>Zoned SP2 Infrastructure (Public Administration Building).</p> <p>Sector already identified on PLEP 2014 Urban Release Area Map.</p>
	6 Jacksons Road	No development potential	No change to PLEP 2014.	<p>No longer considered appropriate for employment generating development.</p> <p>Zoned RU2 Rural Landscape.</p> <p>Sector already identified on PLEP 2014 Urban Release Area Map.</p>
702	10 Jubilee Avenue	-	No change to PLEP 2014.	<p>Site currently utilised for Pittwater Uniting Church, unlikely to be developed for industrial use.</p> <p>Sector not in PLEP 2014 Urban Release Area Map. Zoned RU2 Rural Landscape.</p>

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ATTACHMENT 5 Warriewood Valley Strategic Review Report 2012



Planning &
Infrastructure



PITTWATER
COUNCIL

Warriewood Valley Strategic Review Report



Adopted 12 June 2013

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Amendment no.	Date	Description	Status
1	17.11.2011	Draft Warriewood Valley Strategic Review Report provided to Steve Evans and Lindsay Dyce for review. Minor changes incorporated.	Draft – not adopted by Council
2	23.12.2011	Draft Warriewood Valley Strategic Review Report circulated to PCG. Minor changes incorporated.	Draft – not adopted by Council
3	9.3.2012	Draft Warriewood Valley Strategic Review Report amended to reflect issues regarding NSW flood evacuation policy.	Publicly exhibited draft – not adopted by Council
4	21.11.2012	Draft Warriewood Valley Strategic Review Report amended as a result of submissions received during public exhibition.	Final draft – provided to General Manager and Director General to endorse
5	9.04.2013	Minor grammatical changes to improve readability	Final draft
6	1.05.2013	Final Draft Warriewood Valley Strategic Review endorsed by Director General, Department of Planning & Infrastructure on 1 May 2013.	Final draft – endorsed by General Manager and Director General
7	12.06.2013	Warriewood Valley Strategic Review Report adopted by Council at meeting held 12 June 2013.	Adopted by Council

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Executive Summary



Photo by: Tija Stagni 2012

Chapter 1

1.0 Executive Summary

The Department of Planning and Infrastructure (the Department) and Pittwater Council (Council) have jointly prepared the Draft Warriewood Valley Strategic Review Report (the Strategic Review Report) for public consultation.

1.1 Background

The catalyst for this review was the Planning Assessment Commission's determination of the development at 14-18 Boondah Road under Part 3a of the *Environmental Planning and Assessment Act 1979*.

The PAC report called for "a comprehensive strategic study for all undeveloped land in the (Warriewood) Valley".

The Review covered Council's dwelling density and height control for Warriewood Valley, the current transport network and infrastructure demands. It also explores development opportunities for the Southern Buffer, including the potential for a mixed-use centre.

The Review relies on comprehensive environmental, social and economic data to ensure its outcomes provide for sustainable development. It also considered opportunities to provide additional and varied housing and an expanded centre in Warriewood Valley to respond to the directions of the *Draft North East Subregional Strategy*.

The Review re-examines the planning for Warriewood Valley expressed in the *Warriewood Valley Planning Framework 2010* (2010 Planning Framework).

1.2 The Review Process

1.2.1 Step 1 – Preliminary Review

A preliminary review of land parcels within Warriewood Valley, including 120 Mona Vale Road, identified undeveloped lands that should be investigated for their development potential.

The preliminary review found the following sectors did **not** warrant further investigation:

Sector ID	Property Address	Reason
102	185 Warriewood Road	Industrial land use designation - Already zoned 4(b)
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	Industrial land use designation - Already zoned 4(b)
104	3 Harris Street & 16 Apollo Street	Industrial land use designation - Already zoned 4(b)
105	15 Jubilee Avenue	Industrial land use designation - Already zoned 4(b)

201	4 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework
202	14 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework
203	3 Harrier Place	Not identified as undeveloped in 2010 Planning Framework
204	79 Cabbage Tree Road (<i>Aveo Peninsular Gardens Retirement Village</i>)	Not identified as undeveloped in 2010 Planning Framework
702	10 Jubilee Avenue	Portion of site designated Industrial as part of Sector 7 however majority of site not in 2010 Planning Framework. Still zoned 1(b) – not zoned with majority of Sector 7 lands now under development.
802	5 Forest Road (Mater Maria School)	Not identified as undeveloped in 2010 Planning Framework
10C	194 Garden Street (Seaview Assisted Living Apartments)	Not identified as undeveloped in 2010 Planning Framework

These sectors will retain their current zoning and land use prescription under the 2010 Planning Framework. The onus will be on individual landowners to lodge a rezoning application to Council if they wish to change the current land use prescription.

1.2.2 Step 2 – Land Capability Assessment

A land capability assessment identified land with potential for intensification of development. This land would be subject to a dwelling density review based on the medium density range (25 dwellings per hectare to 60 dwellings per hectare) under *The Metropolitan Plan for Sydney 2036* (the Metropolitan Plan).

The land capability assessment considered environmental, economic and social characteristics that influence land use allocation decisions, such as biodiversity; topography; proximity to water courses, ridgelines, foreshores and waterbodies; cultural heritage; bushfire risks; geotechnical issues; coastal and estuarine processes; acid sulphate soils; reticulated sewer and water availability.

A Composite Capability Map identified the following residential sectors as having potential for intensification of development:

Sector ID	Property Address	Current Density
101	165-167 Warriewood Road (residue lot Sector 1)	15/Ha
301	20 Macpherson Street	25/Ha
302	18 Macpherson Street	25/Ha
303	16 Macpherson Street	25/Ha
501	4-8 Forest Road	25/Ha

801	23B Macpherson Street	25/Ha
901A to F	11,12 and 13 (Sector 8); 1,2,4,5,9 & 10 Fern Creek Road; 2,4,6,12 & 14 Orchard Street, 204 & 206 Garden Street, and Orchard St road reserve (2A, 4A, 6A & 8 Orchard Street)	25/Ha
10A.1	115 Orchard Street	15/Ha
10A.2	111, 111a & 113 Orchard Street	15/Ha
10B	109 Orchard Street	15/Ha
Buffer 1a	<i>Formally known as 61 Warriewood Road</i>	25/Ha (15m street frontage @10/Ha)
Buffer 1b	53 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1c	53a Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1d	53b Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1e	53c Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1f	49 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1g	45 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1h	43 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1i	41 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1j	31 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1k	29 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1l	23,25 & 27 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1m	2 Macpherson Street	0 (No allocation)
Buffer 2a	4 Macpherson Street	Design specific (max 20 dwellings)
Buffer 3b	5 & 7 Macpherson Street	25/Ha

The Southern Buffer was also identified for further investigation.

As the land capability assessment showed that the following sector has significant environmental constraints, it was precluded from further consideration under this Review:

Sector ID	Property Address	Reason
120 MV	120 Mona Vale Road	Significant environmental constraints.

1.2.3 Step 3 – Detailed Investigation

Further detailed investigation then determined appropriate levels of development for the sectors identified at Step 2.

Independent consultant studies on hydrology, urban design, strategic transport and economic feasibility were commissioned to provide sufficient information to determine the recommended density applied to specific residential sectors. The studies also informed the development opportunities and constraints that produced the Concept Plan and design principles for the Southern Buffer.

Hydrology Study Outcomes

The Warriewood Valley Strategic Review Hydrology Study detailed the extent of flooding over Warriewood Valley in both the 1% AEP and the Probable Maximum Flood (PMF) event. The Hydrology Study categorised land as follows:

- Sectors unaffected by flooding
- Sectors affected by flooding only to an extent that could be addressed through onsite works as part of future development and which are provided with flood free access during both the 1% AEP and PMF event
- Sectors affected by flooding only to an extent that could be addressed through onsite works as part of future development and which are not currently or planned to be provided with flood free access up to the PMF event
- Sectors so affected by flooding they are not suitable for intensified development.

The Hydrology Study also determined the level of development potential in the Southern Buffer area.

The Hydrology Study identified the following sectors as unsuitable for intensified development due to the flood depth and flow characteristics.

Sector ID	Property Address	Reason
Buffer 1M	2 Macpherson Street	Significant flood constraints

The outcomes of the Hydrology Study are incorporated into Table A and B.

Urban Design Study Outcomes

The Warriewood Valley Urban Design Study took into account each individual residential sector's environmental attributes and locational context and proposes a built form for each sector. Options for development of a mixed-use centre and design principles were also prepared for the Southern Buffer.

The outcomes of the Urban Design Study are incorporated into Table A and Table B.

Transport Study Outcomes

The Warriewood Valley Strategic Transport Study detailed the traffic impacts of various development scenarios for the undeveloped residential land and the Southern Buffer. The Strategic Transport Study found most key intersections would continue to operate at acceptable levels of service in the am and the pm peaks. Mitigation works would be required at certain intersections for some development scenarios.

The outcomes of the Transport Study are incorporated into Table A and B.

Economic Feasibility Study Outcomes

The Warriewood Valley Strategic Review Economic Feasibility Study tested the feasibility of several residential development scenarios. The Economic Feasibility Study found small-lot housing and townhouses can be viable when the minimum density is set at 30-35 dwellings per hectare. While it found that apartment buildings would only be economically viable at minimum densities of 60 dwellings per hectare, this level and form of development is generally much greater than that recommended in the Warriewood Valley Urban Design Study.

The Economic Feasibility Study considered the feasibility of various development scenarios based on Hydrology Study outcomes for a mixed-use centre in the Southern Buffer. It found that a single level subregional shopping centre would be the most economically viable option.

The outcomes of the Economic Feasibility Study are incorporated into Table A and B.

1.3 Public exhibition of Draft Warriewood Valley Strategic Review Report

The Draft Warriewood Valley Strategic Review Report and consultant studies were exhibited for a period of 8 weeks between 24 March 2012 and 18 May 2012. During this time a community briefing session was held.

In addition to the community briefing session, members of the PCG met with specific landowner groups during the exhibition period. After the exhibition the PCG members met with the Local Member and the Warriewood Residents Association.

Submissions were received through a number of formats, including formal written submissions, written and online comment forms, an online mapping tool and other various social media forums. During the exhibition period over 350 submissions were received. Opportunity was given for information supporting original submissions to be provided until 1 June 2012.

A report entitled "Analysis of Submissions to Warriewood Valley Strategic Review" was prepared in response to submissions received and accompanies the final Strategic Review Report. The submissions received during the exhibition period have been taken into account in finalising the Warriewood Valley Strategic Review Report.

1.4 Recommendations for Residential Densities

- That the residential densities proposed in Tables A and B, resulting in additional 193 dwellings, be adopted.
- That Sectors 901D, 901E, 901G, 901H, 10A.1 and 10A.2 have been identified with no significant capacity for development. Landowners may seek to bring forward a rezoning application, supported by the necessary studies, demonstrating how sustainable development is to be achieved.

Tables A and B below summarise the recommendations made for individual sectors, and compare the recommended density and yield to that prescribed under the Warriewood Valley Planning Framework 2010. The tables below also identify the sectors determined to have safe access for evacuation in a PMF event, and a recommend a forward path for each sector.

Table A: Recommendation for sectors identified for increased density subject to resolution of flood emergency response policy issue

Sector ID	Property Address	2010 Density	New Density*	2010 Yield	New Yield	Additional Dwellings	Ability to evacuate in PMF + climate change	Recommended Forward Path
101	165-167 Warriewood Rd	15/Ha ⁺	26/Ha	1	4	3	YES	Progress rezoning
301	20 Macpherson St	25/Ha	32/Ha	42	53	11	NO	Progress rezoning ⁺⁺
302	18 Macpherson St	25/Ha	32/Ha	66	84	18	NO	Progress rezoning ⁺⁺
303	16 Macpherson St	25/Ha	32/Ha	23	29	6	NO	Progress rezoning ⁺⁺
501	4 & 8 Forest Rd	25/Ha ⁺	32/Ha	75	94 ^{**}	19	NO	Progress rezoning ⁺⁺
801	23B Macpherson St	25/Ha	32/Ha	19	38 ^{***}	19	NO	Progress rezoning ⁺⁺ May commence construction based on development consent ^{***}
901	See Separate Table⁺⁺⁺	25/Ha ⁺	<i>Various</i>	245	264	19	NO	See Separate Table⁺⁺⁺
10A.1	115 Orchard Street	15/Ha ⁺	<i>No density allocated^{****}</i>	8	0	-8	NO	Landowner may seek rezoning. Await outcome of determination ⁺⁺
10A.2	111,111a & 113 Orchard St	15/Ha ⁺	<i>No density allocated^{****}</i>	6	0	-6	NO	Landowner may seek rezoning. Await outcome of determination ⁺⁺

*Density calculated on the developable area (site area minus area as identified environmentally sensitive)

⁺Density achieved across the whole sector rather than on individual land parcels

^{**}Incorrect total (99 dwellings) shown in Exhibited Report and Urban Design Study. Correct total 94 dwellings.

⁺⁺ Subject to State Government resolution of flood emergency response policy.

^{***}Construction may be commenced under current Development Consent for 46 dwellings and Focal Neighbourhood Centre (approved under SEPP (Affordable Rental Housing))

⁺⁺⁺ Sector 901 – divided into sub-sectors as a result of environmental attributes.

^{****}No significant capacity for development.

Table A: Continued

Sector ID	Property Address	2010 Density	New Density*	2010 Yield	New Yield	Additional Dwellings	Ability to evacuate in PMF + climate change	Recommended Forward Path
10B	109 Orchard St	15/Ha ⁺	20/Ha	28	45	17	NO	Progress rezoning***
Buffer 1a	<i>Previously known as 61 Warriewood Rd</i>	25/Ha ⁺	<i>No longer considered undeveloped**</i>	17	<i>15 dwellings under construction</i>	-2	YES	No change to current density as construction commenced
Buffer 1b	53 Warriewood Rd	25/Ha ⁺	32/Ha	17	24	7	YES	Progress rezoning
Buffer 1c	53a Warriewood Rd	25/Ha ⁺	32/Ha	13	18	5	YES	Progress rezoning
Buffer 1d	53b Warriewood Rd	25/Ha ⁺	32/Ha	1	1	0	YES	Progress rezoning
Buffer 1e	53c Warriewood Rd	25/Ha ⁺	32/Ha	11	15	4	YES	Progress rezoning
Buffer 1f	49 Warriewood Rd	25/Ha ⁺	32/Ha	14	21	7	YES	Progress rezoning
Buffer 1g	45 Warriewood Rd	25/Ha ⁺	32/Ha	17	23	6	YES	Progress rezoning
Buffer 1h	43 Warriewood Rd	25/Ha ⁺	32/Ha	1	1	0	YES	Progress rezoning
Buffer 1i	41 Warriewood Rd	25/Ha ⁺	32/Ha	27	39	12	YES	Progress rezoning
Buffer 1j	31 Warriewood Rd	25/Ha ⁺	32/Ha	26	40	14	YES	Progress rezoning
Buffer 1k	29 Warriewood Rd	25/Ha ⁺	32/Ha	14	21	7	YES	Progress rezoning
Buffer 1l	23,25 & 27 Warriewood Rd	25/Ha ⁺	32/Ha	43	67	24	YES	Progress rezoning
Buffer 2a	4 Macpherson St	<i>Site specific design</i>	22/Ha	20	29	9	NO	Progress rezoning***
Buffer 3b	5 & 7 Macpherson St	25/Ha ⁺⁺	32/Ha	7	9	2	NO	Progress rezoning***
TOTAL ADDITIONAL DWELLINGS						193		

*Density calculated on the developable area (site area minus area as identified environmentally sensitive)

⁺Density calculated on individual parcel basis, with the first 15m fronting the street at 10/Ha and remainder at 25/Ha.

**Sector no longer considered undeveloped. Development substantially commenced onsite in 2011/2012.

⁺⁺Density achieved across the whole sector rather than on individual land parcels

*** Subject to State Government resolution of flood emergency response policy.

Table B: Recommended Density for Sector 901 (as divided into sub-sectors) subject to resolution of flood emergency response policy issue

Sector ID	Property Address	2010 Density*	New Density	2010 Yield*	New Yield	Additional Dwellings	Ability to evacuate in PMF + climate change	Recommended Forward Path
901A	10 Fern Creek Rd, 2,4,6 Orchard St, Orchard St road reserve, Eastern side of Fern Creek Road, Lot 13 DP1092788	25/Ha	32/Ha	156 (no yield on 9 Fern Creek Road)	192 (no yield on 9 Fern Creek Road)	36	NO	Progress rezoning ⁺
901B	2 Fern Creek Road	25/Ha	32/Ha	12	36	24	NO	Progress rezoning ⁺
901C	Lot 12 Dp1092788 (Sector 8) west side of Fern Creek Road	25/Ha	32/Ha	17	22	5	NO	Progress rezoning ⁺
901D	1 Fern Creek Rd	25/Ha	-	14	0	-14	NO	Landowner may seek rezoning ⁺
901E	12 Orchard St (battleaxe portion only)	25/Ha	-	2	0	-2	NO	Landowner may seek rezoning ⁺
901F	14 Orchard St (southern portion only)	25/Ha	10/Ha	14	14	0	NO	Progress rezoning ⁺

*Density achieved across the whole sector rather than individual land parcels, with a 15m street frontage. Council staff have recognised that 25/ha is the maximum density able to be achieved; some subsectors can only achieve 10/ha while others can achieve 25/ha. The 2010 Framework total yield for Sector 9 was calculated on various parts of sector achieving densities between 10/Ha and 25/Ha.

⁺Any rezoning application for these sectors subject to State Government resolution of flood emergency response policy.

Table B: Continued

Sector ID	Property Address	2010 Density*	New Density	2010 Yield*	New Yield	Additional Dwellings	Ability to evacuate in PMF + climate change	Recommended Forward Path
901G	Lot 11 DP1092788 (Sector 8) west side of Fern Creek Rd	25/Ha	-	16	0	-16	NO	Landowner may seek rezoning [†]
901H	4 & 5 Fern Creek Rd (northern portion only)	25/Ha	-	14	0	-14	NO	Landowner may seek rezoning [†]
SECTOR 901 TOTAL				245	264	19		

*Density achieved across the whole sector rather than individual land parcels, with a 15m street frontage. Council staff have recognised that 25/ha is the maximum density able to be achieved; some subsectors can only achieve 10/ha while others can achieve 25/ha. The 2010 Framework total yield for Sector 9 was calculated on various parts of sector achieving densities between 10/Ha and 25/Ha.

[†]Any rezoning application for these sectors subject to State Government resolution of flood emergency response policy.

1.5 Recommendations for Resolution of Flood Emergency Response Policy Issues

The Hydrology Study raised the issue of flood evacuation of Warriewood Valley in the event of a 1% AEP and PMF event. The NSW State Emergency Service (NSWSES) has indicated that it does not support development where a flood free evacuation route up to the PMF event is not available.

As a result of the NSWSES position, the Department is undertaking an intra-government study of flood evacuation management in NSW. These investigations are exploring the potential for a consistent approach with regard to flood evacuation in flash flood events, with respect to urban development in NSW.

The results of this study may be forthcoming in 2013. However, it should be noted that the timing and outcomes of these investigations will not delay the progress of any future planning proposals in the Warriewood Valley.

1.6 Recommendations for the Southern Buffer

It is recommended that the exhibited Concept Plan for a mixed-use centre not proceed.

Future planning investigation by landowners, either working individually or as a group must address the constraints and opportunities highlighted by this review, including the impact of any proposed development on the environmental, other centres, recreational lands and community expectations.

1.7 Recommendations for Provision of Infrastructure and Services

That any increase in dwelling yield across the Valley requiring additional infrastructure and facilities be supported by a new Section 94 Contributions Plan.

That any future review of infrastructure and service provision takes into consideration the recommendation of the Economic Feasibility Study that developer contribution rate should be set at \$50,000 (indexed) per dwelling.

That any future development of the Southern Buffer require an infrastructure planning strategy and plan prepared concurrent with any rezoning.

1.8 Conclusion

The Strategic Review provided any opportunity to re-evaluate dwelling densities, infrastructure requirements and services/facilities in Warriewood Valley, and to examine the opportunities and constraints of the Southern Buffer.

The recommended dwelling densities of up to 32 dwellings per developable hectare is contingent on appropriate design criteria and infrastructure provision strategies.

The findings of the Review to reduce the Section 94 Contribution rate to accommodate development could impact infrastructure provision.

This Strategic Review Report, supported by the background land capability assessment approach and consultants' reports will ensure continuity for the Council, Department and the community.

A clear flood emergency response that is acceptable to the State government must be agreed prior to future rezoning of land that does not have evacuation routes clear of the PMF event. .

Warriewood Valley In Context

An award winning land release project, demonstrating an accessible and liveable community that values its ecologically significant setting



Photo by: Rod Smith 2009

2.0 Warriewood Valley in Context

2.1 Locality

The Pittwater Local Government Area (LGA) is located on the northern fringe of the Sydney Metropolitan Area within the Warringah Peninsula. It encompasses around 109 square kilometres, including a large part of Ku-ring-gai Chase National Park, 18 square kilometres of waterways and 18 kilometres of ocean coastline including nine beaches.

Warriewood Valley, located in the southern portion of the Pittwater LGA, is bordered by the Pittwater escarpment in the west, Warriewood Wetlands to the south, Warriewood Sewerage Treatment Plant (STP) and Warriewood itself to the east, and Mona Vale to the north. The Valley is dissected by Narrabeen Creek and Fern Creek, running from the Warriewood escarpment in the north-west to the Warriewood Wetlands and Narrabeen Lagoon in the south-east.

The Warriewood Valley Release Area (the Release Area) is around 190 hectares. Founded mainly on Hawkesbury sandstone with alluvial soil on the valley floor, the Release Area was previously used for agricultural purposes and contained a diversity of vegetation. It has since been cleared; remnant areas of vegetation and regrowth sit along the watercourses and flood areas, particularly adjacent to the Wetlands.

The Release Area, (not including the Southern Buffer), has delivered urban housing of densities up to 25 dwellings per hectare, including attached and detached dwelling houses, terraces and townhouses, and multi-unit housing incorporating Torrens, Strata and Community titles. The Southern Buffer has been fully investigated for the first time as part of this review.

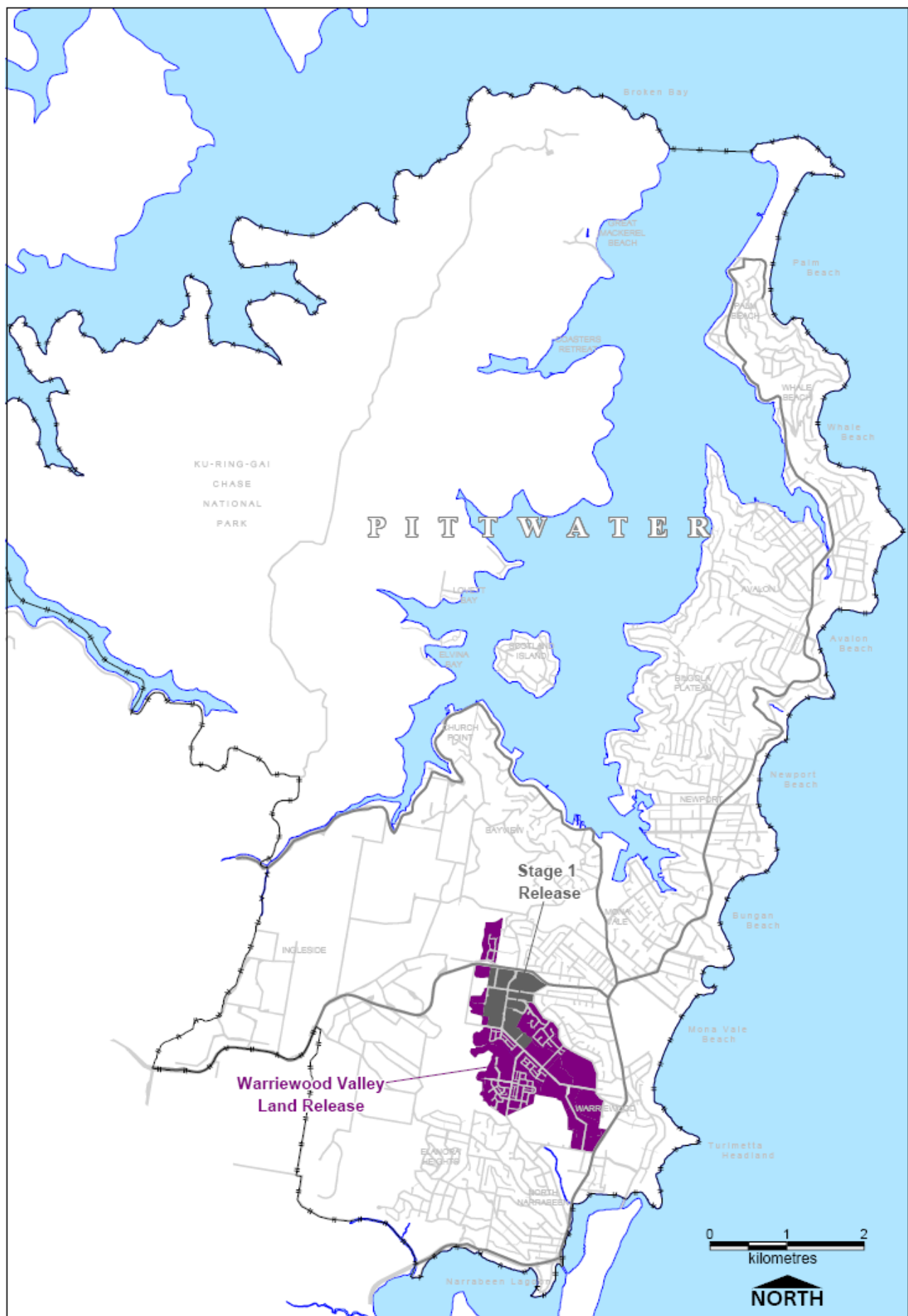
The Release Area includes 27 hectares of industrial/commercial land and associated community facilities and infrastructure. Industrial and commercial developments adjoin the existing light industrial and office business area of Warriewood.

A Focal Neighbourhood Centre has recently been approved on 23B Macpherson Street.

High quality buildings, designed and built at a scale and density complementary to the natural environment, preserve district and local views and enhance the bushland vista of Pittwater. Native canopy trees, vegetation and the natural creekline corridors merge the built form with the landform. Landscaping reinstates elements of the natural environment and contributes to the sense of place, creating an amenable, environmentally responsible and highly desirable place to live.

A history of development in Warriewood Valley is contained in Appendix 1.

Map 1: Warriewood Valley Land Release Location Map



2.2 The Community

In 2011 the population of the Pittwater local government area was 57,155. Pittwater's population has grown significantly over with last 10 years, primarily due to Pittwater's relatively high fertility rate (compared to the NSW average). Between 2001 and 2006 the population grew 3.4%, and between 2006 and 2011 grew 5.5%.¹

Pittwater is more likely to attract families of older parents with children, rather than young couples with/without children or young singles. Most people moving to the area are 'up-graders', rather than first home buyers or renters. An increasing percentage of the population is over 60 years old, reflecting ageing in place of the long term residents. Housing is predominately family-sized detached dwellings. The proportion of medium and high density housing is at about half the rate of the Sydney average.

Warriewood Valley is identified as a moderate to high socio-economic area. Housing is more affordable than other areas of Pittwater. Comparatively, the Warriewood-Ingleside population comprises a greater proportion of children under 17 than the rest of Pittwater. The proportion of mature adults aged 65-85 is slightly lower than the rest of Pittwater, though the proportion of adults aged over 85 is the same.

¹ Australian Bureau of Statistics Census data, 2001-2011.

Why are we undertaking the Warriewood Valley Strategic Review?

Ensure the original aspirations are achieved through equitable, logical and sustainably sound planning decisions



Photo by: Amanda Clarke 2011

3.0 Why are we undertaking the Warriewood Valley Strategic Review?

3.1 Decision of the Planning Assessment Commission (PAC)

In January 2011, the PAC approved a development at 14-18 Boondah Road under Part 3A of the *Environmental Planning and Assessment Act 1979* (the EP&A Act).

The PAC determination recommended Council and the Department review dwelling densities, height controls, the current transport network and necessary improvement works, and infrastructure demands in Warriewood Valley and surrounding area. The PAC recommended the review clarify the subregional role of Warriewood Square, how it relates to the rest of Warriewood Valley, the potential for higher density residential development and the opportunity for employment-generating developments adjacent to Warriewood Square.

The review was agreed in March 2011 between Council and the Department, with Council passing a resolution to commence the Strategic Review in collaboration with the Department in May 2011.

The review took into account existing planning strategies for the LGA and for Warriewood Valley itself.

3.2 Pittwater Local Planning Strategy – Planning for Pittwater towards 2031

Pittwater Local Planning Strategy – Planning for Pittwater towards 2031, adopted by Council in August 2011, is Council's primary land use planning document. The Local Planning Strategy:

- a. Identifies Warriewood Valley as crucial to meet delivery of 4,600 new dwellings as required by the *Draft North East Subregional Strategy* and 5,740 new jobs as set out in the *SHOROC Regional Employment Study* within the LGA by 2031.
- b. Identifies Warriewood Valley as the area with the most potential to provide affordable rental housing in Pittwater.
- c. Recognises Warriewood Square as a 'stand-alone shopping centre', as defined under the *Metropolitan Plan for Sydney 2036* (the Metropolitan Plan).

The Metropolitan Plan identifies the potential for existing stand-alone shopping centres to be converted to more traditional town centres over time. The Local Planning Strategy proposes the expansion of Warriewood Square and development of the Southern Buffer area into a larger retail and town centre, enabling a mix of commercial, retail and possibly residential development.

- d. Reiterates that development of the Southern Buffer help meet Pittwater's employment target, especially with employment land in Warriewood Valley nearing capacity.

The Southern Buffer is identified in the *Draft North East Subregional Strategy* and the *SHOROC Employment Study* as potential key employment land for Pittwater. The Local Planning Strategy supports investigation into a new retail

centre in the Southern Buffer adjoining Warriewood Square to meet Pittwater's employment targets.

The Local Planning Strategy recommends the outcomes of the Strategic Review be incorporated into Council's Standard Instrument Local Environmental Plan (LEP).

3.3 Moving from the Warriewood Valley Planning Framework 2010 to the Warriewood Valley Strategic Review 2012

The planning and development of Warriewood Valley will help deliver a sustainable residential community, the timely provision of infrastructure and services and the conservation and rehabilitation of significant environments. Both the 2010 Planning Framework and the 2012 Strategic Review establish a forward path for all undeveloped land in Warriewood Valley.

Specifically, the Strategic Review:

- Identified undeveloped land capable of potential increases in dwelling density and land unable to be developed beyond existing uses and densities due to existing environmental or development constraints
- Assessed the impact of increased density in terms of a new centre, the potential change in urban form of the area, the environmental constraints, including the Narrabeen Creek Sea Level Rise Investigation Area,² and the resultant needs of the local and wider population
- Assessed the scope of opportunity for a new mixed-use precinct in the Southern Buffer, comprising commercial, retail, civic and residential uses whilst enhancing a connected, open-space recreational precinct that complements adjoining land uses
- Identified issues relating to evacuation in major flood events.

Council had previously resolved to seek the provision of 10% of any increased density in Warriewood Valley be 'affordable rental housing'.³

The outcomes of the Strategic Review will inform provision of new or improved infrastructure and any consequent local development contributions plan or other funding arrangements.

Any undeveloped land excluded by the 2012 Strategic Review will be informed by the future resolution of Council.

² Council resolution of 7 February 2011 identified the Investigation Area.

³ Council resolution of 21 February 2011.

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Strategic Framework

Meeting expectations and targets that integrate sustainability in future land use planning decisions in Pittwater



Photo by: Amanda Clarke 2011

4.0 Strategic Framework

4.1 *NSW 2021: A plan to make NSW number one*

NSW 2021: A plan to make NSW number one is the government's strategic business plan, which sets the priorities for action by the government. One of the principal goals of the plan is to place downward pressure on the cost of living.

The government intends to work towards this goal by increasing the supply of land for housing and by providing incentives to help make housing in NSW more affordable and housing stock more appropriate for people's needs.

As well, the government intends to continue to set dwelling targets for local councils and partner with local councils to ensure that targets for housing and growth are reflected in relevant planning proposals and in local planning instruments.

4.2 *The Metropolitan Plan for Sydney 2036*

The Metropolitan Plan aims to integrate land use planning and transport planning across the city to provide a framework for sustainable growth and development.

The Metropolitan Plan was prepared with the vision that, by 2036, Sydney will be a more compact, networked city with improved accessibility, capable of supporting more jobs, homes and lifestyle opportunities within the existing urban footprint.

By 2036, the population of Sydney is expected to grow by 1.7 million people to almost 6 million people. During this time, it is also expected that the average household size in Sydney will fall from 2.6 to 2.5 people. As a result, Sydney will need an additional 770,000 homes by 2036.

In response to this expected population growth, the housing related actions in the Metropolitan Plan seek to deliver well-located housing that will meet the needs of the growing, aging population and that will assist in addressing the issue of housing affordability across the city.

A key action of the Metropolitan Plan is to locate 80% of new housing within walking distance of existing or planned centres. Focusing new housing in and around centres can increase the diversity of housing supply, encourages more trips to be made by public transport or by foot and bicycle and can increase the customer base for local businesses.

Another key action of the Metropolitan Plan is to plan for centres to grow and change over time. According to the Metropolitan Plan, the main criteria for identifying such centres should be:

- Current and proposed level of public transport capacity and access
- Economic feasibility of development
- Land ownership patterns
- Proximity of services and facilities.

A new metropolitan strategy is currently being developed for Sydney. It will provide a framework for Sydney's growth to help plan for housing, employment, transport, infrastructure, the environment and open space.

The strategy will update the current Metropolitan Plan for Sydney and link it to the government's other long term plans – the Long Term Transport Masterplan and the State Infrastructure Strategy.

4.3 Subregional Dwelling and Employment Targets

The *Draft North East Subregional Strategy* was prepared by the Department of Planning in 2007. It contains targets for housing and employment to 2031 in response to the forecast growth of Sydney contained in the *Sydney Metropolitan Strategy 2031 - City of Cities – A Plan for Sydney's Future*.

Under the *Draft North East Subregional Strategy*, the Pittwater LGA has a dwelling target of 4600 new homes and an employment target of 6000 new jobs.

Including the long term potential of the Ingleside Release Area and the capacity in existing urban areas, it is expected Council will be able to meet its current dwelling targets into the future. However, there is currently a lack of housing diversity in the Pittwater LGA compared to both the subregion and Sydney in general.

The breakdown of existing dwelling stock in the LGA is:

- Detached dwellings (80.4%)
- Villa/townhouse/dual occupancy (13.9%)
- Unit/apartment (5.7%).

By way of comparison, about 60% of dwellings are detached across Sydney.

Warriewood Valley immediately adjoins Warriewood Square, the strategic bus route along Pittwater Road and existing community facilities. In the context of the LGA, where land around existing centres is relatively constrained, Warriewood Valley offers one of a limited number of areas in the LGA where higher density, at an appropriate level, could be accommodated.

The key directions for housing in the *Draft North East Subregional Strategy* are to:

- Increase housing choice as part of the housing target
- Concentrate development and strengthen major centres, towns, villages, small villages and neighbourhoods
- Enable communities to 'age in place'.

By looking at the opportunity to provide additional and varied housing and an expanded centre in Warriewood Valley, the Strategic Review responds to the directions of the *Draft North East Subregional Strategy*.

4.4 Pittwater Council's Strategic Planning Documents

4.4.1 *Pittwater Local Planning Strategy – Planning for Pittwater towards 2031*

The Local Planning Strategy was adopted by Council on 15 August 2011 and will guide its land use planning and decision making into the future.

The Local Planning Strategy translates the aims and objectives of the government's current Metropolitan Plan and its earlier *Metropolitan Strategy*

for *Sydney to 2031* into a range of local actions and targets relevant to Pittwater, including those for housing and employment. It forms the basis for the preparation of a new Standard Instrument LEP.

The Local Planning Strategy confirms that the housing targets designated for Pittwater can be accommodated primarily within Pittwater's established residential areas, including Warriewood Valley.

It recognises the limited housing stock available to meet the needs of Pittwater's ageing population and encourages the provision of new dwellings in a range of sizes, adaptable to universal design standards, including medium density housing and secondary dwellings.

It also recommends the provision of medium density dwellings in appropriately zoned locations, in close proximity to centres, transport options and services to assist in making housing available that is more affordable to local workers.

4.4.2 Warriewood Valley Planning Framework 2010 (Adopted May 2010)

Warriewood Valley has been a significant source of new dwellings for the LGA for the past two decades. About half of the 2,000 dwellings expected for Warriewood Valley have been built. As envisaged by Council's planning frameworks, the residential sectors of Warriewood Valley have been developed predominantly with two-storey dwelling houses and attached townhouses, with some multi-unit housing.

In December 2009, Council reviewed the two planning frameworks that apply to Warriewood Valley and prepared the *Warriewood Valley Planning Framework 2010* (the 2010 Framework) that provides for a total of 2,012 dwellings in Warriewood Valley as well as setting aside approximately 27 hectares of land for industrial/commercial development. The maximum density allowed under the 2010 Framework is 25 dwellings per developable hectare.

This is the Council's current planning strategy document for the Warriewood Valley Release Area.

The Strategic Review Process



Photo by: Amanda Clarke 2011

Chapter 5

5.0 The Strategic Review Process

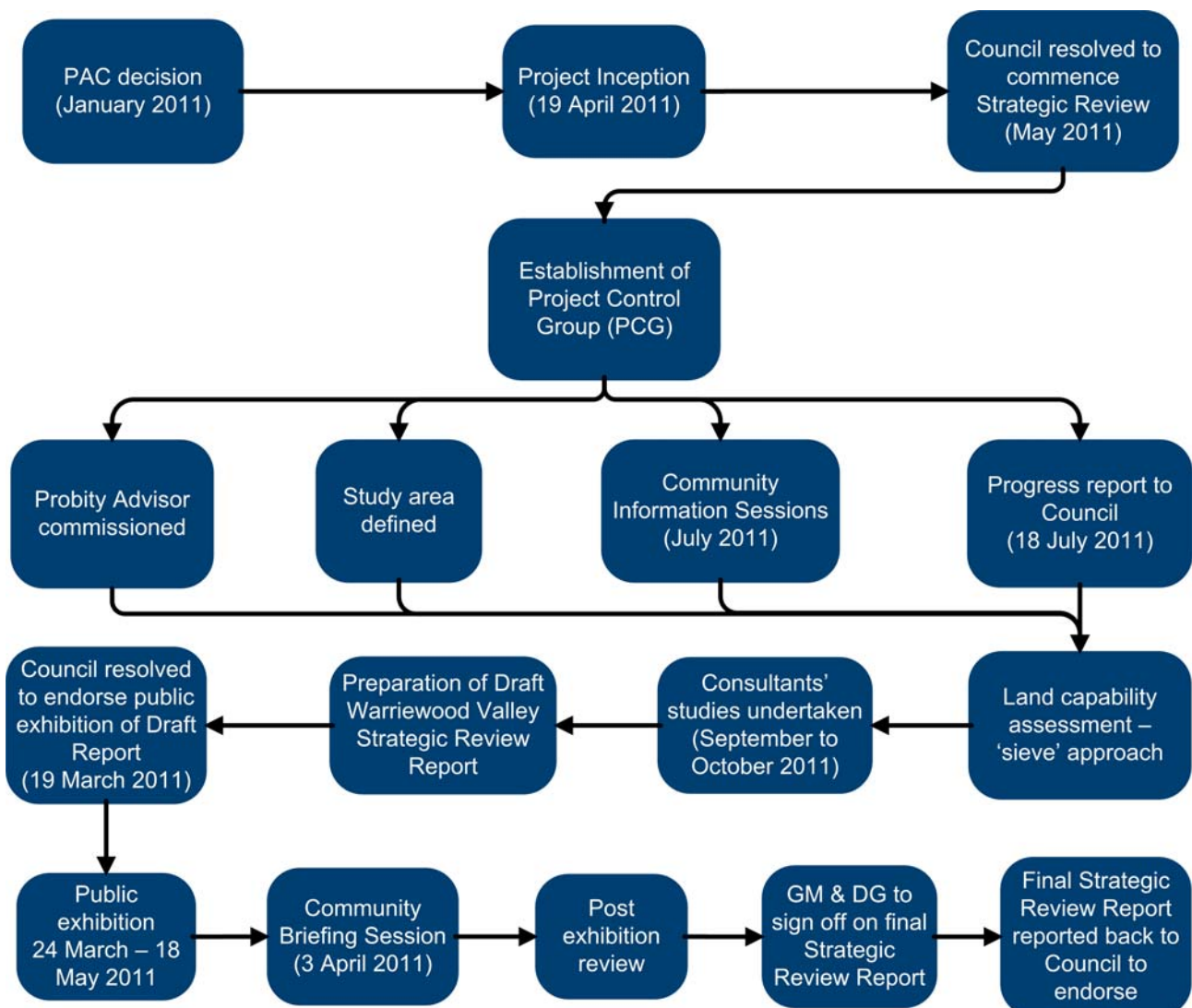
5.1 The Strategic Review Process

A Project Control Group (PCG) oversaw the Strategic Review.

Comprising senior officers from the Department (Sydney Region East and Project Delivery Unit) and Council, an independent probity advisor was also engaged to advise the PCG on probity issues relevant to undertaking the Strategic Review.

An overview of the key steps taken as part of the Strategic Review is depicted in Figure 1.

Figure 1: Warriewood Valley Strategic Review Process



5.2 Probity Issues

The PCG identified probity issues arising from the mixed ownership of land – Crown, Council and private – within the Warriewood Valley Release Area. The functions of the probity advisor were to ensure the integrity of the Strategic Review and prevent real and perceived conflicts of interest.

The role of the probity advisor included the following:

- Reviewing and providing advice on:
 - The proposed arrangements for commissioning the independent consultant studies.
 - The governance structure, protocols and approach to interacting with stakeholders.
- Preparing a Probity Plan which:
 - Identified any potential conflicts of interest and probity risks associated with the scope of the Strategic Review.
 - Clearly detailed the processes to be followed by Department and Council personnel and PCG members to avoid those identified conflicts of interest and probity risks.
 - Identified and articulated the roles and responsibilities for each PCG member.
- Attending certain PCG meetings and community information sessions, and reviewing and providing advice on key decisions and meeting minutes.

The probity advisor has audited the Strategic Review process, including preparation of the Strategic Review Report. The outcomes of the audit are in the Interim Probity Report, prepared to accompany the exhibition of the Draft Strategic Review Report. A final Probity Report has been prepared following the close of the exhibition period to accompany the final Strategic Review Report.

Both of the probity auditor's reports will outline the level of compliance with the Probity Plan and provide probity advice on implementing the outcomes of the Strategic Review.

5.3 Community Engagement

A Community Engagement Plan and Strategy was produced by Council and the Department for the Strategic Review, based on Council's Community Engagement Procedures.

The Community Engagement Strategy provided the PCG with the tools to:

- Adequately inform the community and stakeholders of the Strategic Review process, emphasising the collaborative nature of the partnership between Council and the Department.
- Ensure consistent information was provided to the community and stakeholders by Council and the Department through a joint approval process.
- Provide the community with balanced and objective information to assist them in understanding the reason for undertaking the Strategic Review and how the process was to be undertaken.
- Promote the independence and transparency of the Strategic Review.
- Provide stakeholders with readily accessible opportunities to provide comment during the Strategic Review.
- Ensure stakeholders were aware of the final outcomes of the Strategic Review.

The Community Engagement Plan and Strategy aimed to ensure that all stakeholders in the community were adequately informed and provided with opportunities to voice their opinions, whether affected directly or indirectly.

The Draft Warriewood Valley Strategic Review Report and consultant studies were exhibited for a period of 8 weeks between 24 March 2012 and 18 May 2012. During this time a community briefing session was held.

In addition to the community briefing session, members of the PCG met with specific landowner groups during the exhibition period. After the exhibition the PCG members met with the Local Member and the Warriewood Residents Association.

Submissions were received through a number of formats, including formal written submissions, written and online comment forms, an online mapping tool and other various social media forums. During the exhibition period over 350 submissions were received. Opportunity was given for information supporting original submissions to be provided until 1 June 2012.

Each submission was reviewed, collated and subsequently addressed in the Analysis of Submissions to the Warriewood Valley Strategic Review Report, which was prepared to accompany the final Strategic Review Report. The submissions received during the exhibition period have been taken into account in finalising the Warriewood Valley Strategic Review Report.

5.4 Identifying the land to be reviewed

The PAC's determination report advocated for a '*...comprehensive study of all undeveloped sites in the Valley including the future role of Warriewood Centre and the development potential around the centre...*'.

A desktop review of the land within Warriewood Valley has been conducted to identify 'undeveloped' land, based on:

- Land identified in the *Warriewood Valley Urban Land Release Revised Sectors Map* at Figure 5 of the 2010 Planning Framework; and
- Land within the original sectors of Warriewood Valley that had not been rezoned under Clause 30B of the Pittwater LEP 1993 in line with the 1997 and 2001 frameworks.

In line with a Council resolution on 18 September 2006, 120 Mona Vale Road was also included as 'undeveloped' for the purpose of the Strategic Review.

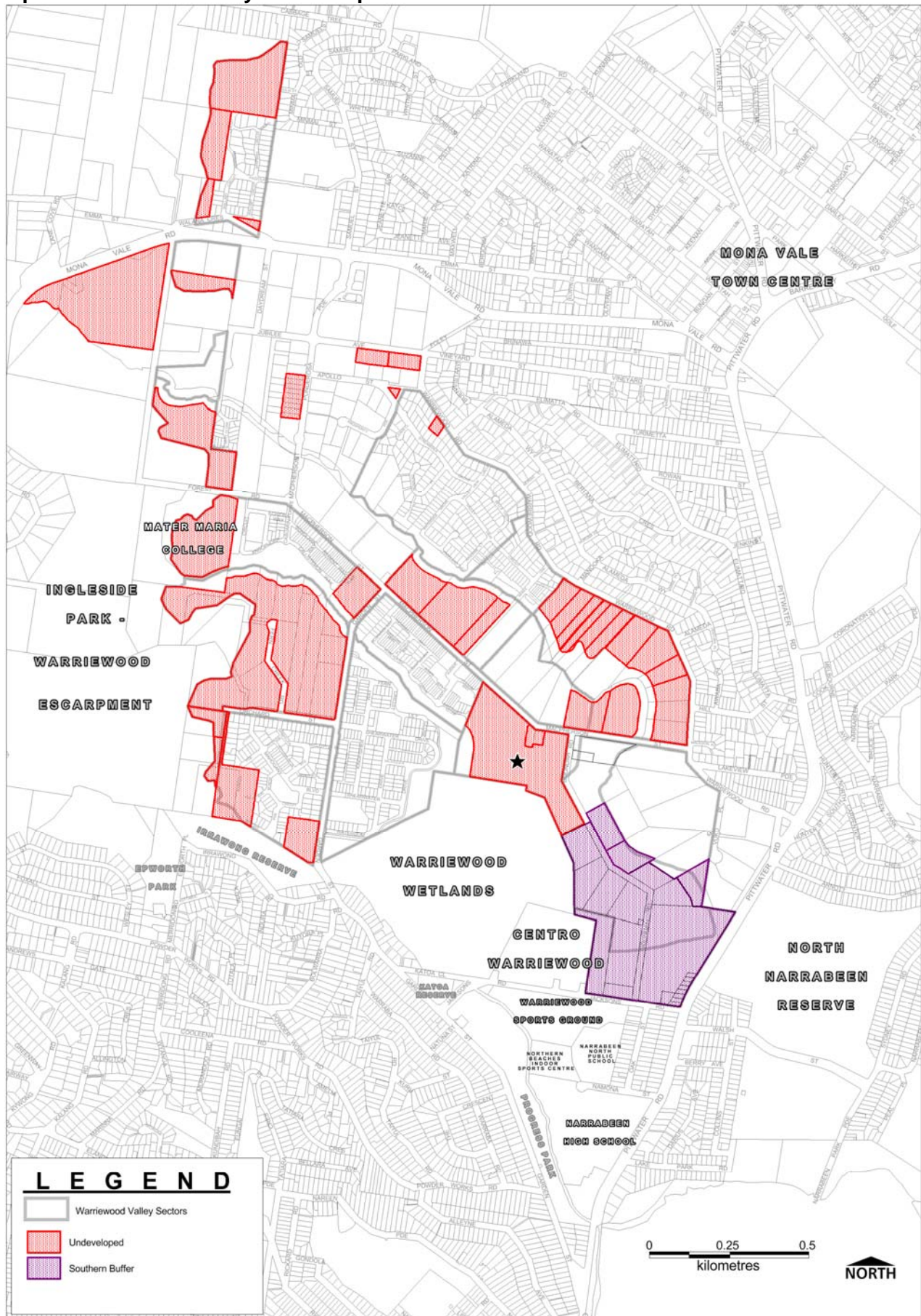
The Southern Buffer was also identified for review.

The land forming the study area for the Strategic Review and identified for review is depicted in Map 2.

Buffer 3a (known as 14-18 Boondah Road) was subsequently removed from the lands to be reviewed following the Land and Environment Court's judgment on 12 September 2011.

It should be noted that whilst the study area is defined as per Map 2, the impacts on areas beyond must also be considered. Likewise, infrastructure provision for development within the Valley is not necessarily required to be provided within the study area.

Map 2: Warriewood Valley Undeveloped Lands



★ Buffer 3a (known as 14-18 Boondah Road) subsequently removed following Land & Environment Court's judgment on 12 September 2011

5.5 Determination of land capability

5.5.1 Testing land for potential dwelling increase

For potential density increase, the first step in identifying land parcels capable of accommodating a potential density increase was a land capability assessment.

This exercise identified the land to be tested at the medium density range (i.e. 25 - 60 dwellings per hectare as defined by the Metropolitan Plan) in accordance with the PAC's determination.

The land capability assessment was a three step 'sieve' process based on Council's capability mapping (see Chapter 6 and Appendix 2) and the outcomes of the independent Hydrology Study. The undeveloped land to be the subject of the sieve process is shown in Map 2.

Step 1

A preliminary review of land parcels was undertaken. Only those sectors identified as 'Designated Residential Sectors' pursuant to Table 17 and Figure 5 of the 2010 Planning Framework were identified for further investigation.

Step 2

The second step of the sieve exercise involved a land capability assessment. Any sector with significant environmental constraints (50% or more of the sector contained land classified 4 or 5) based on the capability mapping undertaken for the Local Planning Strategy (this is discussed in more detail in Chapter 6) was then excluded from further investigation.

The outcomes of Step 2 of the sieve exercise are depicted in Map 4 and detailed in Chapter 6 and Appendix 3.

Step 3

The outcomes of the Hydrology Study were then applied to the sectors identified at Step 2. The outcome of Step 3 is depicted in Map 7.

The final outcome of sieve process, after Step 1, 2 and 3 had been applied, is detailed in Map 8.

5.5.2 Testing land in the Southern Buffer

A land capability assessment was also carried out for lands in the Southern Buffer, utilising Council's capability mapping (See Map 3) overlaid by the outcomes of the Hydrology Study (see Chapter 7.1).

5.6 Independent Consultant Studies

Independent studies on hydrology, urban design, strategic transport and economic feasibility were commissioned to inform the Strategic Review.

As discussed above, the Hydrology Study assessed the flood regime applicable to Warriewood Valley to ascertain land capability and suitability for future development in terms of flooding, water management, and impacts imposed by climate change and

sea level rise. The Hydrology Study also estimated cut/fill balance, the likely impact and management of the flood regime and recommended land uses consistent with a developable land classification which, in turn, informed the Urban Design Study. The outcomes of the Hydrology Study were used in Step 3 of the land capability assessment process.

The Urban Design Study identified the parcels of land suitable for an increased dwelling density by analysing the potential building height and scale of the urban form that may result from any increase in density.

A concept plan and design principles were also developed for a new mixed-use precinct in the Southern Buffer.

The Strategic Transport Study assessed the transport implications of the potential increase in dwelling density and undertook a high level analysis of the likely transport implications of a new mixed-use precinct in the Southern Buffer.

The Economic Feasibility Study assessed the economic viability of a range of residential densities within Warriewood Valley and undertook a high level economic feasibility analysis of a new mixed-use precinct in the Southern Buffer; providing advice on the likely financial viability of these development opportunities in Warriewood Valley.

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Assessing Land Capability

Making wise land use planning decisions by mapping the area's environmental characteristics



Photo by: Amanda Clarke 2011

6.0 Assessing Land Capability

Land capability mapping used geo-spatial tools to identify opportunities and constraints of an area for the Strategic Review.

6.1 Process for Assessing Land Capability

The process builds geographical layers to produce a visual representation of areas with lower or higher levels of capability.

Seventeen individual base map layers have been prepared for the Pittwater LGA for the following characteristics:

- Biodiversity
- Slope
- Proximity to watercourses
- Proximity to ridgelines
- Foreshores and waterbodies
- Cultural (heritage value)
- Climate change including sea level rise
- Bushfire
- Flooding
- Geotechnical
- Coastal processes
- Estuarine processes
- Acid sulphate soils
- Proximity to centres
- Proximity to public transport links and road network capacity
- Sewer availability
- Water availability

Climate change and sea level rise, and flooding, were not considered during Step 2 of the sieve process as these were separately given detailed consideration in the Hydrology Study. Further, Step 2 did not consider proximity to centres and to public transport links as these issues will not significantly affect the capability of the land.

Each layer represents an environmental, economic or social characteristic that influences land use allocation decisions. The map layers also identify issues that should be addressed in the future management of the land.

The map layers have been divided into 3 classes. More detail on the classifications for each base map is included in Appendix 2:

- **Class A: Low restriction to intensification of development.**
Existing development may require generic management prescriptions to achieve sustainable land use. Intensification of development must be confined to defined targets to maintain sustainability.

- **Class B: Moderate restriction to intensification of development.**
Existing development forms require generic management prescriptions to achieve sustainable land use. Any intensification needs site specific investigation and must address constraints.
- **Class C: Significant restriction to intensification of land use.**
Existing development forms require site specific and detailed management prescription to achieve sustainable land use. Any intensification must fully address each specific constraint.

As an example, the slope base map is made up of the following classes:

A	Land with slope less than 15% - suitable for development/intensification
B	Land with slope between 15% and 25% - moderate constraint to development intensification
C	Land with slope greater than 25% - restricted potential for development/intensification

The map layers were combined into a single layer to form a composite capability map, which categorised the land as follows:

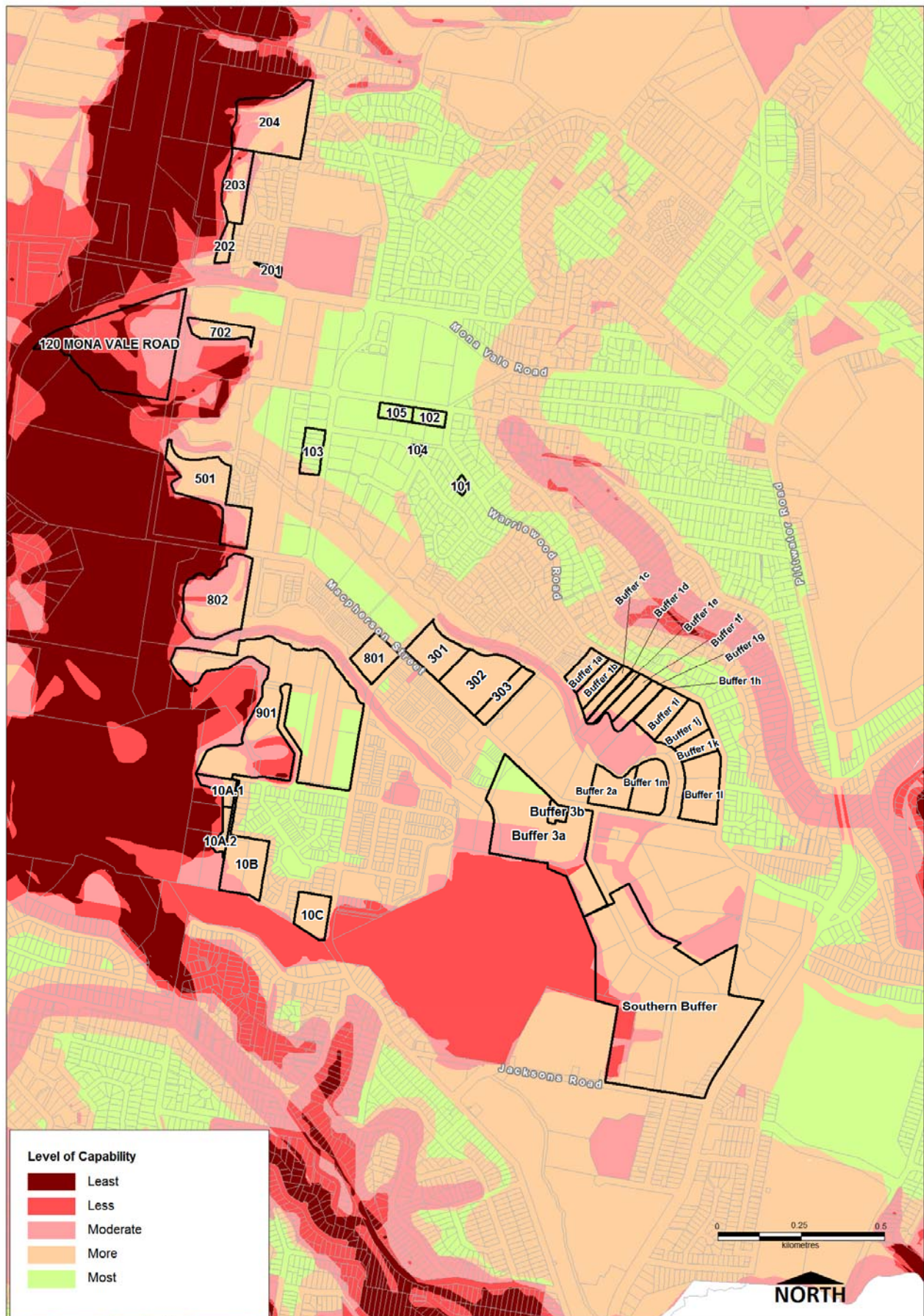
Table 1: Land Capability Classifications

Map Classification	Level of Capability	Categories from composite maps
1	Most	All As: areas of land that were mapped as suitable for development or intensification
2	More	All A and B: areas of land that were mapped as having at least one moderate constraint to development or intensification
3	Moderate	Only have one instance of C: areas of land that were mapped as having one severe constraint to development or intensification
4	Less	Two instances of C: areas of land that were mapped as having two instances of severe constraint to development or intensification
5	Least	Three or more instances of C: areas of land that were mapped as having three or more severe constraints to development or intensification

The composite capability map produced for the Strategic Review is at Map 3.

Map 3: Composite Capability Map

(excluding Climate Change and Sea Level Rise; Flooding; Proximity to Centres; and Proximity to Public Transport map layers)



6.2 Process of Assessing Land Capability

The land capability assessment was a three step 'sieve' process based on Council's capability mapping (for further detail see and Appendix 2) and the outcomes of the independent Hydrology Study. The undeveloped land to be the subject of the sieve process is shown in Map 2.

Step 1

A preliminary review of land parcels was undertaken. Only those sectors identified as 'Designated Residential Sectors' pursuant to Table 17 and Figure 5 of the 2010 Planning Framework were identified for further investigation.

Step 2

The second step of the sieve exercise involved a land capability assessment.

A composite capability map (See Map 3) was utilised to determine the development/intensification capability of the land considered 'undeveloped' and land within the Southern Buffer. Any sector with significant environmental constraints (50% or more of the sector contained land classified 4 or 5) was then excluded from further investigation.

The outcome of Step 1 and 2 of the 'sieve' process is depicted in Map 4 and detailed in Appendix 3.

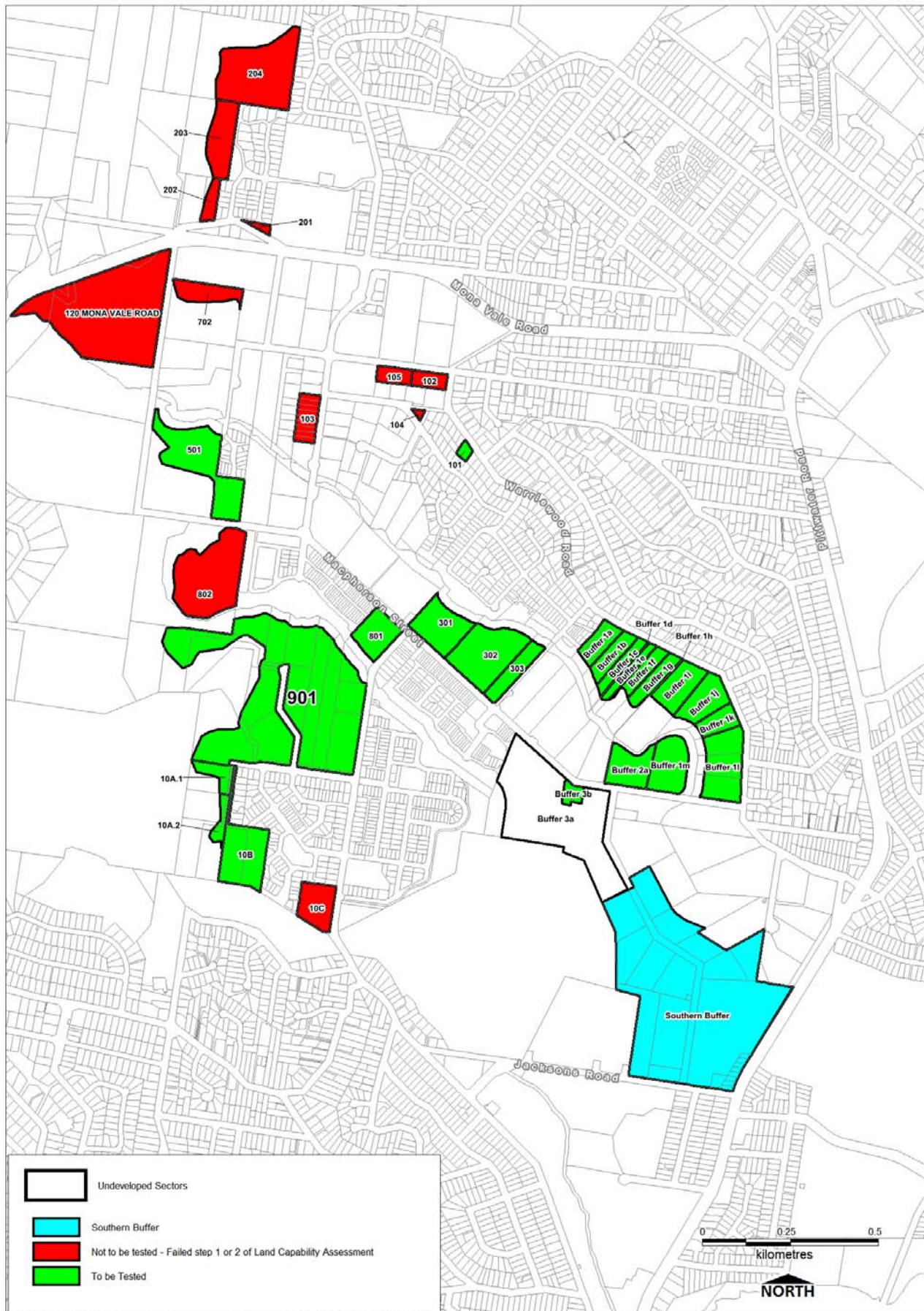
Step 3

Step 3 of the 'sieve' process involved applying the Developable Land Classification, derived from the Hydrology Study (detailed in Chapter 7), to the outcomes of Step 1 and 2 of the 'sieve'.

The final outcome of sieve process, after Step 1, 2 and 3 had been applied, is depicted in Map 8.

Map 4: Outcome of Step 1 & 2 of the 'Sieve Process' - Land Capability Map

(excluding Climate Change and Sea Level Rise; Flooding; Proximity to Centres; and Proximity to Public Transport map layers)



6.3 Sectors not considered further following Step 1 and 2 of the 'sieve' process

Step 1 and 2 of the sieve process identified sectors not required to be considered for development beyond their current classification due to:

1. Existing environmental constraints applying the sector.
2. Not being a designated residential sector under the 2010 Planning Framework, including Sector B and Sector 15 (now known as the Southern Buffer).
3. Not being identified as undeveloped under the 2010 Framework.

120 Mona Vale Road was the only sector not identified for further testing due to the existing environmental constraints. Opportunities for development on this site are limited due to bushfire, geotechnical and biodiversity constraints.

The Anglican Retirement Village at 6-14 Macpherson Street requested inclusion in the study area. However this site was not considered undeveloped under the *2010 Planning Framework* given that development has substantially commenced on this site, with Stages 1 and 2 of the retirement village complex already completed. It was therefore excluded from the Strategic Review.

The sectors not considered for increased development are identified in red in Map 4. Landowners in these sectors will need to lodge a separate rezoning application accompanied by environmental studies if they wish to rezone.

Key Outcomes

Residential

- As a result of Step 1 and 2 of the sieve process, the following sectors were identified for testing potential increase in dwelling density:

Sector ID	Property Address	Current Density
101	165-167 Warriewood Road	15/Ha
301	20 Macpherson Street	25/Ha
302	18 Macpherson Street	25/Ha
303	16 Macpherson Street	25/Ha
501	4-8 Forest Road	25/Ha
801	23B Macpherson Street	25/Ha
901	11,12 and 13 (Sector 8); 1,2,4,5,9 & 10 Fern Creek Road; 2,4,6,12 & 14 Orchard Street, 204 & 206 Garden Street, and Orchard St road reserve (2A, 4A, 6A & 8 Orchard Street)	25/Ha
10A.1	115 Orchard Street	15/Ha
10A.2	111, 111a & 113 Orchard Street	15/Ha
10B	109 Orchard Street	15/Ha
Buffer 1a	61 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1b	53 Warriewood Road	25/Ha (15m street frontage @10/Ha)

Key Outcomes

Residential (Continued)

Sector ID	Property Address	Current Density
Buffer 1c	53a Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1d	53b Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1e	53c Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1f	49 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1g	45 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1h	43 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1i	41 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1j	31 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1k	29 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1l	23, 25 & 27 Warriewood Road	25/Ha (15m street frontage @10/Ha)
Buffer 1m	2 Macpherson Street	0 (No allocation)
Buffer 2a	4 Macpherson Street	Design specific (max 20 dwellings)
Buffer 3b	5 & 7 Macpherson Street	25/Ha

These sectors are shown in green, in Map 4.

- The sectors listed in the following Table will not be tested as these sectors failed to satisfy Step 1 or 2 of the sieve process (and shown in red in Map 4):

Sector ID	Property Address	Reason for exclusion
102	185 Warriewood Road	Industrial land use designation - Already zoned 4(b)
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	Industrial land use designation - Already zoned 4(b)
104	3 Harris Street & 16 Apollo Street	Industrial land use designation - Already zoned 4(b)
105	15 Jubilee Avenue	Industrial land use designation - Already zoned 4(b)
201	4 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework

Key Outcomes

Residential (Continued)

Sector ID	Property Address	Reason for exclusion
202	14 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework
203	3 Harrier Place	Not identified as undeveloped in 2010 Planning Framework
204	79 Cabbage Tree Road (Aveo Peninsular Gardens Retirement Village)	Not identified as undeveloped in 2010 Planning Framework
702	10 Jubilee Avenue	Portion of site designated Industrial as part of Sector 7 however majority of site not in 2010 Planning Framework. Still zoned 1(b) – not zoned with majority of Sector 7 lands (now under development).
802	5 Forest Road (Mater Maria School)	Not identified as undeveloped in 2010 Planning Framework
10C	194 Garden Street (Seaview Assisted Living Apartments)	Not identified as undeveloped in 2010 Planning Framework
120 MV	120 Mona Vale Road	Significant environmental constraints

- The sectors above will retain their current zoning.
- The onus is on landowners of these sectors to seek individual rezoning applications, accompanied by supporting documentation. Landowners will need to demonstrate how sustainable development can be achieved given the circumstances/constraints relevant to their land.

Southern Buffer Area

- Sectors shown in blue in Map 4 represent the Southern Buffer. A land capability assessment was applied to this land prior to examining potential scope of development as a mixed-use precinct.

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Outcomes of Consultants' Studies



Photo by: Amanda Clarke 2011

Chapter 7

7.0 Outcomes of Consultants' Studies

7.1 Hydrology Study

The Hydrology Study was undertaken by Cardno (NSW/ACT) Pty Ltd (Cardno). The outcomes of Cardno's report must be read in conjunction with the other three consultants' studies.

The Hydrology Study needed to:

- Analyse and detail the extent of flooding across Warriewood Valley
- Outline options for flood evacuation
- Recommend an approach to cutting and filling various land parcels to provide a building platform above the flood planning level and to assist in the conveyance of flood water.

The Hydrology Study provided preliminary recommendations for on-site detention on various sites and recommendations for water quality treatment. It provides a high level assessment of flooding in Warriewood Valley; further assessment is needed, particularly once the revised Narrabeen Lagoon Flooding Study is complete.

A desktop study of existing published information focused on the *Warriewood Valley Flood Study*,⁴ the *Warriewood Valley Flood Study Addendum*,⁵ and the *Narrabeen Lagoon Flood Study*.⁶ Cardno reviewed and updated these documents to reflect the impacts of climate change and new survey data.

In line with NSW Government guidelines,⁷ the Hydrology Study adopts the following sea level rise assumptions when assessing the impacts of climate change:

- Sea level rise of 0.4m by 2050
- Sea level rise of 0.9m by 2100.

Also in line with government policy,⁸ the Hydrology Study assumes a 30% increase in rainfall intensity as an impact of climate change when considering the impacts of the 1% Annual Exceedance Probability event (AEP). Only sea level rise is considered for the probable maximum flood event (PMF) as there is insufficient evidence to assume increased rainfall intensity with regard to such a rare event.

The Hydrology Study produced two maps showing the depth of the 1% AEP event (plus climate change) and the PMF flood event (plus climate change).

⁴ Cardno Lawson Treloar (2005) *Warriewood Valley Flood Study*, prepared for Pittwater Council, Sydney.

⁵ Cardno Lawson Treloar (2005) *Warriewood Valley Flood Study – Addendum 1*, prepared for Pittwater Council, Sydney.

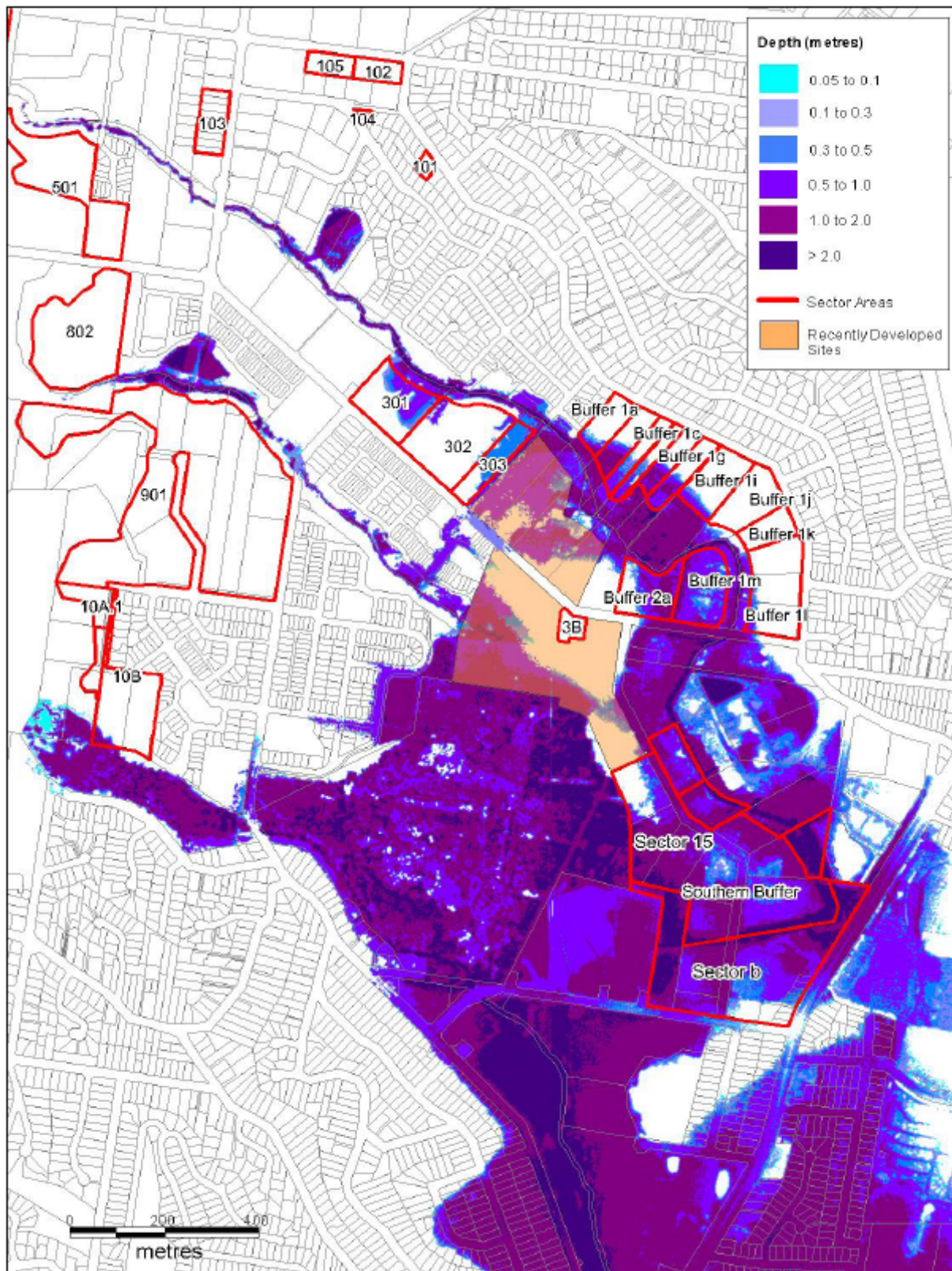
⁶ Public Works Department (1990) *Narrabeen Lagoon Flood Study*, Public Works Department, Sydney.

⁷ Department of Planning (2010) *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*, NSW Government.

⁸ Department of Environment and Climate Change (2007) *Practical Considerations of Climate Change*, NSW Government.

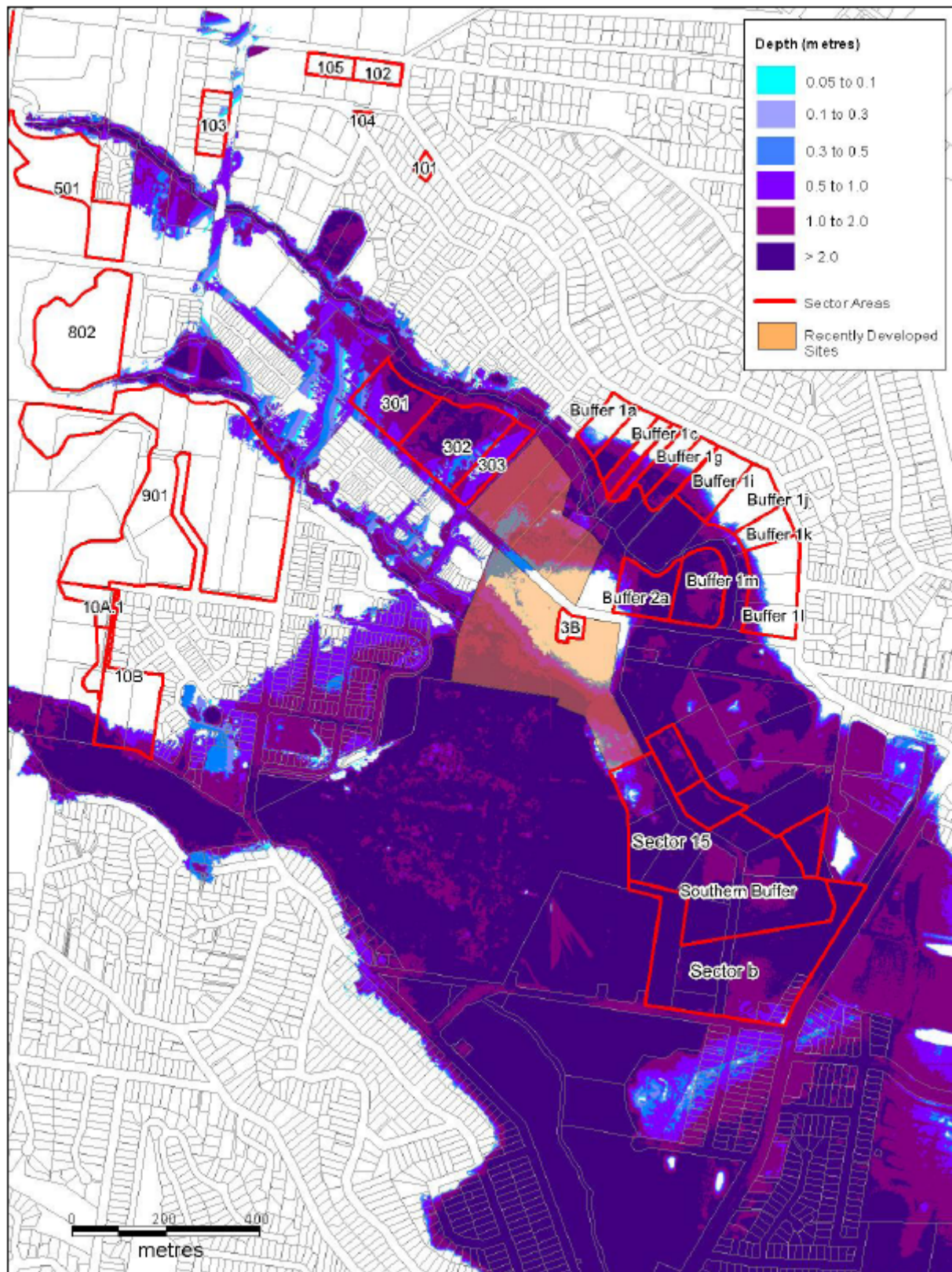
Map 5: 1% AEP Event Plus Climate Change Peak Depth

Source: Cardno (NSW/ACT) (2011) *Warriewood Valley Strategic Review Hydrology Study*



Map 6: PMF Plus Climate Change Peak Depth

Source: Cardno (NSW/ACT (2011) *Warriewood Valley Strategic Review Hydrology Study*



7.1.1 Residential Development

A developable land classification was applied to each sector identified in Table 2 and Map 7 and recommended land uses for categories A-F. Residential sites, including those in the Southern Buffer land, were assessed for:

- Expected flood behaviour
- Cut and fill required to provide a building area above the 1% AEP plus climate change level
- Emergency evacuation routes.

The Hydrology Study mapped the extent of flooding based on a 1% AEP and PMF event for each residential area affected by flooding; the developable land area above the flood planning level; and the area that would need to be cut to provide the fill for the developable land area. The Study noted that most development in Pittwater requires a flood planning level of the 1% AEP level plus a freeboard of 500mm.

7.1.2 Development of the Southern Buffer

Flooding in the low lying Southern Buffer depends on backwater flooding from the Warriewood Wetlands and the Narrabeen Lagoon. Under existing conditions, flood depths exceed 1 metre across most of the Southern Buffer in a 1% AEP event and flood events more prolonged.

Consequently, the Hydrology Study recommended a significant amount of cut and fill to create two developable areas, noting that the central areas are not suitable for development due to flood depth and flow path requirements. The developable areas are:

- 3.66 hectares in the southern portion of the sector at the corner of Pittwater Road and Jacksons Road
- 0.87 hectares in the northern portion of the sector adjoining Boondah Road

To address the issue of long duration flooding the Study recommended that, should development proceed in the Southern Buffer:

- Pittwater Road and Jacksons Road be raised to a suitable level to provide sufficient evacuation time
- A flood warning system be installed
- Only commercial and industrial land uses be permitted in the southern portion of the sector
- Residential uses may be possible in the northern portion of the sector.

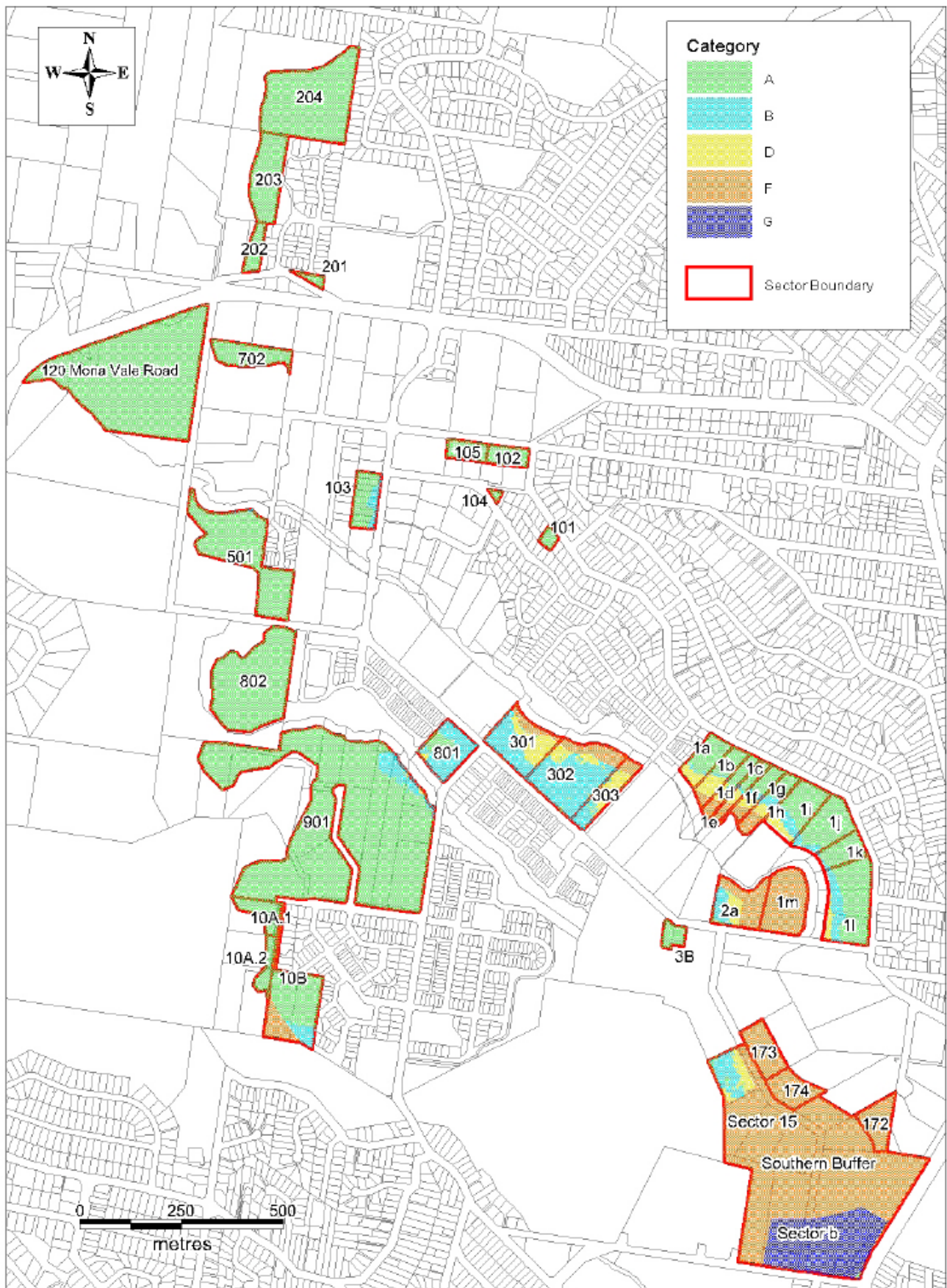
Table 2: Developable Land Categories (to be read in conjunction with Map 7)

Category A	<ul style="list-style-type: none"> Land above the PMF plus Climate Change May be subject to overland flow Additional criteria incorporated during this assessment: land allows for flood evacuation with minimum risk to life, and no creation of flood entrapment or flood isolation
Category B	<ul style="list-style-type: none"> Land between the Flood Planning Level plus Climate Change, and PMF plus Climate Change No increase to peak flows/levels upstream and downstream of site Floor levels above Flood Planning Level Additional criteria incorporated during this assessment: land allows for flood evacuation with minimum risk to life, and no creation of flood entrapment or flood isolation
Category C	<ul style="list-style-type: none"> Land between the Flood Planning Level plus Climate Change, and PMF plus Climate Change No increase to peak flows/levels upstream and downstream of site Floor levels above Flood Planning Level Additional criteria incorporated during this assessment: land allows for flood evacuation with minimum risk to life, and no creation of flood entrapment or flood isolation Where the <i>Warriewood Valley Water Management Specification</i> does not apply
Category D	<ul style="list-style-type: none"> Land below the Flood Planning Level plus Climate Change No increase to peak flows/levels upstream and downstream of site Floor levels above Flood Planning Level Additional criteria incorporated during this assessment: land allows for flood evacuation with minimum risk to life, and no creation of flood entrapment or flood isolation
Category E	<ul style="list-style-type: none"> Land below the Flood Planning Level plus Climate Change No increase to peak flows/levels upstream and downstream of site Floor levels above Flood Planning Level Additional criteria incorporated during this assessment: land allows for flood evacuation with minimum risk to life, and no creation of flood entrapment or flood isolation Applies where the <i>Warriewood Valley Water Management Specification</i> does not apply
Category F	<ul style="list-style-type: none"> Land below the PMF plus Climate Change Additional criteria incorporated during this assessment: Risk to life as a result of flood risk including unsafe flood evacuation, no flood warning is available, flood isolation/entrapment (beyond short durations) or vertical refuge is created, or Flood impacts off-site
Category G	<ul style="list-style-type: none"> Land below the Flood Planning Level plus Climate Change No increase to peak flows/levels upstream and downstream of site Floor levels above Flood Planning Level Additional criteria incorporated during this assessment: land allows for minimum risk to life through flood evacuation, or implementation of a flood warning system

Note: The entire Study Area is within the Warriewood Valley Water Management Specification area therefore none of the Study Area is classified Category C or E.

Map 7: Developable Land Classification (to be read in conjunction with Table 2)

Source: Cardno (NSW/ACT) (2011) *Warriewood Valley Strategic Review Hydrology Study*



7.1.3 Final Step of Land Capability Assessment

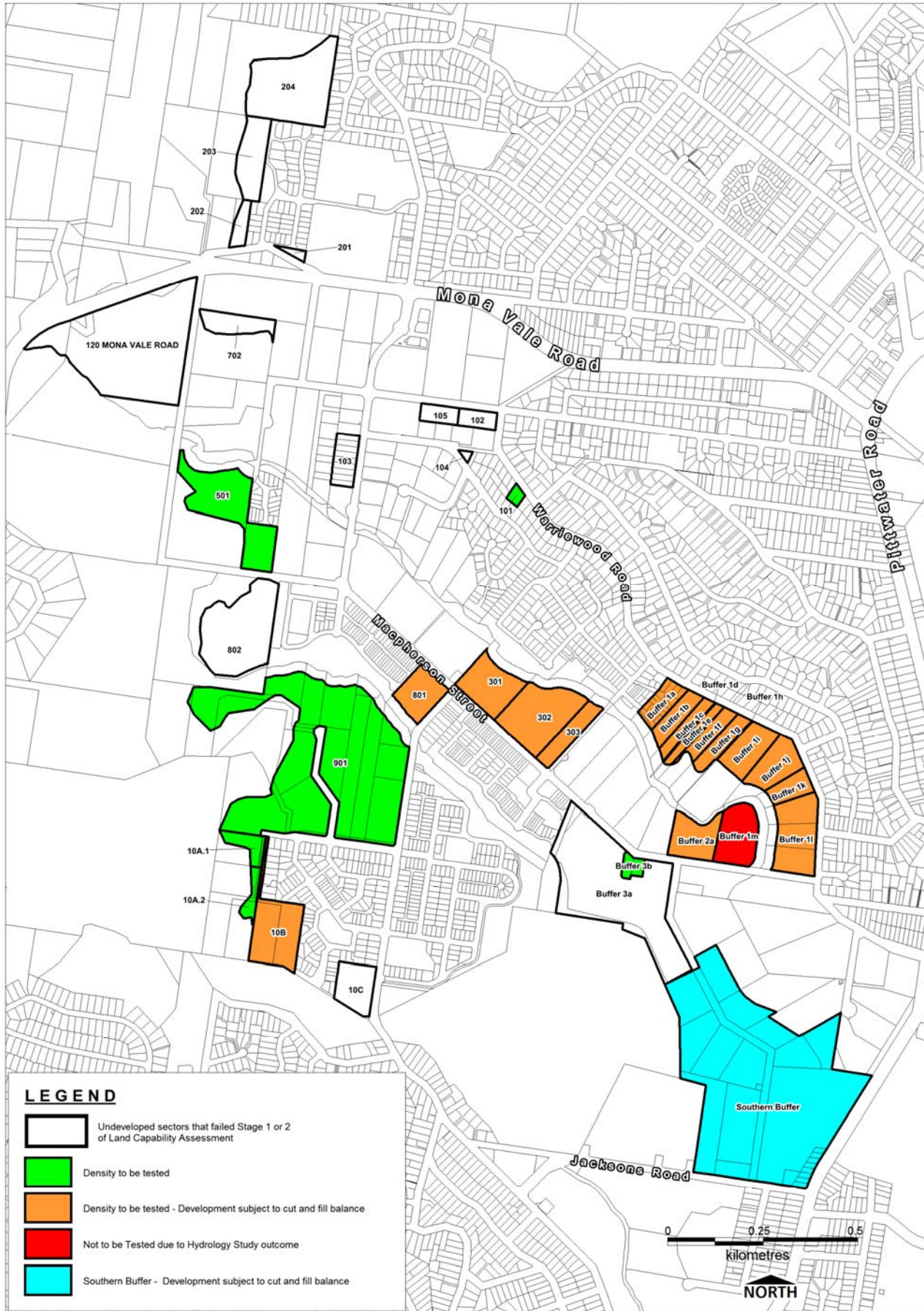
The Developable Land Classification Map (see Map 7) reflected land capability in terms of flooding, water management, and impacts imposed by climate change and sea level rise and should be read in conjunction with Table 2: Developable Land Categories.

The outcome of the Developable Land Classification combined with the outcomes of the Step 1 and 2 of the sieve process (see Map 4) is depicted in Map 8, which identifies sites to be tested for potential density increase.

The Developable Land Classification identifies significant flood constraints which affect the whole of Buffer 1M. Buffer 1M is not capable of development on its own and therefore is not subject to testing for potential density increase.

In regard to the Southern Buffer, with the exception of a small island in the north-west and a larger island in the south-west, the Developable Land Classification identifies large portions of the sector as significantly flood affected and not capable of development.

Map 8: Final Outcome of Land Capability Mapping and Hydrology Study



7.1.4 Flood Emergency Response Planning

The Hydrology Study identified two options for emergency response during extreme flooding events:

- 'Shelter-in-Place' - residents shelter on their property in areas above the PMF
- 'Evacuation' - residents are evacuated using private transport or emergency services.

The assessment of these options considered the acceptable period of time for people to remain isolated on their property during an extreme flood event.

The Hydrology Study recommended flood events up to the level of a PMF event should not allow 'shelter-in-place' if the isolation occurs for longer than six hours. However, there are no standards available to define a suitable time for 'shelter in place for flash flooding or otherwise in NSW.

The Hydrology Study mapped evacuation routes and noted that most of Warriewood Valley would be able to evacuate along Ponderosa Parade in a ARI flood event, as shown in Map 9. Map 9 also indicates that, apart from sectors fronting Warriewood Road, PMF events would not allow for flood free evacuation for all other sectors under consideration.

The existing population within Warriewood Valley would also be affected by a PMF event and could use Macpherson Street East as an alternate flood evacuation route.

The Hydrology Study recommends that Jacksons Road and Pittwater Road (between the intersection of Jacksons Road and Warriewood Road) be raised to a suitable level to provide sufficient evacuation time for the southern portion of the Southern Buffer in a PMF event. Alternatively, a flood warning system could allow evacuation of the site prior to the access roads being inundated, though some raising of Pittwater Road is still likely to be required.

An upgrade of Pittwater Road and Macpherson Street East would also provide evacuation options to benefits to a significant portion of the Pittwater LGA.

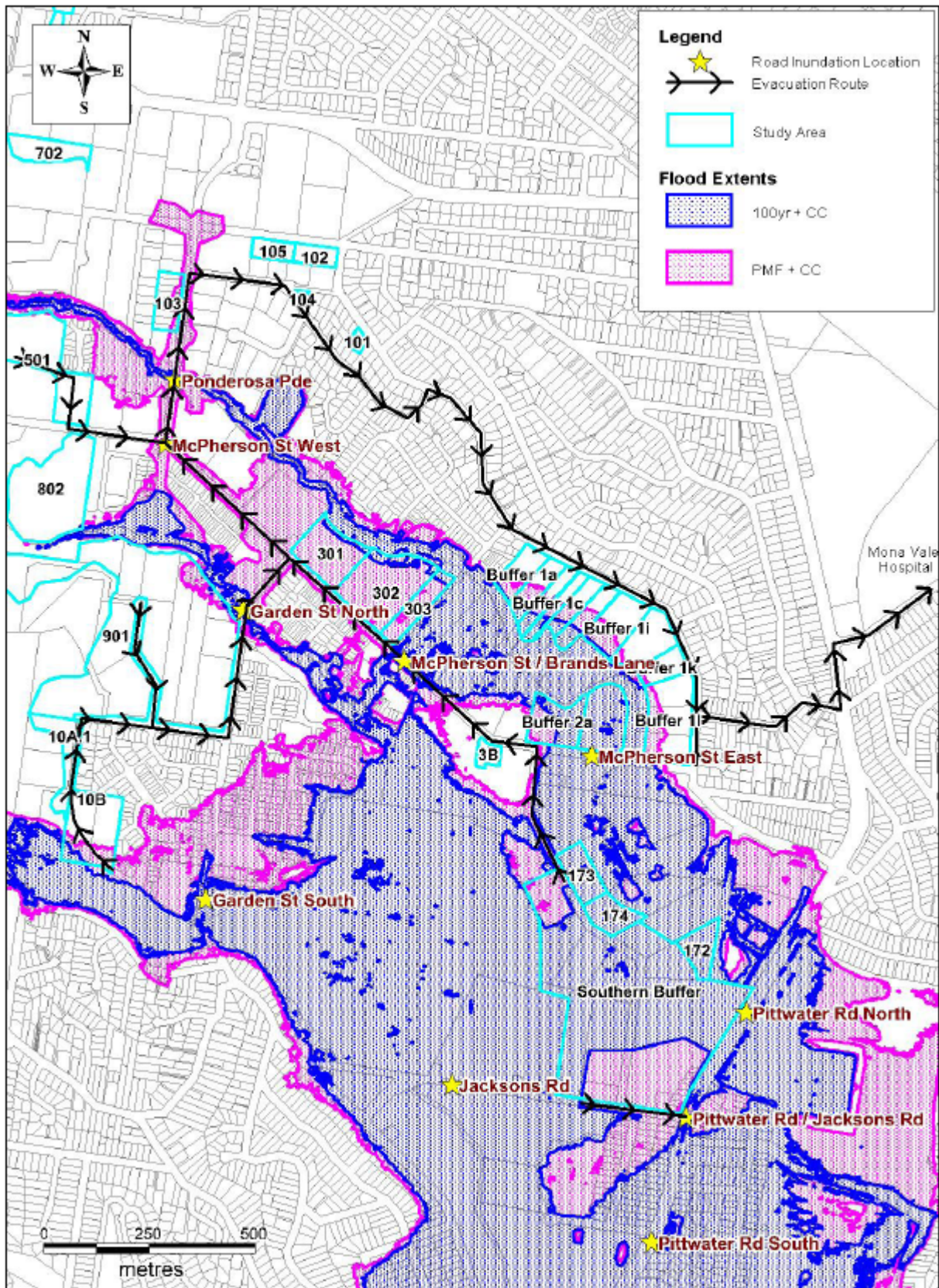
The Hydrology Study recommends any flood evacuation response approach be developed in conjunction with the NSW State Emergency Service (NSWSES), stating:

"It would be recommended that this approach [evacuation and planned flood isolation responses] be discussed in consultation with the SES, as it will be important to gain their acceptance of the approach as the lead combat agency for floods."⁹

⁹ Cardno (NSW/ACT) Pty Ltd (2011) *Warriewood Valley Strategic Review Hydrology Study* 29.

Map 9: Existing Evacuation Routes to Mona Vale Hospital

Source: Cardno (NSW/ACT) (2011) *Warriewood Valley Strategic Review Hydrology Study*



Note: CC refers to Climate Change

7.1.5 NSW State Emergency Service Emergency Flood Evacuation Policy

NSWSES recommends evacuation as the only flood emergency response method, acknowledging this may not be practical in a flash flood event.

Strategic planning investigations of an area, that particularly examine future development options, take into account flood events up to the 1% AEP event. Conversely, flood emergency response planning considers flood events up to the PMF event, above the 1% AEP event.

As a result of the NSWSES position, the Department is undertaking an intra-government study of flood evacuation management. These investigations are exploring the potential for a consistent approach with regard to flood evacuation in flash flood events, with respect to urban development in NSW.

The results of this study may be forthcoming in 2013. However, it should be noted that the timing and outcomes of these investigations will not delay the progress of any future planning proposals in the Warriewood Valley.

Key Outcomes

Residential

- The Hydrology Study determined the following sectors to have no development potential (shown in red on Map 8):

Sector ID	Property Address	Reason
Buffer 1m	2 Macpherson Street	Category F in Developable Land Category

- The following sectors are flood affected, have no safe access for evacuation and failed to satisfy Step 1 of the sieve process.

Sector ID	Property Address	Reason for Failure (in Step 1)
10C	194 Garden Street (Seaview Assisted Living Apartments)	Not identified as undeveloped in 2010 Planning Framework

- The following sectors are determined to have no flood affectation, may be subject to cut and fill requirements, and safe access for evacuation in the 1% AEP plus climate change event. These sectors however, failed to satisfy Step 1 or 2 of the sieve process:

Sector ID	Property Address	Reason for Exclusion
102	185 Warriewood Road	Industrial land use designation - Already zoned 4(b)
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c & 16a Ponderosa Parade	Industrial land use designation - Already zoned 4(b)
104	3 Harris Street and 16 Apollo Street	Industrial land use designation - Already zoned 4(b)
105	15 Jubilee Avenue	Industrial land use designation - Already zoned 4(b)

Key Outcomes (Continued)**Residential (Continued)**

Sector ID	Property Address	Reason for Exclusion
201	4 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework
202	14 Walana Crescent	Not identified as undeveloped in 2010 Planning Framework
203	3 Harrier Place	Not identified as undeveloped in 2010 Planning Framework
204	79 Cabbage Tree Road (Aveo Peninsular Gardens Retirement Village)	Not identified as undeveloped in 2010 Planning Framework
702	10 Jubilee Avenue	Portion of site designated Industrial as part of Sector 7 however majority of site not in 2010 Planning Framework. Still zoned 1(b) – not zoned with majority of Sector 7 lands (now under construction).
802	5 Forest Road (Mater Maria School)	Not identified as undeveloped in 2010 Planning Framework
120MV	120 Mona Vale Road	Significant environmental constraints

- The sectors listed below are determined to have no flood affectation and have safe access for evacuation in a PMF plus climate change event.

Sector ID	Property Address	Safe Evacuation Route
101	165-167 Warriewood Road (residue lot in Sector 1)	Warriewood Rd (East) – Hill Rd

- The sectors listed below have flood affectation that may be resolved by cut and fill requirements, and has safe access for evacuation in a PMF plus climate change event.

Sector ID	Property Address	Safe Evacuation Route
Buffer 1a	61 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1b	53 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1c	53b Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1d	53b Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1e	53c Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1f	49 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1g	45 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1h	43 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1i	41 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1j	31 Warriewood Road	Warriewood Rd (East) – Hill Rd

Key Outcomes (Continued)

Residential (Continued)

Sector ID	Property Address	Safe Evacuation Route
Buffer 1k	29 Warriewood Road	Warriewood Rd (East) – Hill Rd
Buffer 1l	23, 25 & 27 Warriewood Road	Hill Road

- The sectors listed in the following Table are flood affected, require cut and fill and has no safe access for evacuation in PMF plus climate change (in long duration flood).

Sector ID	Property Address	Required Access for Evacuation
301	20 Macpherson Street	Upgrade of Macpherson Street to satisfactory level
302	18 Macpherson Street	Upgrade of Macpherson Street to satisfactory level
303	16 Macpherson Street	Upgrade of Macpherson Street to satisfactory level
501	4-8 Forest Road	Upgrade of Ponderosa Parade to satisfactory level
801	23B Macpherson Street	Upgrade of Macpherson Street to satisfactory level
901 A to F	11,12 and 13 (Sector 8); 1,2,4,5,9 & 10 Fern Creek Road; 2,4,6,12 & 14 Orchard Street, 204 & 206 Garden Street, and Orchard St road reserve (2A, 4A, 6A & 8 Orchard Street)	Upgrade of Garden St (North) to satisfactory level
10A.1	115 Orchard Street	Upgrade of Garden St (North) to satisfactory level
10A.2	111, 111a & 113 Orchard Street	Upgrade of Garden St (North) to satisfactory level
10B	109 Orchard Street	Upgrade of Garden St (North) to satisfactory level
Buffer 2a	4 Macpherson Street	Upgrade of Macpherson Street (East)
Buffer 3b	5 & 7 Macpherson Street	Upgrade of Macpherson Street (East)

Southern Buffer Area

- For development to occur in the Southern Buffer, the Hydrology Study recommends significant cut and fill to create two developable sites: one in the northern portion and the other in the southern portion of the sector. The Hydrology Study recommends any development be confined to these two sites. Flood evacuation will need to be further considered.

Key Outcomes (Continued)***Southern Buffer Area (Continued)***

- The Hydrology Study recommends that residential development in the northern site may be possible, while development in the southern site should be restricted to commercial and industrial land uses. Active and passive open space are the only land uses recommended by the Study for the remainder of the Southern Buffer.
- To allow development in the Southern Buffer to occur, the Study recommends Pittwater Road and Jacksons Road should be raised to a suitable level to provide sufficient evacuation time.
- To provide safe access for evacuation Boondah Road (north) will need to be raised to a suitable level.

Flood Emergency Response

- The Hydrology Study has recommended that planned flood isolation (i.e. 'shelter-in-place') not be allowed in situations where isolation occurs for longer than six hours.
- NSWSES have advised that evacuation is the only primary flood emergency response method. This raises concerns regarding planned flood isolation as an emergency response method.
- The Department is currently undertaking an intra-government review of its flood evacuation policy position. This study and any revised policy are expected to be forthcoming in 2013.

7.2 Urban Design Study

The Warriewood Valley Urban Design Study was prepared by HBO+EMTB Urban and Landscape Design Pty Ltd (HBO+EMTB).

The Urban Design Study aimed to determine the best urban design outcome for the undeveloped residential land throughout Warriewood Valley and the Southern Buffer.

Methodology involved an initial examination of the constraints and opportunities to development, including scale and form of existing development, topography, natural features, biodiversity, flooding and bushfire and the visual impact of taller buildings.

7.2.1 Residential Development

A concept diagram was prepared for each identified residential site, showing the preferred built form and road layouts. Site amalgamations have been assumed.

Sub-sectors 901D and Buffer 10A.1 and 10A.2 were not recommended for residential development due to existing environmental constraints affecting the land. Sub-sector 901E was also not recommended for residential development, instead to be retained as a battle-axe entry access.

Table 3 summarises the findings for each site or amalgamated site (as shaded). For those sectors shaded in Table 3, the density is contingent upon the amalgamation of the specified sites.

Table 3: Summary of Urban Design Study Outcomes for Residential Sectors

Sector ID	Property Address	Recommended Density (dwellings per hectare)*	Storeys	Dwellings	Additional to 2010 Framework
101	165-167 Warriewood Road	26	2	4	3
301	20-22 Macpherson Street	38	2-3	63	21
302 & 303	Lot 18 & Lot 19 Macpherson Street	37 ⁺	2-3	130 ^{**}	41
501A	4 Forest Road	4	2	4	19
501B	8 Forest Rd	42	2-4	90	
801	23B Macpherson Street	51	2-3	61	42
901A	East of Fern Creek Road	36 ⁺	2-3	263	175
901B	West of Fern Creek Road	39	3	43	
901C & G	West of Fern Creek Road	77 ⁺	4-5	102	
901D	1 Fern Creek Road	Proposed parkland			
901E	12 Orchard Street	Retain as battle-axe entry			
901F	14 Orchard Street	8	2	11	
901H	4 & 5 Fern Creek Road	1	2	1	
10A.1	115 Orchard Street	No development potential due to APZ requirements			-14
10A.2	111, 111a & 113 Orchard Street				
10B	109 Orchard Street	20	2-3	45	17
Buffer 1a	Previously known as 61 Warriewood Road	Not tested - 15 dwellings under construction ⁺⁺			
Buffer 1b, 1c, 1d & 1e	53, 53a, 53b & 53c Warriewood Road	36 ⁺	2-3	66	24
Buffer 1f, 1g & 1h	49, 45, 43 Warriewood Road	55 ⁺	2-3	75	43
Buffer 1i, 1j & 1k	41, 31 & 29 Warriewood Road	53 ⁺	2-3	165	98
Buffer 1l	23, 25 & 27 Warriewood Road	32	2-3	67	24
Buffer 2a (Option 1 & 2)	4 Macpherson Street (Option 2 utilises additional flood storage at 2 Macpherson Street [Buffer 1m])	22/33 ⁺	3	29/43	9/23
Buffer 3b	5 & 7 Macpherson Street	Not tested- Anomaly			0
TOTAL ADDITIONAL DWELLINGS					498/512

* Density calculated on the developable area (site area minus area as identified environmentally sensitive)

⁺ Density contingent upon amalgamation of specified sectors

^{**} Incorrect total shown in Urban Design Study (129 dwellings)

⁺⁺ Sector no longer considered undeveloped. Development substantially commenced onsite in 2011/2012.

7.2.2 Development of the Southern Buffer

Large areas of the Southern Buffer are flood prone and some lands have high biodiversity value. The Urban Design Study proposed earthworks to create two flood-free development sites in the north east and south west corners of the Southern Buffer.

In the north west corner, residential development of a similar scale and form to the adjacent and approved 14-18 Boondah Road development has been proposed for 3-4 storey residential buildings containing 66 dwellings. A new mixed-use centre on the corner of Pittwater Road and Jacksons Road has been proposed in the south west corner.

When considering the most appropriate scale and form of the mixed-use centre, the Urban Design Study considered:

- The perceived need for large floor plate retail in the area
- The perceived need for an urban square/town centre in Warriewood Valley
- The adjacent Warriewood Square and the opportunity to consolidate similar uses in the same area
- The public transport route along Pittwater Road
- The opportunity to provide prime retail frontage to Pittwater Road
- The good vehicular access to Pittwater Road and the opportunity to separate service vehicle access from local traffic
- The ability to locate taller development to the north of the area so as to provide casual surveillance of the proposed open space and also to limit overshadowing to the south.

The Urban Design Study proposed the mixed-use centre could include:

- A mix of land uses such as retail, large floor-plate retail, commercial office space, residential development and community facilities
- Commercial/retail buildings up to 4 storeys with visually active frontages and pedestrian entries on Pittwater Road and Jacksons Road
- Residential buildings up to 6 storeys overlooking the recreation areas to the north
- A public square on the northern side of the centre, lined with small scale retail outlets, restaurants and cafes, which could provide for public gatherings
- A direct pedestrian link to Warriewood Square
- A realignment of Boondah Road
- Integration of pedestrian and bicycle networks around the mixed-use centre into existing networks.

The Urban Design Study included design principles for the future development of a mixed-use centre in the Southern Buffer. These principles have been considered in conjunction with the findings of the other studies and have informed the principles contained in Chapter 8.

Key Outcomes

Residential

- The Urban Design Study recommended a dwelling density range from 1 to 77 dwellings per hectare for amalgamated sectors, and maximum building heights between 2 and 5 storeys.
- The following *individual* sectors were recommended for a higher density:

Sector ID	Property Address	2010 Density	Urban Design Density
101	165-167 Warriewood Road	15/Ha*	26/Ha
301	20 Macpherson Street	25/Ha	38/Ha
501B	8 Forest Road	25/Ha*	42/Ha
801	23B Macpherson Street	25/Ha	51/Ha
10B	109 Orchard Street	15/Ha*	20/Ha
Buffer 1I	23, 25 & 27 Warriewood Road (considered as single parcel in 2010 Planning Framework)	25/Ha**	32/Ha
Buffer 2a (Option 1)	4 Macpherson Street	Design specific (max 20 dwellings)	22/Ha

*Density achieved across the whole sector rather than calculated on individual land parcels

**Density calculated with the first 15m fronting the street at 10/Ha and remainder at 25/Ha

- The following *amalgamated* sectors were recommended for a higher density:

Sector ID	Property Address	2010 Density	Urban Design Density
302 & 303	Lot 18 & Lot 19 Macpherson Street	25/Ha	37
901A	East of Fern Creek Road	25/Ha*	36
901C&G	West of Fern Creek Road	25/Ha*	77
Buffer 1b, 1c, 1d & 1e	53, 53a, 53b & 53c Warriewood Road	25/Ha*	36
Buffer 1f, 1g & 1h	49, 45, 43 Warriewood Road	25/Ha**	55
Buffer 1I, 1j & 1k	41, 31 & 29 Warriewood Road	25/Ha**	53
Buffer 2a (Option 2)	4 Macpherson Street (with additional flood storage utilised at Buffer 1m (2 Macpherson Street))	Design specific (max 20 dwellings)	33

*Density achieved across the whole sector rather than calculated on individual land parcels

**Density calculated with the first 15m fronting the street at 10/Ha and remainder at 25/Ha

Key Outcomes (Continued)

- The Urban Design Study recommended a reduced density for the sectors listed in the following table (compared to the 2010 Planning Framework):

Sector ID	Property Address	2010 Density	Urban Design Density
501A	4 Forest Road (formerly as part of Sector 5)	25/Ha*	4/Ha
901D	1 Fern Creek Road (formerly as part of Sector 901)	25/Ha*	No density recommended**
901E	12 Orchard Street (formerly as part of Sector 901)	25/Ha*	No density recommended***
901F	14 Orchard Street (formerly as part of Sector 901)	25/Ha*	8/Ha
901H	4 & 5 Fern Creek Road (formerly as part of Sector 901)	25/Ha*	1/Ha
10A.1	115 Orchard Street	15/Ha*	No density recommended**
10A.2	111, 111a & 113 Orchard Street	15/Ha*	No density recommended**

* Density achieved across the whole sector rather than calculated on individual land parcels

** No density recommended due to existing environmental constraints

***No density recommended. To be retained as battle-axe entry access

Southern Buffer Area

- Two sites in the north-east and south-west corners of the Southern Buffer were identified as having some limited development potential, given the flood prone nature of the land and the required cut and fill.
- Residential development was identified for the north-west corner and a mixed-use centre was identified for the south-east corner.
- Design principles should guide future development of the Southern Buffer area.

7.3 Strategic Transport Study

The Strategic Transport Study was prepared by AECOM Australia Pty Ltd (AECOM).

The Strategic Transport Study determined traffic impacts of future development scenarios of the undeveloped residential land throughout Warriewood Valley and the Southern Buffer.

The Strategic Transport Study also identified the works required to mitigate any identified impact of development on the road network.

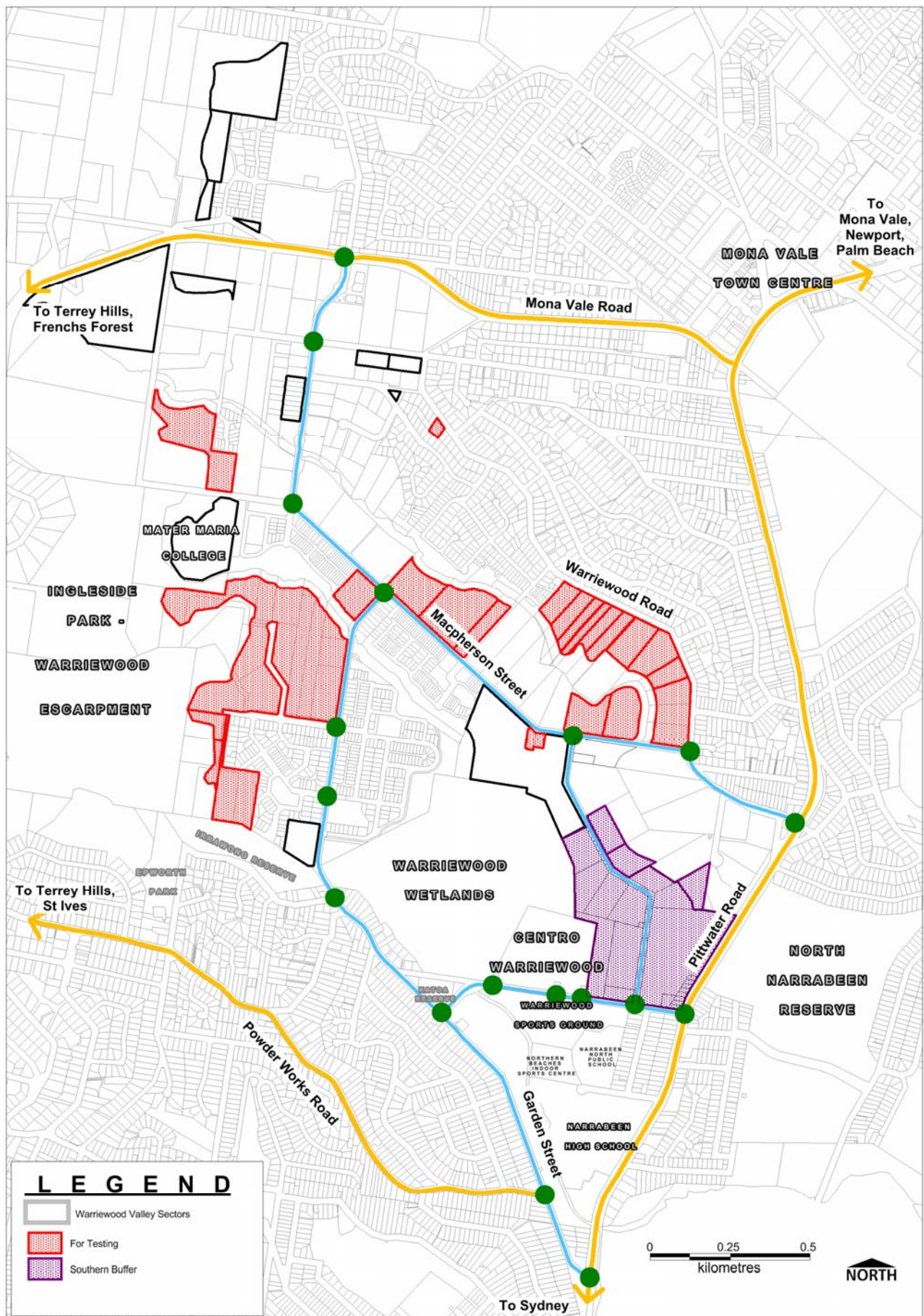
The Study looked at four land use scenarios:

- Scenario 1 – the baseline case which represents the traffic impact of the 2,224 existing, committed and expected dwellings in Warriewood Valley under current controls
- Scenario 2 – a future residential scenario which models the impact of 2,739 dwellings in Warriewood Valley based on existing and committed development and a density of approximately 40 dwellings per hectare on the undeveloped residential land
- Scenario 3 – 2,739 dwellings plus development of the Southern Buffer with a 20,000m² mixed-use centre and 80 additional dwellings
- Scenario 4 – 2,739 dwellings per Scenario 2 plus development of the Southern Buffer with a 60,000m² mixed-use centre and 160 additional dwellings.

The Study details assumptions regarding existing traffic volumes, patterns of travel, proposed road and intersection upgrades and the additional traffic generated by each scenario. It assessed the likely traffic impact of the four scenarios on the local road network and key intersections, shown in Map 10.

Map 10: Intersection Count Locations

Source: AECOM (2011) *Warriewood Valley Strategic Review Transport Study*



7.3.1 Scenario 1

All key intersections operate within capacity and are at an acceptable level of service in the am and the pm peaks. Scenario 1 assumes that the intersection upgrades identified in the *Warriewood Valley Roads Masterplan* (2006) are completed.

7.3.2 Scenario 2

All key intersections (with the exception of the Powder Works Road/Garden Street intersection) operate within capacity and are at acceptable levels of service in the am and pm peaks. The additional 370 peak hour trips generated by Scenario 2 would have a minimal impact on the intersection performance of the arterial and collector road network.

A dedicated right turn bay on the Garden Street northern approach with a clearway operating on the through lane, and the lengthening of the left turn lane on the Garden Street southern approach could address issues with the Powder Works Road/Garden Street intersection. However, this would necessitate the removal of approximately 100 metres of existing parking on both sides of Garden Street approaching the intersection.

7.3.3 Scenario 3

All key intersections (with the exception of the Pittwater Road/Jacksons Road intersection) operate within capacity and are at acceptable levels of service in the am and pm peaks (assuming the mitigation measure proposed for Scenario 2 has been carried out).

High capacity on the right hand turn from Pittwater Road into Jacksons Road in the southbound direction could be mitigated by lengthening the dedicated right hand turn from Pittwater Road from 50 metres to 200 metres.

7.3.4 Scenario 4

All key intersections (with the exception of the Pittwater Road/Jacksons Road intersection) operate within capacity and are at acceptable levels of service in the am and pm peaks (modeling assumes mitigation measures in Scenario 2 and Scenario 3 have been carried out).

Further mitigation measures to the Pittwater Road/Jacksons Road intersection would be required to improve the capacity and performance of the intersection. This includes:

- Addition of a new right turn lane from the Pittwater Road northern approach of approximately 140 metres
- An additional lane on Jacksons Road creating two exit lanes westbound heading from the intersection
- Re-marking the existing eastbound lane configuration of Jacksons Road to create a double right turn lane.

Modeling and diagrams of proposed mitigation measures are contained in the Strategic Transport Study.

The Strategic Transport Study concludes that for each development scenario, assuming proposed upgrades and mitigation measures are undertaken, there are no major traffic constraints to development in Warriewood Valley.

Key Outcomes

- All key intersections (with the exception of the Powder Works Road/Garden Street and Pittwater Road/Jacksons Road intersection) operate within capacity and are at acceptable levels of service in am and pm peaks.
- Mitigation measures are recommended for these intersections to accommodate the proposed increased residential development in Warriewood Valley and proposed development in the Southern Buffer sector.

7.4 Economic Feasibility Study

The Economic Feasibility Study was prepared by Hill PDA Pty Limited (Hill PDA). The objectives of the Economic Feasibility Study were to:

- Provide an economic assessment of the feasibility of several residential density scenarios
- Provide an economic assessment of development scenarios for a mixed-use centre in the Southern Buffer.

7.4.1 Residential Development

Four representative sites across Warriewood Valley were tested at the current permissible densities as well as at the densities proposed by the Urban Design Study.

- Sector 301 (20 Macpherson Street) – current density 26 dwellings per hectare and proposed density 38 dwellings per hectare
- Buffers 1F, 1G and 1H (49, 45, 43 Warriewood Road) – current density 23 dwellings per hectare and proposed density 54 dwellings per hectare
- Sectors 10B (109 Orchard Street) – current density 12.5 dwellings per hectare and proposed density 20 dwellings per hectare
- Sub-sector 901A (Garden Street) – current density 13.5 dwellings per hectare and proposed density 33.5 dwellings per hectare

Using the internal rate of return (IRR) as the primary indicator of feasibility (and assuming state and local developer contributions of \$50,000 per dwelling), the Economic Feasibility Study found the development of only one of the four sites tested (sub-sector 901A) was economically feasible at the current density.

At the densities achievable based on the preferred urban design outcome outlined in the Urban Design Study, the economic feasibility of the four sites generally worsened, primarily due to the higher cost of construction associated with building apartment blocks and basement car parking.

A third hypothetical scenario of higher densities (up to 60 dwellings per hectare) over the four sites improved the viability of development; however, this scenario generally conflicts with the Urban Design Study outcomes.

Dwelling densities must be set at a level that ensures economic viability of development. Assuming state and local contributions of \$50,000 per dwelling, the Study recommended the following minimum density thresholds:

- Apartment buildings: 60 dwellings per hectare
- Small lot housing and townhouse development: 30 dwellings per hectare.

If basement parking is to be provided in these developments, the density threshold should be increased.

The Economic Feasibility Study notes the lack of residential development site sales in recent times, indicative of a lack of developer confidence and other external factors.

7.4.2 Development of the Southern Buffer

The Study also assessed the feasibility of a mixed-use centre in the Southern Buffer, considering:

- The existing centres hierarchy within the Pittwater LGA
- Demographics, population and household growth forecasts
- The role of Warriewood Square.

The retail market within the broader North East Subregion is dominated by the Brookvale-Dee Why major centre. However, population growth and rising household incomes has driven demand for additional retail floor space within the Subregion.

The Economic Feasibility Study found:

- Existing retail undersupply in the Pittwater LGA,
- Significant underlying growth in retail demand in Warriewood Valley and Pittwater LGA
- Growth in demand for commercial uses
- Many of the existing centres in the Pittwater LGA are constrained from expanding by the established surrounding land uses.

The Economic Feasibility Study supported the principle of expansion of the Warriewood Valley retail area to potentially address Pittwater Road, to create a focal point for the Warriewood Valley community and to help stem the escape of retail expenditure from the Pittwater LGA.

Three notional development schemes for a mixed-use centre in the Southern Buffer considered the expected trade area, the economic viability and impact on the centres hierarchy of each option.

- Option 1 – a mixed-use development over 4 storeys (with a gross lettable area of 20,000m² of general retail space, 27,000m² of bulky goods space, around 4,500m² of commercial floor space and around 7,500m² of residential development).
- Option 2 – a homemaker (bulky goods) centre over a single level with a gross lettable area of approximately 23,700m².
- Option 3 – a subregional shopping centre with discount department store over a single level with approximately 20,100m² of lettable floor space.

The Economic Feasibility Study found that:

- Option 1 is not economically viable, principally due to its multi-storey format and layout.
- Option 2 appears attractive from a market demand perspective. It would capture the current levels of escape expenditure experienced by the Pittwater LGA and would complement the stand-alone Warriewood Square. However, it may not meet the needs of the local community or contribute to creating a lively town centre in Warriewood Valley. Its economic viability is marginal. Viability could be enhanced by a higher proportion of at-grade car parking.
- Option 3 is the most economically viable option, although it may result in a missed opportunity to retain expenditure on bulky goods currently escaping the Pittwater LGA and it may not be as desirable

from a centres hierarchy perspective. It does create a town centre opportunity which will benefit the local community.

Considering the above analysis, the Economic Feasibility Study recommends a subregional shopping centre (Option 3) without a discount department store. Without a discount department store, the centre would in be the order of 10,000m² to 12,000m², which would complement the existing retail hierarchy and help create a town centre for Warriewood Valley.

Key Outcomes

Residential

- Small lot housing and townhouse developments need to achieve a minimum 30 dwellings per hectare to be economically feasible.
- Apartment building developments need to achieve a minimum 60 dwellings per hectare to be economically feasible.
- The recommended minimum density thresholds were based on potential earthworks, lot amalgamation, infrastructure requirements, and assumed a developer contribution of up to \$50,000 per dwelling (State and Local contribution).
- Basement car parking increases the density threshold.
- Residential development projects are unlikely to be feasible if developer contributions are above the \$50,000 per dwelling.

Southern Buffer Area

- A single level subregional shopping centre in the Southern Buffer that complements Warriewood Square and fosters the creation of a town centre in Warriewood Valley is the most economically viable option.

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Recommendations for Residential Densities

Continue to encourage diversity in housing choice to create a liveable and sustainable community



Photo by: Amanda Clarke 2011

8.0 Recommendations for Residential Densities

8.1 Introduction

The Strategic Review looked for opportunities to provide additional housing and a greater range of housing types to meet changing needs of the population.

It makes sense to increase residential density in parts of Pittwater close to existing and planned facilities and services. However, this must be balanced with environmental protection, economic feasibility for both developers and Council and retaining amenity for existing residents.

8.2 Flood Evacuation Issues

The recommendations of the Urban Design Study, Economic Feasibility Study and Strategic Transport Study are based on advice provided through the Hydrology Study regarding flood constraints, cut and fill requirements and the likely impact and management of the flood regime in the Release Area.

During the investigative stage of the Strategic Review AECOM, the Hydrology consultant, and the NSWSES raised issues relating to the evacuation of residents from Warriewood Valley needing to be at the PMF level and that 'shelter in place' was not a satisfactory response to flooding. From an operational perspective the NSWSES has endorsed this as the appropriate position.

As a result of the NSW SES position, the Department is undertaking an intra-government study of its flood evacuation policy position to resolve a consistent approach to land release development and flood evacuation. The results of this study may be forthcoming in 2013. However, it should be noted that this will not delay the progress of any future planning proposals in the Warriewood Valley.

8.3 Recommendations for Residential Densities

The PCG considered opportunities for landowners of individual land parcels to develop on their own and ways to ensure the viability of development opportunities by increasing density to 32 dwellings per hectare, where appropriate. To enable development to proceed in a timely manner, the Strategic Review recommends that with the exception of Sector 501,¹⁰ the 'sector-based' approach (previously required for the development of land in the release area) be relinquished to allow the remaining undeveloped sectors to be developed as separate land parcels rather than as a sector.

Generally, the densities recommended will result in an urban form and scale similar to that already existing in Warriewood Valley, as illustrated in Figure 2. Future development will be constrained by a requirement for building heights to be limited to 2 storeys at the street frontage and 3 storeys at the rear.

In recognition of unsuccessful landowner efforts to progress a masterplan and rezoning application for Sector 901 and the various environmental attributes that differentiate

¹⁰ Sector 501 consists of two properties that have completed masterplanning process and established water management, road and built form arrangements and therefore should be developed as a sector. .

parts of the sector, the Strategic Review recommends that sector 901 be broken up into various subsectors to allow development to proceed in a timely manner.

Given the fewer environmental constraints affecting the eastern portion of Sector 901, the exhibited report recommended that the properties within sub-sector 901A amalgamate and develop as a sector at 36 dwellings per hectare, based on the opportunity to achieve 3 storey apartment buildings. This will provide diversity in housing stock within the release area, consistent with the determinations of the PAC.¹¹

Since exhibition however, a landowner within sub-sector 901A has confirmed their intention not to accommodate any residential form. As such, the opportunity for sub-sector 901A to amalgamate and develop at 36 dwellings per hectare is lost. Consistent with the proviso contained in the exhibited document; where sub-sector 901A does not amalgamate, the maximum density able to be achieved for individual properties in sub-sector 901A is reduced to 32 dwellings per hectare.

Some of the western sub-sectors of Sector 901 (901D, E, G and H), as well as Sectors 10A.1 and 10A.2 and 120 Mona Vale Road, were identified as being affected by significant constraints and would only have limited, if any, capacity for development, considerably less than 25 dwellings per hectare. The onus would be on the landowner to seek rezoning, supported by necessary environmental studies.

In addition, Buffer 1a was not tested by the Urban Design Consultant, in recognition of the development currently underway on the site.

A summary of the recommended density for each sector with identified potential for density increase is in Table 4.

¹¹ Planning Assessment Commission Determination Report on Concept Plan and Stage 1 Project Application for 14-18 Boondah Road Warriewood (18 January 2010).

Figure 2: Net Residential Density and Typical Housing Types

Source: Landcom (2011) *Reference Chart Net Residential Density*

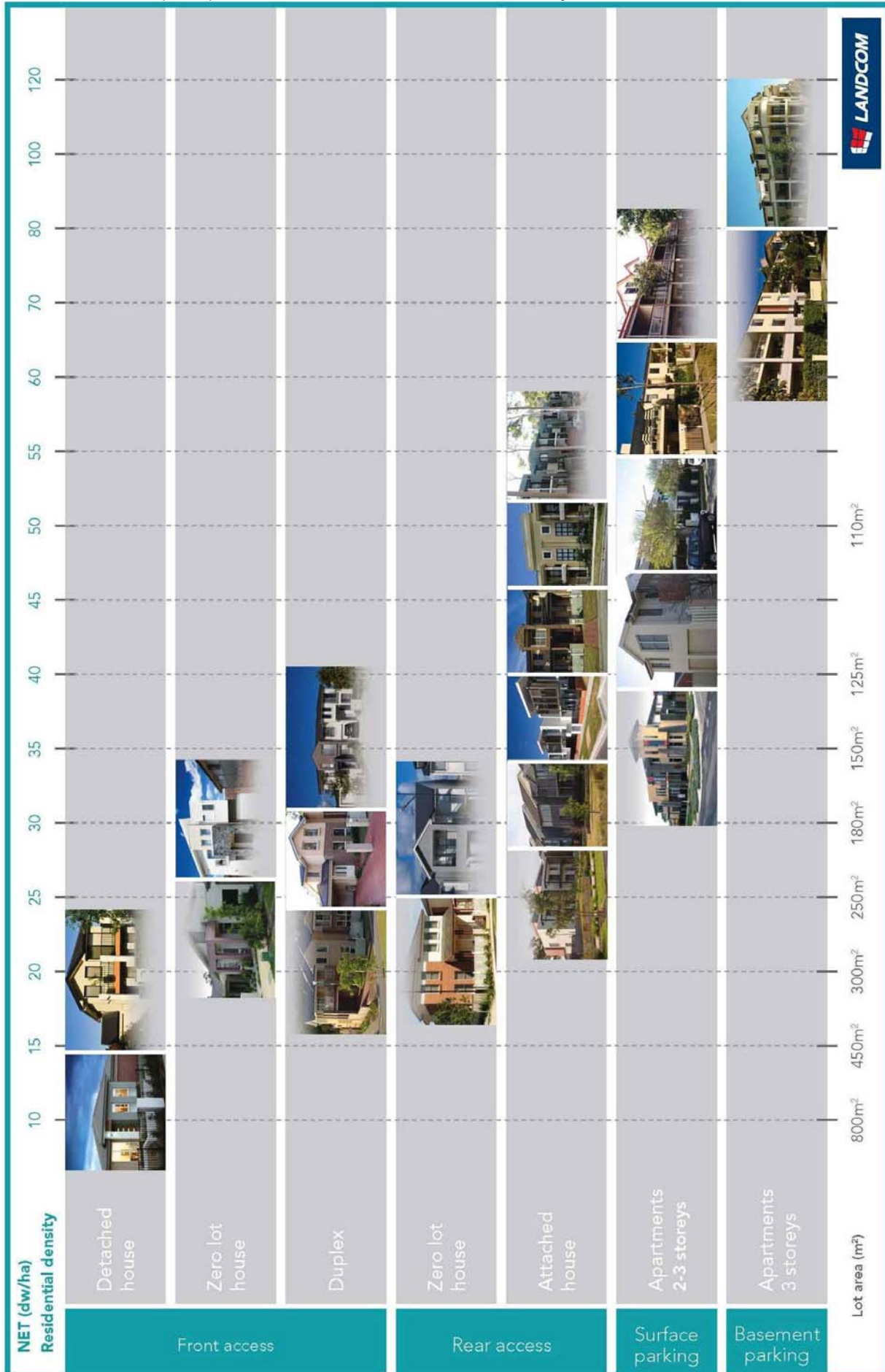


Table 4: Recommended Residential Densities and Yields

Sector	2010 Framework Yield	Recommended Density	Recommended Yield	Additional to 2010 Framework
101	1	26/Ha	4	3
301	42	32/Ha	53	11
302	66	32/Ha	84	18
303	23	32/Ha	29	6
501	75	32/Ha	94 ⁺	19
801	19	32/Ha	38 ^{**}	19
901A & road reserve (excluding 9 Fern Creek Road)	156 ⁺⁺	32/Ha	192	36
901B	12 ⁺⁺	32/Ha	36	24
901C	17 ⁺⁺	32/Ha	22	5
901D & road reserve	14 ⁺⁺	No density allocated ^{***}	0	-14
901E	2 ⁺⁺	No density allocated ^{***}	0	-2
901F	14 ⁺⁺	10/Ha	14	0
901G	16 ⁺⁺	No density allocated ^{***}	0	-16
901H	14 ⁺⁺	No density allocated ^{***}	0	-14
10A.1	8	No density allocated ^{***}	0	-8
10A.2	6	No density allocated ^{***}	0	-6
10B	28	20/Ha	45	17
Buffer 1a	17	15 dwellings under construction	15	-2
Buffer 1b	17	32/Ha	24	7
Buffer 1c	13	32/Ha	18	5
Buffer 1d	1	32/Ha	1	0
Buffer 1e	11	32/Ha	15	4
Buffer 1f	14	32/Ha	21	7
Buffer 1g	17	32/Ha	23	6
Buffer 1h	1	32/Ha	1	0
Buffer 1i	27	32/Ha	39	12
Buffer 1j	26	32/Ha	40	14
Buffer 1k	14	32/Ha	21	7
Buffer 1l	43	32/Ha	67	24
Buffer 2a	20	22/Ha	29	9
Buffer 3b	7	32/Ha	9	2
120 Mona Vale Road	Not included in 2010 Planning Framework	No density allocated ^{***}	0	0
TOTAL ADDITIONAL DWGS				193

⁺Incorrect total (99 dwellings) shown in Exhibited Report and Urban Design Study. Correct total 94 dwellings.

^{**}Construction may be commenced under current Development Consent for 46 dwellings and Focal Neighbourhood Centre (approved under SEPP (Affordable Rental Housing)).

⁺⁺Proportional yields based on 2010 Planning Framework allocation. 2010 Planning Framework allocated a total yield of 245 for whole of Sector 9, based on densities between 10 and 25/Ha achieved in various parts of sector.

^{***} Strategic Review does not recommend a density for these sectors. Limited capacity for development, significantly less than 25 dwellings per hectare. Landowner may seek rezoning.

8.4 Site Amalgamations

While a mix of dwelling forms represents a more desirable urban outcome, this is difficult to achieve on smaller sites throughout the Valley. There may be opportunities for a greater mix of housing types, including low-rise apartment buildings, through sector amalgamations. Landowners may wish to consolidate sites as a means of achieving better quality outcomes at a density of 32 dwellings per hectare. For example, properties fronting Orchard Street may take advantage of the available closed Orchard Street road reserve (and amalgamate) for its future development.

In addition to the sectors recommended for amalgamation in the Urban Design Study, there may be opportunities for other sectors within the release area to amalgamate to maximise development opportunities.

8.5 Total additional dwellings

The net increase in dwellings, as a result of the Strategic Review's density recommendations for specified sectors, is an additional 193 dwellings above the 2010 Planning Framework's yield allocation. A summary of the additional dwellings recommended for these sectors is outlined in Table 4.

8.6 Sustainability Assessment

For those sites identified with capacity for increased density, the recommended density of 32 dwellings per developable hectare (up from 25 dwellings per developable hectare) should provide financially viable, sustainable development outcomes enabling completion of the Warriewood Valley land release project.

The Release Area's environmental and hydrological attributes continue to be valued and in some cases, reaffirmed that land be set aside for preservation of natural habitats.

The Strategic Review concludes that there will be little or negligible environmental impact from the additional dwellings. An amenable residential environment will be delivered with opportunities to rehabilitate existing creekline corridors and enhance existing open space areas with connected pedestrian and cycle links.

Map 11: Recommended Residential Densities (to be read in conjunction with Table 4)



Key Outcomes

- The maximum density recommended for the majority of undeveloped land in Warriewood Valley is 32 dwellings per hectare, resulting in an additional 193 dwellings.
- Sub-sectors 901D, E, G and H and Sectors 10A.1 and 10A.2 have not been identified as having significant capacity for development.
- The table below lists those sectors tested for increased density, and compares the density attributed under the 2010 Planning Framework against the Strategic Review's recommended density:

Sector ID	Property Address	2010 Density	New Density	2010 Yield	New Yield	Additional Dwellings
101	165-167 Warriewood Rd	15/Ha*	26/Ha	1	4	3
301	20 Macpherson St	25/Ha*	32/Ha	42	53	11
302	18 Macpherson St	25/Ha*	32/Ha	66	84	18
303	16 Macpherson St	25/Ha*	32/Ha	23	29	6
501	4 & 8 Forest Rd	25/Ha*	32/Ha	75	94	19
801	23B Macpherson St	25/Ha*	32/Ha	19	38	19
901	See Separate Table ⁺	25/Ha**	Various	245**	264	19
10A.1	115 Orchard Street	15/Ha*	-	8	0	-8
10A.2	111,111a & 113 Orchard St	15/Ha*	-	6	0	-6
10B	109 Orchard St	15/Ha*	20/Ha	28	45	17
Buffer 1a	Formally known as 61 Warriewood Rd	25/Ha ⁺⁺	No change – development substantially commenced	17	15 dwgs under construction	-2
Buffer 1b	53 Warriewood Rd	25/Ha ⁺⁺	32/Ha	17	24	7
Buffer 1c	53a Warriewood Rd	25/Ha ⁺⁺	32/Ha	13	18	5
Buffer 1d	53b Warriewood Rd	25/Ha ⁺⁺	32/Ha	1	1	0
Buffer 1e	53c Warriewood Rd	25/Ha ⁺⁺	32/Ha	11	15	4

* Density achieved across the whole sector rather than on individual land parcels

⁺ Sector 901 – divided into sub-sectors as a result of environmental attributes

^{**} While the 2010 Planning Framework allocated 25/Ha for the former Sector 9, it recognised that some parts of the sector would only achieve 10/Ha. The 2010 Framework total yield for Sector 9 was calculated on densities between 10/Ha and 25/Ha across various land parcels.

⁺⁺ Density calculated with the first 15m fronting the street at 10/Ha and remainder at 25/Ha

Key Outcomes (Continued)

Sector ID	Property Address	2010 Density	New Density	2010 Yield	New Yield	Additional Dwellings
Buffer 1f	49 Warriewood Rd	25/Ha*	32/Ha	14	21	7
Buffer 1g	45 Warriewood Rd	25/Ha*	32/Ha	17	23	6
Buffer 1h	43 Warriewood Rd	25/Ha*	32/Ha	1	1	0
Buffer 1i	41 Warriewood Rd	25/Ha*	32/Ha	27	39	12
Buffer 1j	31 Warriewood Rd	25/Ha*	32/Ha	26	40	14
Buffer 1k	29 Warriewood Rd	25/Ha*	32/Ha	14	21	7
Buffer 1l	23,25 & 27 Warriewood Rd	25/Ha*	32/Ha	43	67	24
Buffer 2a	4 Macpherson St	Max 20 dwgs	22/Ha	20	29	9
Buffer 3b	5 & 7 Macpherson St	25/Ha*	32/Ha	7	9	2
TOTAL ADDITIONAL DWELLINGS						193

* Density calculated with the first 15m fronting the street at 10/Ha and remainder at 25/Ha

- Sector 901 should be divided into sub-sectors based on various environmental attributes.
- Sub-sectors 901D, 901E, 901G and 901H have limited capacity for development and have not been allocated a density/yield.
- The density and yield suggested for sub-sectors of Sector 901 are tabled below:

Sector 901 sub- sectors	Property Address	2010 Density	New Density	2010 Yield	New Yield	Additional Dwellings
901A	Lot 13 DP1092788, 10 Fern Creek Rd, 2, 4 & 6 Orchard St & Orchard St Road Reserve (eastern side Fern Creek Rd)	25/Ha*	32/Ha	156*	192	36
901B	2 Fern Creek Rd		32/Ha	12*	36	24
901C	Lot 12 Dp1092788		32/Ha	17*	22	5
901D	1 Fern Creek Rd & Orchard St Road Reserve (western side Fern Creek Rd)		-	14*	0	-14
901E	12 Orchard St (battleaxe portion only)		-	2*	0	-2
901F	14 Orchard St (southern portion only)		10/Ha	14*	14	0
901G	Lot 11 DP1092788		-	16*	0	-16
901H	4 & 5 Fern Creek Rd (northern portion only)		-	14*	0	-14
SECTOR 901 TOTAL ADDITIONAL DWELLINGS						19

*While the 2010 Planning Framework allocated 25/Ha for the former Sector 9, it recognised that some parts of the sector would only achieve 10/Ha. The 2010 Framework total yield for Sector 9 was calculated on various parts of sector achieving densities between 10/Ha and 25/Ha.

Key Outcomes (Continued)

- The following sectors have capacity for increased density and have a safe evacuation route in PMF events:
 - Sector 101
 - Buffer 1b, 1c, 1d, 1e, 1f, 1g, 1h, 1i, 1j, 1k, 1l
- The following sectors do not have evacuation routes clear of the PMF event. A clear flood emergency response acceptable to the State Government must be established as part of the rezoning of these sectors:
 - Sector 301, 302, 303
 - Sector 501
 - Sector 801
 - Sub-sector 901A, 901B, 901C, 901F
 - Sector 10B
 - Buffer 2a
 - Buffer 3b

Recommendations for the Southern Buffer

A vision for the area that inspires the community and stakeholders



Photo by: Amanda Clarke 2011

9.0 Recommendations for the Southern Buffer

9.1 Southern Buffer Extent

The Southern Buffer, formerly known as Sector 15, Sector B and part of Sector 17, is located at the junction of Pittwater Road and Jacksons Road. This area is around 29 hectares and immediately adjoins Warriewood Square.

Prior to the Strategic Review, this was the only area remaining in Warriewood Valley to be fully investigated.

Figure 3: Southern Buffer Sector Extent



9.2 Outcome of Hydrology Study

The Hydrology Study determined that compensatory cut and fill across significant portions of the sector was required for development to occur in two developable 'islands' of the Southern Buffer: one in the north western corner adjoining Boondah Road and the other in the southern portion along Jacksons Road. Based on the cut and fill solution proposed, the Hydrology Study recommended suitable land uses for the Southern Buffer. It was determined that, for flood engineering reasons, no building footprint could be located in the central area of the sector.

The areas within the Southern Buffer with development capacity are on separate land parcels and under separate ownership. As the areas to be 'cut' are essential to those areas to be 'filled' and developed, development will require negotiation and agreement between landowners.

9.3 The Role of the Centre in the Centres Hierarchy

Any new centre in the Southern Buffer must address its role and position in the established centres hierarchy, especially given its proximity to Warriewood Square.

Warriewood Square is described in the *Draft North East Subregional Strategy* as a stand-alone centre - that is:

'Internalised, privately owned centres located away from other commercial centres, containing many of the attributes of a Town Centre but without housing or public open space - may have potential to become a traditional town centre in the long term.'

Warriewood Square aligns the western boundary of the Southern Buffer, with direct access off Jacksons Road. The Southern Buffer can accommodate any future expansion of this centre provided there are clear, direct linkages between Warriewood Square and the southern developable 'island'.

The expanded centre (including Warriewood Square) will need to become a 'town centre' in its own right. This will require it to provide different retail and services offerings so that it does not impact on the economic viability of the Mona Vale Town Centre or North Narrabeen village centre.

9.4 Exhibited Draft Vision and Concept Plan for the Southern Buffer Precinct

9.4.1 Vision for the Southern Buffer

The overarching vision for the Southern Buffer precinct is:

***'A sustainable, created space...to work, play and interact.
Where people come to meet and engage.
Connected with its community, in its setting.'***

9.4.2 Southern Buffer Concept Plan Elements

The exhibited draft concept plan for the Southern Buffer is based on a mix of land uses and services that help to establish the area as a vibrant hub of leisure and lifestyle activities.

Residential development has been envisaged in the north-western developable portion of the sector, similar in scale and form to the adjacent,

approved 14-18 Boondah Road development (which will result in 3-4 storey residential buildings containing 67 dwellings).

The draft concept plan also envisages a new mixed-use centre in the southern developable portion, including retail uses, civic uses (current levels of civic floor space will need to be maintained), cafes, restaurants and an active public square, with opportunities for residential. This mixed-used centre will complement Warriewood Square.

The concept plan proposes the realignment of Boondah Road to maximise the area set aside for open space and to reduce vehicular-pedestrian conflicts.

Existing open space areas would be enhanced by pedestrian and cycling links.

9.4.3 Southern Buffer Precinct Design Principles

The following design principles have been developed for the Southern Buffer:

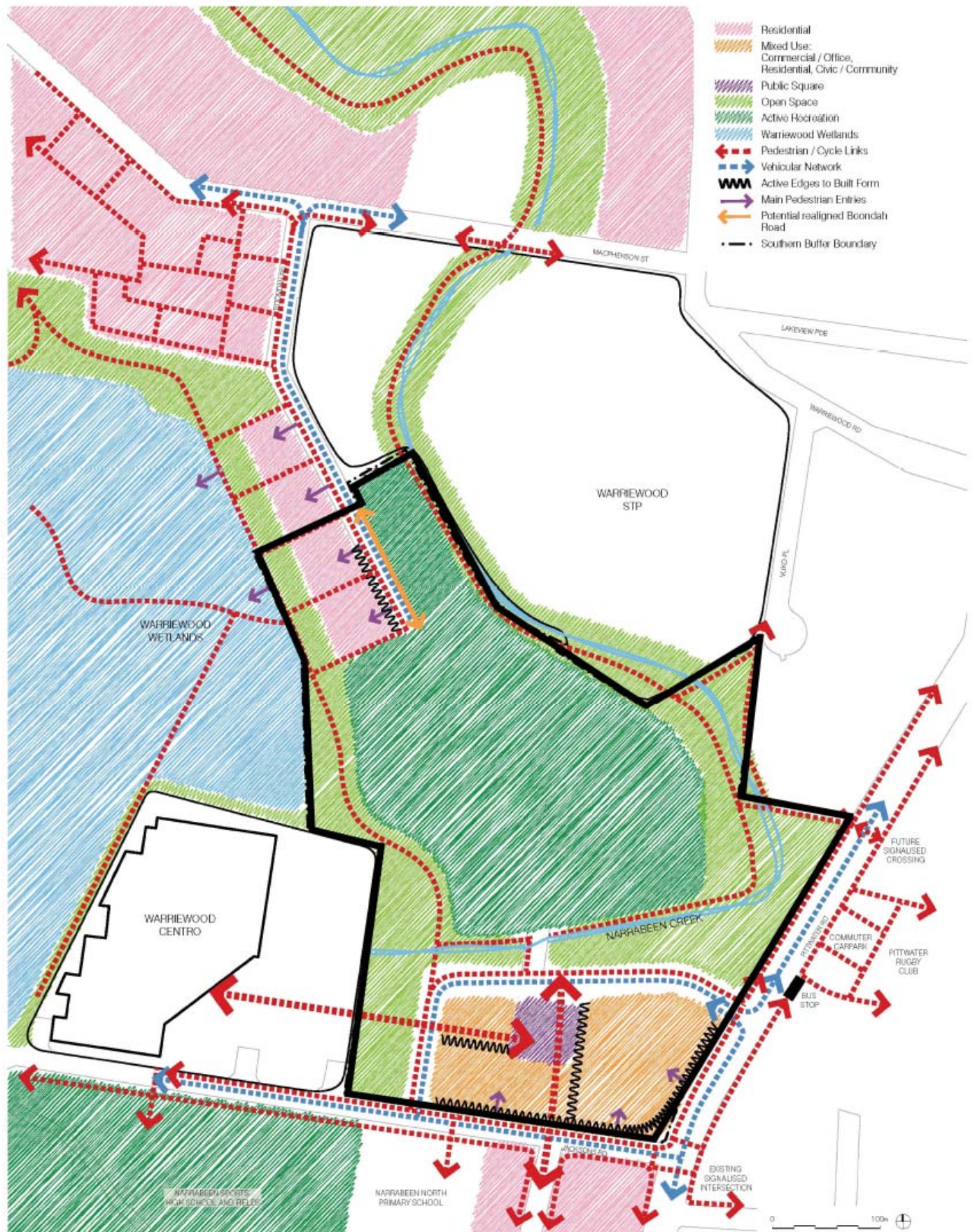
- 1. Respond to the environmental constraints of the locality:**
 - Undertake earthworks to create flood-free development sites at the southeast and northwest corners of the Southern Buffer
 - Re-engineer Boondah Road to meet flood requirements
 - Adapt to the impacts of climate change
- 2. Improve vehicular circulation in the Southern Buffer Precinct:**
 - Investigate a new local road around the new mixed-use centre
 - Put traffic calming measures in place in pedestrian areas
- 3. Enhance pedestrian and bicycle links:**
 - Implement a fine grain pedestrian and cycle network around the active recreation space and mixed-use centre, with connections to existing and proposed paths
 - Provide a direct pedestrian links between the new public square, Warriewood Square and Jacksons Road
 - Provide canopies at all main pedestrian entries to provide weather protection
- 4. Improve public open space and protect biodiversity:**
 - Realign Boondah Road to ensure that it does not dissect active recreation areas
 - Retain and enhance active recreation uses
 - Preserve and rehabilitate ecologically sensitive zones, especially the western ecological corridor extending north from Jacksons Road and adjoining Warriewood Square and Warriewood Wetlands.
 - Maintain a 25 metre inner corridor along each side of the creek line.
- 5. Encourage the development of a vibrant, active mixed-use centre that will function as a focal point for the community:**
 - Create an exciting hub of leisure and lifestyle uses
 - Create a north-facing public square that looks out over the Narrabeen Creek corridor
 - Activate pedestrian links uses such as small scale retail outlets, cafes and restaurants

- Align buildings and entrances to street frontages and the new public square.
- Activate any future built form at the corner of Pittwater Road and Jacksons Road.

6. Ensure a sustainable and attractive built form:

- Incorporate sustainability best practice
- Encourage design excellence
- Provide visually attractive building edges and pedestrian entries
- Incorporate appropriate landscape treatments
- Maintain clear view corridors between the new public square, Warriewood Square and Jacksons Road
- Locate all utilities underground
- Locate parking underground where possible or, if above ground, away from active edges.

Map 12: Exhibited Draft Concept Plan



9.5 Recommended Direction for the Southern Buffer

The exhibited Draft Concept Plan for the Southern Buffer is just one of a number of ways a mixed-use centre could be developed in the Southern Buffer. The decision to locate the proposed centre on the corner of Pittwater Road and Jacksons Road takes advantage of the major public transport corridor (with Pittwater Road nominated as the strategic bus corridor). Other well-established planning and urban design principles include the creation of an active hub for the community by concentrating uses in one location and synergies with the retail offering at Centro Warriewood. Environmental constraints, such as the riparian corridors and flooding, also influenced the location of the proposed centre.

The opportunity to include all landowners (both private and public) in the planning for the Southern Buffer was considered to offer the best opportunity to respond to the environmental constraints and provide the optimum development potential of the land.

Following the public exhibition of the Draft Strategic Review Report, it is clear that the community is generally opposed to the proposal. At this time, landowners also are reluctant to pursue a collaborative approach in developing the area.

It is recommended that the Draft Concept Plan for the Southern Buffer not proceed at this time.

Should landowners wish to pursue other development opportunities for their land, either individually or in partnership, they should do so through the preparation of a rezoning application, fully supported by the necessary studies including those matters highlighted by the Strategic Review (such as flood extent and potential impacts as a result of developing the land including cut and fill to provide building platforms above the flood level and low lying roads in the area would have to be raised if evacuation in the event of a major flood is to be achieved).

9.6 Sustainability Assessment

Any future development proposal for the Southern Buffer must incorporate sustainability best practice, taking into account the opportunities and constraints which have been identified through the Strategic Review.

Key Outcomes

- The Draft Concept Plan for the Southern Buffer will not be progressed.
- Development opportunities may however be pursued by landowners, individually or through a collaborative approach.
- Analysis of opportunities and constraints identified through the Strategic Review should inform, but not limit the future considerations for development in this precinct.
- The onus is on landowners, acting independently or in partnership, to investigate future opportunities and seek individual rezoning applications, accompanied by supporting documentation. Landowners will need to demonstrate how sustainable development can be achieved given the circumstances relevant to their land.

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Provision of Infrastructure & Services

Planning and delivering infrastructure & services will create better places to live and work



Photo by: Amanda Clarke 2011



10.0 Provision of Infrastructure & Services

10.1 Principles for the Provision of Infrastructure and Community Services

Infrastructure and services delivery has matched development in the Release Area. This coordinated approach ensures a safe and amenable development outcome, achieved via:

- Direct provision by developers.
- Section 94 Contributions to provide facilities and infrastructure.

Council has relied on direct provision of facilities and infrastructure by developers to achieve early delivery of facilities and infrastructure. This can be through conditions of the development consent or through utilisation of a Material Public Benefit rather than relying on Section 94 contributions that provide for facilities at a later date.

A key principle to the development of Warriewood Valley has been a sector-based approach (more in response to the fragmented ownership in the release area), whereby facilities and infrastructure directly related to the development of a sector is provided by the development process.

Infrastructure and facilities common to the overall Release Area are part of 'shared' system and, as they are considered to be beyond direct provision by the developer, they are incorporated into a Section 94 Contributions Plan. It should be noted that any change in flood evacuation policy has an impact on infrastructure costs that will need to be identified as part of a contributions plan.

Infrastructure, facilities and services need to address the requirements of the overall development of Warriewood Valley. A summary of existing infrastructure, facilities and services identified to address the needs of the Release Area is in Table 5.

Table 5: Existing Infrastructure & Services

Existing Identified Infrastructure & Facilities	Any additional requirements from outcomes of review	Recommendation
Stormwater management facilities	No additional requirements, still needs to be provided in accordance with adopted Water Management Specifications	Strategy for provision – retain & include in Section 94 Contributions Plan
Continued use of land (30%) for stormwater mgt credited to open space	Dual-use of land assists in delivering the quantum of open space required for total dwellings	Strategy for provision – retain & include in Section 94 Contributions Plan
Traffic and Transport	Increase in dwelling yield will require improvements to traffic and transport, as identified in AECOM Report and can be incorporated	Strategy for provision – retain & include in Section 94 Contributions Plan

Open Space and Recreation	Increase in dwelling yield will require additional quantum of open space and recreational areas, especially for sports fields. An initial analysis indicates future opportunity available to meet the required quantum of land.	Strategy for provision – retain & include in Section 94 Contributions Plan
Pedestrian and Cycleway Network	No additional requirements, still needs to be provided to ensure connected network within Valley and immediate surrounds.	Strategy for provision – retain & include in Section 94 Contributions Plan
Community Services & Library Resources	No additional community facility required as increase in dwelling yield can be accommodated in planned floorspace. Increase in dwelling yield will require additional library resources.	Strategy for provision – retain & include in Section 94 Contributions Plan

Each category of infrastructure and facilities identified above is still required in the development of Warriewood Valley. The strategies developed for each category of infrastructure and facilities, as expressed in the 2010 Planning Framework, will be retained and, where required, be amended accordingly (see Appendix 4) and will inform the preparation of a Section 94 Contributions Plan addressing the requirements of the resultant development anticipated for Warriewood Valley.

10.2 Services

Servicing capacity, such as utility services, must be identified and scheduled for delivery by servicing agencies. Utility service agencies and state agencies such as, Education and Training and Health have confirmed their ability to accommodate any increase in demand resulting from the Strategic Review.

10.3 Affordable Housing Provision

Affordable housing means ‘*housing that is appropriate for the needs of a range of very low, low and moderate income households, priced to ensure households are able to meet other essential basic living costs*’¹² and encompasses a range of housing options.

An emerging housing trend affecting Pittwater LGA and the Sydney Metropolitan Area has been the decline in housing affordability.

At its meeting of 21 February 2011, Council resolved:

6. *That Council support that in any future strategic review of Warriewood Valley that results in higher densities, that Council will seek to require 10% of any additional housing density be provided as 'affordable rental housing', managed by an appropriate Community Housing Provider in perpetuity.*

The cost of housing in Pittwater (and the wider Sydney metropolitan region) has increased faster than income in both the owner/occupier and rental markets. This is quite evident in Pittwater LGA, where house prices are higher than most of Sydney.

¹² Human Services Housing NSW (July 2010) *NSW Affordable Housing Guidelines*, 1.

When the cost of housing exceeds 30% of household income (for households earning less than 120% of the median income) this is referred to as 'housing stress'. Those most affected by housing affordability and housing stress are low and medium waged workers who provide essential community services¹³ such as health, police, education, child and aged care.

If housing is not affordable for key workers this has the potential to distort the economies of an area by increasing the cost of business. The time and effort invested in commuting and the increased pollution and congestion have negative effects on quality of life and the environment. Increasing affordable housing is a key social and economic imperative.¹⁴

Demand for Affordable Housing

Tables 6 and 7 below indicate a significant number of very low and low income households in Pittwater are in housing stress

Table 6: Percentage of Affordable Rental Housing Stock Affordable to Very Low, Low and Moderate Income Households in Pittwater and the Sydney Statistical Division

Source: Valuers General (VG) & Rental Bond Board (RBB) Data

	% of Affordable Rental Housing Stock					
	Very Low Income Households		Low Income Households		Moderate Income Households	
	Pittwater	Sydney SD	Pittwater	Sydney SD	Pittwater	Sydney SD
Dec 2010	3	5	9	16	31	54

Table 7: Number of Very Low, Low and Moderate Income Households in Rental Stress in Pittwater and the Sydney Statistical Division in 2006

Source: ABS Census 2006

	Number of Households in Rental Stress in 2006					
	Very Low Income Households		Low Income Households		Moderate Income Households	
	Pittwater	Sydney SD	Pittwater	Sydney SD	Pittwater	Sydney SD
No in Rental Stress	388	65,475	436	36,611	421	22,500
% in Rental Stress	97	93	88	61	56	32
Total Renters	398	70,708	497	60,192	746	71,229

Council, in introducing this social initiative through its resolution of 21 February 2011 and reiterating it in the Local Planning Strategy, recognised the need to facilitate affordable rental housing to help alleviate housing stress. This requires housing to be priced well below private market rental and made available to local residents and/or local employees on low to moderate weekly incomes (who meet eligibility criteria set

¹³ Epic Dot Gov & Glazebrook Associates (2004) 'Northern Beaches Key Worker Study', *Final Report to the NSW Departments of Housing and Infrastructure, Planning and Natural Resources, and Manly Warringah Council*, Sydney.

¹⁴ Regional Development Australia (2010) *Regional Development Plan for Sydney*, an initiative by the Australian Federal Government and NSW State Government.

out in the *NSW Affordable Housing Guidelines*, July 2010), and managed by a Community Housing Provider.

Planning Mechanisms for Affordable Housing Provision

The recent review of the State Environmental Planning Policy (Affordable Rental Housing) 2009 identified the need to develop a new Affordable Housing Choice SEPP and the requirement for local government to develop LGA-specific Affordable Housing Choice Strategies that enable exemption from the Affordable Housing Choice SEPP. Preparation of this new SEPP has commenced.

Currently, the only mechanism to generate or produce affordable housing stock is limited under Section 94F of the EP&A Act or through direct provision via a Voluntary Planning Agreement.

The outcome of the Strategic Review results in an additional 193 dwellings. Any increase in dwelling yield will attract a need to provide affordable rental housing units, based on a 10% target. Any future residential development in the Southern Buffer will need to provide affordable housing at 10% of the total housing stock.

Council's resolution of 21 February 2011 set a 10% target for the provision of affordable rental housing in Warriewood Valley. The Section 94 Contributions Plan will need to consider opportunities to provide affordable rental housing.

Key Outcomes

- A Section 94 Plan will need to be prepared to account for the increase in dwelling yield and the infrastructure and service requirements of the total development, and future development in the Southern Buffer.
- The Economic Feasibility Study has advised that the feasibility of residential development relies on limiting the developer contribution rate (State and local) to approximately \$50,000 per dwellings, less than the current \$62,100 local levy.

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Conclusion

Warriewood Valley achieves "...very high quality outcomes for the urban fabric and public domain with strong FSD principles and triple bottom line reporting" 2008 UDIA - Public Sector Leadership Award



Photo by: Amanda Clarke 2011

11.0 Conclusion

The Strategic Review provided opportunities to re-evaluate the dwelling densities applicable in Warriewood Valley as well as the requirements for infrastructure and services/facilities. It was also allowed an examination of the opportunities and constraints of the Southern Buffer.

The recommended dwelling density up to 32 dwellings per developable hectare should provide financially viable, sustainable development outcomes enabling completion of the Warriewood Valley Release Area.

The Strategic Review provides for an additional 193 dwellings above that anticipated by the 2010 Planning Framework for those sectors.

The exhibited concept plan developed for the Southern Buffer responds to its environmental constraints and values and embeds in it the vision for the Southern Buffer area, namely:

***‘A sustainable, created space...to work, play and interact.
Where people come to meet and engage
Connected with its community, in its setting.’***

The exhibited concept plan is one option for this area and at this stage will not be progressed further. The onus is on landowners, acting independently or in partnership, to explore and further investigate opportunities for the future development of the sector.

This Strategic Review Report, supported by the background land capability assessment approach, Hydrology Study, Strategic Transport Study, Urban Design Study and Economic Feasibility Study will allow the environmentally, socially and economically sustainable use of land in the Release Area, as first expressed in the precursor planning documents for Warriewood Valley.

The resolution of flooding matters, in particular flood emergency response policy, that is acceptable to the relevant State Government departments must be developed prior to the rezoning of land that is not able to be evacuated in the event of a PMF event.

Appendices



Photo by: Amanda Clarke 2011

Appendix 1 to 5

Appendix 1: Chronology to the Development of Warriewood Valley

1991

In 1991 land at Warriewood and Ingleside was included in the State Government's Urban Development Program (now known as the Metropolitan Development Program). The then Minister for Planning appointed Pittwater Council as the authority responsible for the feasibility investigations and planning for a land release at Ingleside and Warriewood.

Pittwater Council initiated the planning process and formed a Land Release Advisory Committee to discuss issues related to the investigation, planning and implementation of the land release process.

1995

In 1995 Council produced a draft planning strategy for Warriewood and Ingleside – the *Ingleside/Warriewood Urban Land Release Draft Planning Strategy* (1995 Strategy), drawn from outcomes of a range of environmental and demographic studies to provide future development options (low to medium dwelling density scenarios), population projections and land use allocation.

The 1995 Strategy anticipated up to 6,400 dwellings could be provided through the development of 700 hectares of land. Land surrounding the Warriewood Sewerage Treatment Plant (STP) (40 hectares) was excluded due to the uncertainty regarding the effect of the odours from the STP on surrounding land uses.

In May 1995 the Council accepted the *Ingleside/Warriewood Urban Land Release Draft Planning Strategy* for the purpose of public exhibition and referral to the State Government. Consultation with the public and State Government authorities highlighted the infrastructure difficulties associated with a land release at Ingleside and the potential regional environmental impacts.

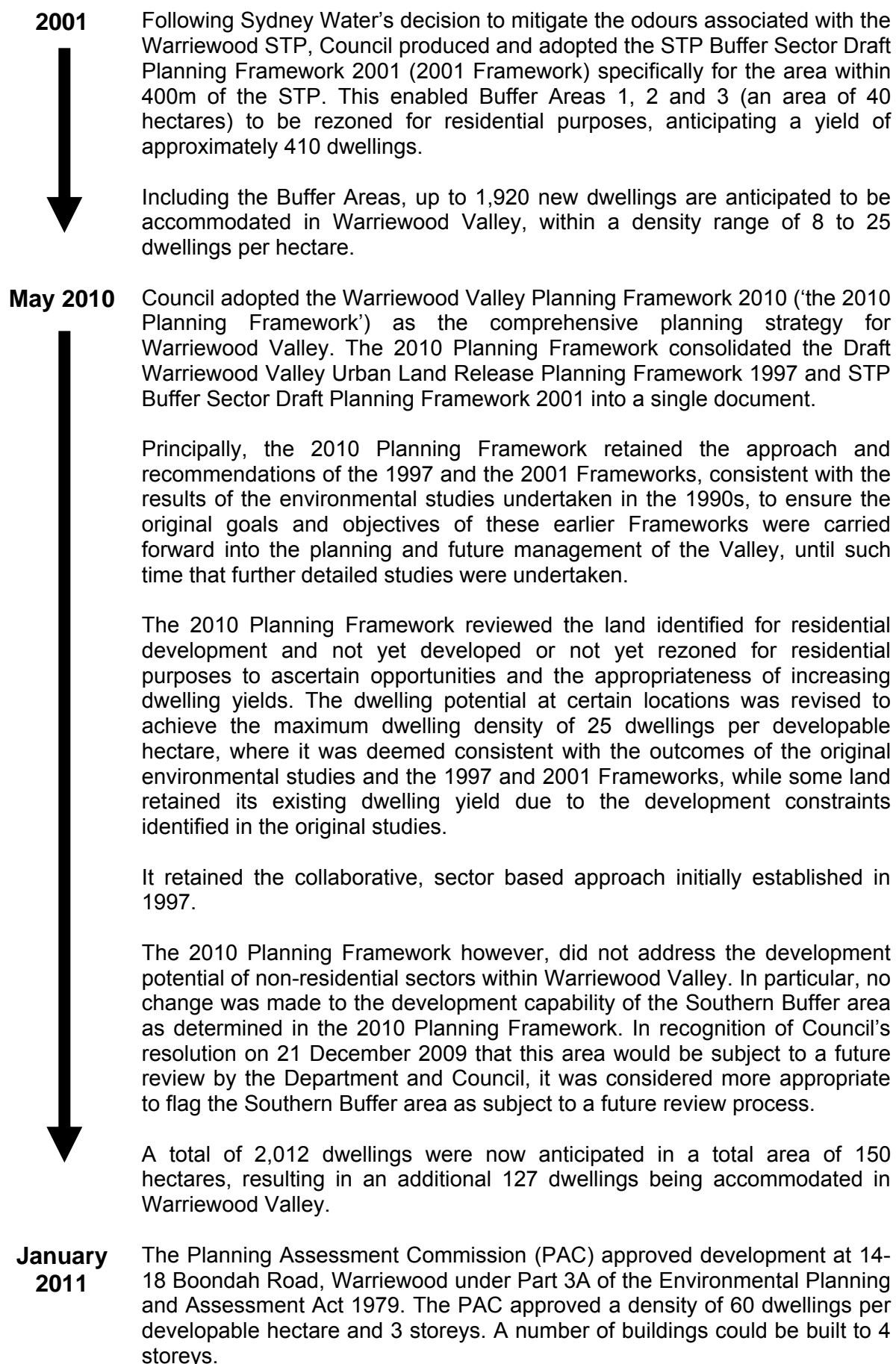
May 1997

The then Minister for Urban Affairs and Planning announced a restricted release of land for urban development within Warriewood only.

The Minister specifically deferred consideration of land within a 400 metre 'buffer area' surrounding the Warriewood STP.

The *Draft Warriewood Valley Urban Land Release Planning Framework 1997* (1997 Framework), became the planning strategy that guided the development of Warriewood Valley. Taking its lead from the projections contained in the 1995 Strategy, the 1997 Framework anticipated 1,510 dwellings being provided within 110 hectares, including five hectares of industrial/commercial land and associated community facilities and infrastructure. The initial land release excluded 40 hectares of land surrounding the STP.

A critical feature of the 1997 Framework was the establishment of a 'sector by sector' approach to ensure the coordinated and orderly planning and development of Warriewood Valley.



Appendix 2: Land Capability Mapping

This document establishes the classification criteria for each of the sustainability characteristic map layers that contribute to the Warriewood Valley Strategic Review Report.

As well as forming the basis for land use allocation decisions, those criteria (as they apply to sections of land individually and collectively) will form a basis for related development controls and land management prescriptions which can be applied to future development and use of the land to ensure that adverse impact is minimised and sustainability achieved.

Each sustainability characteristic map layer represents an 'environmental, economic or social' characteristic that influences land use allocation decision and identifies issues that need to be addressed in the future management of the land.

Each of the individual map layers has been divided into 3 classes:

- **Class A: Low restriction to intensification of development.**
Existing development may require generic management prescriptions to achieve sustainable land use. Intensification of development must be confined to defined targets to maintain sustainability.
- **Class B: Moderate restriction to intensification of development.**
Existing development forms require generic management prescriptions to achieve sustainable land use. Any intensification of land use needs site specific investigation and must address constraints that apply to land.
- **Class C: Significant restriction to intensification of land use.**
Existing development forms require site specific and detailed management prescription to achieve sustainable land use. No intensification of development unless specific constraint can be fully addressed.

The following tables set out the individual sustainability characteristic map layers that contribute to the Composite Capability Map (Map 3 in Chapter 6) and specify their respective classification criteria.

Composite Environmental (Biodiversity, Slope) Capability Map

Map Layer	Objective	Sustainability Link	Layer	Criteria
Biodiversity	Preserve Biodiversity	Environmental	A	Other Land
			B	Category 2 Bushland; Wildlife Corridors (category 2) Seabed Areas
			C	Includes endangered ecological communities (Littoral Rainforest areas, Pittwater Spotted Gum, Freshwater Wetlands, Swamp Forest, Duffy's Forest, Salt Marsh, and Themedra Grassland); Category 1 Bushland > 400 sqm; Wildlife Corridors (Category 1); Seagrass Beds; Mangroves; Tidal Flats; National Parks.
Slope	Restrict Development on unsuitable sites	Environmental Economic	A	Land with Slope less than 15% (determined by a 10m grid)
			B	Land with Slope between 15% - 25% (determined by a 10m grid)
			C	Land with Slope more than 25% (determined by a 10m grid)
Proximity to Watercourses		Environmental	A	Other Land
			B	Within 40m of Major Watercourses and 20m of Minor Watercourse
			C	Nil

Composite Visual and Cultural Significance (Foreshores and Waterbodies, Heritage, Ridgelines) Map

Map Layer	Objective	Sustainability Link	Layer	Criteria
Ridgelines	Preserve the visual character of the current vegetated ridge lines and escarpment edges	Social	A	Other land.
			B	Within 50m of a secondary ridgeline or between 50-100m of major ridgeline or escarpment edge
			C	Within 50m of major ridgeline or escarpment edge.
Foreshores and Waterbodies	Maintain Character of Foreshore Areas	Environmental Social	A	Other Land
			B	Land between 25 and 50 metres of any tidal foreshore or Narrabeen Lagoon
			C	All of the Pittwater waterways and land within 25 metres of any tidal foreshore or Narrabeen Lagoon
Cultural	Protect Heritage Areas and Items from Unsympathetic Development	Social	A	Other land
			B	Within 50 metres of a Heritage item, Heritage area or National Park
			C	Heritage items, within a Heritage area or National Park

Composite Hazard (Bushfire, Climate Change, Coastal Estuarine, Flooding and Geotechnical) Map

Map Layer	Objective	Sustainability Link	Layer	Criteria
Bushfire	Protect Development from Bushfire Hazard	Social Economic	A	Other land
			B	Buffer Area
			C	Flame Zone
Flooding	Protect Development from Flood Hazard	Social Economic	A	Other land
			B	Land affected by PMF flood level only
			C	Land affected by 1% AEP flood level
Geotechnical	Protect Development from Geotechnical Hazard	Social Economic	A	Other land
			B	Areas of medium Geotechnical Hazard Area 2
			C	Areas of high Geotechnical Hazard Area 1
Acid Sulphate Soils	Restrict Development on Unsuitable Land	Environmental Economic	A	Land potentially affected by acid sulphate soils Classes 4 and 5
			B	Land potentially affected by acid sulphate soils Classes 2 and 3
			C	Land potentially affected by acid sulphate soils Class 1

Map Layer	Objective	Sustainability Link	Layer	Criteria
Climate Change Impact	Restrict Development in areas subject to Sea Level Rise and Increased Flood Risk due to Climate Change	Environmental	A	Land unaffected by Ocean/Estuarine/Flooding/Bushfire Processes
			B	Land partly affect by Flooding (PMF Only)/ Bushfire (Buffer Zone) Processes
			C	Land below the 4.0m AHD.
Coastal Processes	Protect Development from Ocean Processes Hazard	Social Economic	A	Properties unaffected by Coastal Hazard
			B	Nil
			C	Properties affected by Coastal Processes
Estuarine Processes	Protect Development from Estuarine Process Hazard	Social Economic	A	Properties unaffected by Estuarine Process Hazard
			B	Nil
			C	Properties affected by Estuarine Process Hazard

Composite Infrastructure (Centres, Public transport, sewer water) Map

Map Layer	Objective	Sustainability Link	Layer	Criteria
Proximity to Centres	Locate more Intensive Development forms near recognised Centres	Social Economic	A	Land within 400 metres of a town or village centre or within 200 metres of a neighbourhood centre
			B	Land between 400 and 800 metres distance from a town or village centre or between 200 and 400 metres of a neighbourhood centre
			C	Land more than 800 metres from a town or village centre or more than 400 metres from a neighbourhood centre
Proximity to Public Transport Links	Local more intensive forms of Development near to Public Transport Links	Social Economic	A	Land within 400 metres of a bus stop on a Public Transport Route
			B	Land between 800 and 400 metres from a bus stop on a Public Transport Route
			C	Land more than 800 metres from a bus stop on a Public Transport Route.
Sewer	Ensure availability of Services to Development	Social Economic Environmental	A	Land serviced by a Reticulated Sewage System
			B	Land NOT serviced by a Reticulated Sewage System
			C	Nil
Water availability	Ensure availability of Services to Development	Social Economic Environmental	A	Land serviced by a Reticulated Water System
			B	Land NOT serviced by a Reticulated Water System
			C	Nil
Road Network (Includes all development north of Bungan Beach)	Ensure availability of Services to Development	Social Economic Environmental	A	Land where the Arterial Road Network is upgradable
			C	Land where the Arterial Road Network is NOT upgradable

Source Data for Constraints Mapping

Biodiversity	A	Other Land		Pittwater Council - Natural Resources Unit
		Category 2 Bushland		Ecotone September 2009 - Pittwater Habitat Corridor Mapping
		Wildlife Corridors (Category 2)		Derived by Pittwater Council GIS Staff from NSW Dept of Lands Mean High Water Mark Cadastral Determinations
	B	Bed of Pittwater		
		Endangered Ecological Communities:		
		- Littoral Rainforest		Pittwater Council - Natural Resources Unit
	C	- Pittwater Spotted Gum		Pittwater Council - Natural Resources Unit
		- Freshwater Wetlands		Pittwater Council - Natural Resources Unit
		- Swamp Forest		Pittwater Council - Natural Resources Unit
		- Duffy's Forest		Pittwater Council - Natural Resources Unit
		- Salt Marsh		Pittwater Council - Natural Resources Unit
		- Themeda Grassland		Pittwater Council - Natural Resources Unit
		Category 1 Bushland > 400 sqm		Pittwater Council - Natural Resources Unit
		Wildlife Corridors (Category 1)		Habitat & Wildlife Corridors - Pittwater Council - December 1995 Pre July 2011 used Ecotone September 2009 - Pittwater Habitat Corridor Mapping - Not to be adopted.
		Seagrass Beds		NSW Fisheries August 2000
		Mangroves		Pittwater Council - Natural Resources Unit
		Tidal Flats		Pittwater Council - Natural Resources Unit
		National Parks		DECCW - National Park Estate
Slope	A	Land with Slope less than 15%		Derived by Pittwater Council GIS Staff via analysis of Digital Terrain Model provided by AAM Hatch Airborne Laser Scanning 2007
	B	Land with Slope between 15% - 25%		
	C	Land with Slope > 25%		
Proximity to Watercourses	A	Other Land		
	B	Within 40m of Major Watercourses and 20m of Minor Watercourse		Derived by Pittwater Council GIS Staff from NSW Dept of Lands Topographic Mapping
	C	Nil		
Ridgelines	A	Other land.		
	B	Within 50m of a secondary ridgeline or between 50-100m of major ridgeline or escarpment edge		Derived by Pittwater Council GIS Staff via analysis of Contours provided by AAM Hatch Airborne Laser Scanning 2007
	C	Within 50m of major ridgeline or escarpment edge.		
Foreshores and Waterbodies	A	Other Land		
	B	Land between 25 and 50 metres of any tidal foreshore or Narrabeen Lagoon		Derived by Pittwater Council GIS Staff from NSW Dept of Lands Topographic Mapping

	C	All of the Pittwater waterways and land within 25 metres of any tidal foreshore or Narrabeen Lagoon	
Cultural	A	Other land	
	B	Within 50 metres of a heritage item, heritage area or National Park	Heritage Items & Heritage Areas from Pittwater LEP 1993 as Amended. National Park from DECCW - Natioanl Park Estate
	C	Heritage items, within a Heritage area or National Park	
Bushfire	A	Other land	
	B	Buffer Area	Certified Bushfire Prone Land Map - Rural Fire Service July 2004
	C	Flame Zone	
Flooding	A	Other land	
	B	Land affected by PMF flood level only	Adopted Floodplain Studies conducted by various consultants 1990 - Present
	C	Land affected by 1% AEP flood level	
Geotechnical	A	Other Land	
	B	Areas of medium geotechnical hazard Area 2	GHD Longmac - Geotechnical Hazard Mapping of Pittwater - 2007
	C	Areas of high geotechnical hazard area 1	
Acid Sulphate Soils	A	Land potentially affected by acid sulphate soils Classes 4 and 5	Acid Sulphate Soils Planning Map - Dept of Planning 1997
	B	Land potentially affected by acid sulphate soils Classes 2 and 3	
	C	Land potentially affected by acid sulphate soils Class 1	
Climate Change Impact	A	Land unaffected by Ocean/Estuarine/Flooding/Bushfire Processes	
	B	Land partly affect by Flooding (PMF Only)/ Bushfire (Buffer Zone) Processes	As per Bushfire & Flooding
	C	Land affected by 1% AEP flood level	As per Flooding, Coastal Processes, Estuarine Processes & Bushfire
		Properties affected by coastal processes	
		Properties Affected by estuarine process hazard	
		Bushfire Flame Zone	
Coastal Processes	A	Land below the 4.0m AHD.	Derived by Pittwater Council GIS Staff via analysis of Contours provided by AAM Hatch Airborne Laser Scanning 2007
		Properties unaffected by coastal hazard	
		Nil	
Estuarine Processes	C	Properties affected by coastal processes	Pittwater Coastal Zone Management Area Map 97-003 - Adopted 1997
	A	Properties unaffected by estuarine process hazard	
	B	Nil	
	C	Properties Affected by estuarine process hazard	Lawson & Treloar - Estuarine Hazard Map 2002-20 - Adopted 2002

Proximity to Centres	A	Land within 400 metres of a town or village centre or within 200 metres of a neighbourhood centre	Derived by Pittwater Council GIS Staff based on the Centres defined in the SHOROC Metro Strategy
	B	Land between 400 and 800 metres distance from a town or village centre or between 200 and 400 metres of a neighbourhood centre	
	C	Land more than 800 metres from a town or village centre or more than 400 metres from a neighbourhood centre	
Proximity to Public Transport Links	A	Land within 400 metres of a bus stop on a public transport route	Derived by Pittwater Council GIS Staff based on Bus Route data available from STA & Forest Coach Lines websites. Bus Stop data from Council's Urban Infrastructure Asset Management System.
	B	Land between 800 and 400 metres from a bus stop on a public transport route	
	C	Land more than 800 metres from a bus stop on a public transport route.	
Sewer	A	Land serviced by a reticulated sewage system	Derived by Pittwater Council GIS Staff based on land within 75m of Sewer Network Data - Sydney Water 2008
	B	Land NOT serviced by a reticulated sewage system	
	C	Nil	
Water availability	A	Land serviced by a reticulated water system	Derived by Pittwater Council GIS Staff based on land within 225m of Watermain Data - Sydney Water 2008
	B	Land NOT serviced by a reticulated water system	
	C	Nil	
Road Network	A	Land where the arterial road network is upgradable.	RTA Advice - 2010
	C	Land where the arterial road network is not upgradable.	
Sea Level Rise	A	Land above 4.0m AHD	Derived by Pittwater Council GIS Staff via analysis of Contours provided by AAM Hatch Airborne Laser Scanning 2007
	C	Land below 4.0m AHD	

Appendix 3: Outcome of Land Capability Assessment

Sector ID	Address	AREA (m²)	Composite Classification	Applicable Map Layers	Detailed Environmental Constraints	To be tested	Reason	Comments
101	165-167 Warriewood Road	1566.5				YES		To be tested.
102	185 Warriewood Road	4560.7				NO	Criteria 1	Already zoned 4(b) - not designated residential sector under Planning Framework. Not to be tested.
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c, 16a Ponderosa Parade	8199.4				NO	Criteria 1	Already zoned 4(b) - not designated residential sector under 2010 Planning Framework. Not to be tested.
104	3 Harris Street & 16 Apollo Street	594.6				NO	Criteria 1	Designated as industrial/employment sector under 2010 Planning Framework. Not to be tested.
105	15 Jubilee Avenue	4561.8				NO	Criteria 1	Already zoned 4(b) - not designated residential sector under 2010 Planning Framework. Not to be tested.
201	4 Walana Crescent	1302.7	Class 2	Biodiversity & Cultural	Biodiversity - Cat B; 50m heritage (MV Cemetery).	NO	Criteria 1	Originally in Sector 20 however was not rezoned as part of Sector 20. Not included in 2010 Planning Framework. Site's isolation would be a concern. Not to be tested. Landowner may seek to lodge rezoning application.

202	14 Walana Crescent	4155.1	Eastern portion - Class 2 (Majority of site); Minor portion is Class 3; NW corner - Class 4	Biodiversity, Certified Bushfire Map, Ridgeline, Geotech, Slope, Hydrographic	Whole of the site is affected by Biodiversity B, Bushfire buffer area, 50-100m of major ridgeline or escarpment edge; Western portion is also affected by High Geotech Hazard Area 1, Slope 15-25%; NW corner of the Site is affected by Biodiversity C (highest order), Bushfire buffer area, High Geotech Hazard Area 1, within 40m watercourse (Fem Creek or tributary), Slope 15-25%.	NO	Criteria 1	Already zoned 2(f) as part of Sector 20 & was not included in 2010 Planning Framework as it was considered to be developed by way of the subdivision of Sector 20. Not to be tested.
203	3 Harrier Place	14678.6	Approx 50% is Class 3 (in 2 halves) dissected by Class 4 & 5	Biodiversity, Certified Bushfire Map, Sewer, Slope, Geotech, Slope, Water	Whole of the site is Biodiversity B, Bushfire buffer area, Not serviced by reticulated sewage system, Slope 15-25%, Not serviced by reticulated water system. Western portion (minor part of site) is also affected by Biodiversity C (Highest Order), High Geotech Hazard Area 1, secondary ridgeline (partially affected), Slope >25%.	NO	Criteria 1	Already zoned 2(f) as part of Sector 20 & was not included in 2010 Planning Framework as it was considered to be developed by way of the subdivision of Sector 20. Not to be tested.
204	79 Cabbage Tree Road	38642.9	Majority in Class 2, western portion in Class 3 (NB Abuts Classes 4 & 5 immediately west)	Biodiversity, Geotech, Slope, Certified Bushfire Map, Ridgeline	Majority of site is Biodiversity B, Medium Geotech Hazard 2, Slope 15-25% (minor part of site Slope >25%); Western portion is Biodiversity C (Highest Order), Bushfire buffer area & partially in Bushfire Flame Area, Medium Geotech Hazard 2, 50-100m of Escarpment Edge & secondary ridgeline (western half)	NO	Criteria 1	Originally in Sector 20 however was not rezoned as part of Sector 20. Not included in 2010 Planning Framework. Bayview Retirement Village on this site. Not to be tested. Landowner may seek to lodge rezoning application.
301	20 Macpherson Street	16657.1				YES		To be tested.
302	18 Macpherson Street	26225.7				YES		To be tested.
303	16 Macpherson Street	9078.6				YES		To be tested.

501	4 Forest Road	31049.6	Approx 85% in Class 3, Remainder in Class 2 (NE corner) & Class 4 (SW corner)	Biodiversity, Certified Bushfire Map, Ridgeline, Geotech, Slope,	Whole of site is in Bushfire buffer area & High Geotech Hazard 1. Majority of site is also Biodiversity B, Slope 15-25%; SW corner of site (minor component) also affected by Biodiversity C along southern boundary (Highest Order); 50-100m Escarpment Edge & secondary ridgeline (partially along southern boundary). Slope >25%.	YES		To be tested.
	8 Forest Road		Approx 90% in Class 2, Remainder in Class 3 & 4 (western boundary)	Biodiversity, Certified Bushfire Map, Ridgeline, Geotech, Slope, Hydrographic	Whole site is Biodiversity B, Bushfire buffer area. Minor part of site (west) also affected by High Geotech Hazard 1; Slope 15-25%. The Western & Southern boundaries also abut Biodiversity Cat C (highest order).	YES		To be tested.
702	10 Jubilee Street	9214.6				NO	Criteria 1	Designated industrial/employment under 2010 Planning Framework. Not to be tested.
801	23B Macpherson Street	11858.0				YES		To be tested.
802	5 Forest Road (Mater Maria)	37471.9	Approx 50% in Class 2 (south portion), Remainder in Class 3 & 4. West boundary abuts Class 5	Biodiversity, Certified Bushfire Map, Geotech, Slope, Ridgeline	Whole of site affected by Biodiversity B, Bushfire buffer area. Northern half is in High Geotech Hazard 1. Slope - southern portion not affected, remainder of site is 15-25% & western portion is >25%. Biodiversity C in 3 boundaries (except eastern boundary); Secondary ridgeline (minor affectation).	NO	Criteria 1	Originally in Sector 8 however was not rezoned as part of Sector 8. Not included in 2010 Planning Framework. Mater Maria School exists on site. Not to be tested. Landowner may seek to lodge rezoning application.
901	Lots 11, 12 & 13 DP 1092788 (Sector 8); 1, 2, 3, 4, 5, 9 & 10 Fern Creek Road; 2, 4, 6 Orchard Street & Orchard Street road reserve (2a, 4a, 6a & 8 Orchard Street)	143191.6				YES		Analysis undertaken in subsectors where similar environmental attributes existed (See Table and Map of Sector 901 subsectors shown at end of Appendix 3). Constraints applicable to specific locations only. Sector to be tested.

10A.1	115 Orchard Street (portion of property only in sector)	5566.0	Majority in Class 3, remainder in Class 2 (align eastern boundary), however immediately west is Biodiversity C (highest order)	Biodiversity, Certified Bushfire Map, Geotech, Slope	Whole of Site is Biodiversity B, Bushfire buffer area, Slope 15-25%. Western portion is High Geotech Hazard 1. Immediately west is Biodiversity C (highest order).	YES		To be tested.
10A.2	111, 111a & 113 Orchard Street (eastern portion of 3 lots in sector)	3767.8	Class 2, however immediately west is Class 4 & 5	Biodiversity, Certified Bushfire Map, Geotech, Slope	Whole of Site is Biodiversity B, Bushfire buffer area, Slope 15-25%. SW portion is High Geotech Hazard 1. Abuts Biodiversity Cat C (highest order).	YES		To be tested.
10B	109 Orchard Street	22334.2				YES		To be tested.
10C	194 Garden Street	11676.5	Class 2		Potential Acid Sulphate Soils Classes 2 & 3 - located at the south-eastern corner; Biodiversity Cat B; Bushfire Buffer Area;	NO	Criteria 1	Originally part of Sector 10, however was not rezoned with Sector 10. Not identified in 2010 Planning Framework. Retirement Village exists on site. No environmental constraints to development. Not to be tested. Landowner may seek to lodge rezoning application.
120 Mona Vale Road	120 Mona Vale Road	82948.5	>50% in Class 4 & 5, remainder in Class 3, however the Class 3 relates to no connection to sewer & slope constraint	Biodiversity, Certified Bushfire Map, Slope, Geotech, Ridgeline, Hydrographic, Sewer, Water	Whole of Site is Biodiversity C, High Geotech Hazard 1. Not connected to reticulated sewage system, Not connected to reticulated water system. Majority of Site is Slope 15-25% (with >25%), Bushfire Buffer Area. Western portion of Site is Bushfire Flame Zone & Fern Creek alignment. Secondary ridgeline (dissecting NW to SE).	NO	Criteria 3	Criteria 3 - significant environmental constraints affecting 50% of the site. Not to be tested. Landowner may seek to lodge rezoning application.
Buffer 1a	61 Warriewood Road	7700.1	Majority Class 2; Class 3	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1b	53 Warriewood Road	7504.3	Class 2	Biodiversity	Biodiversity B	YES		To be tested.

Buffer 1c	53a Warriewood Road	5616.1	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1d	53b Warriewood Road	446.5	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1e	53c Warriewood Road	4814.9	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1f	49 Warriewood Road	6511.7	Majority Class 2, Class 3	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1g	45 Warriewood Road	7281.9	Majority Class 2, Class 3	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1h	43 Warriewood Road	292.4	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1i	41 Warriewood Road	12336.6	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1j	31 Warriewood Road	12358.6	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1k	29 Warriewood Road	6658.4	Class 2	Biodiversity	Biodiversity B	YES		To be tested.

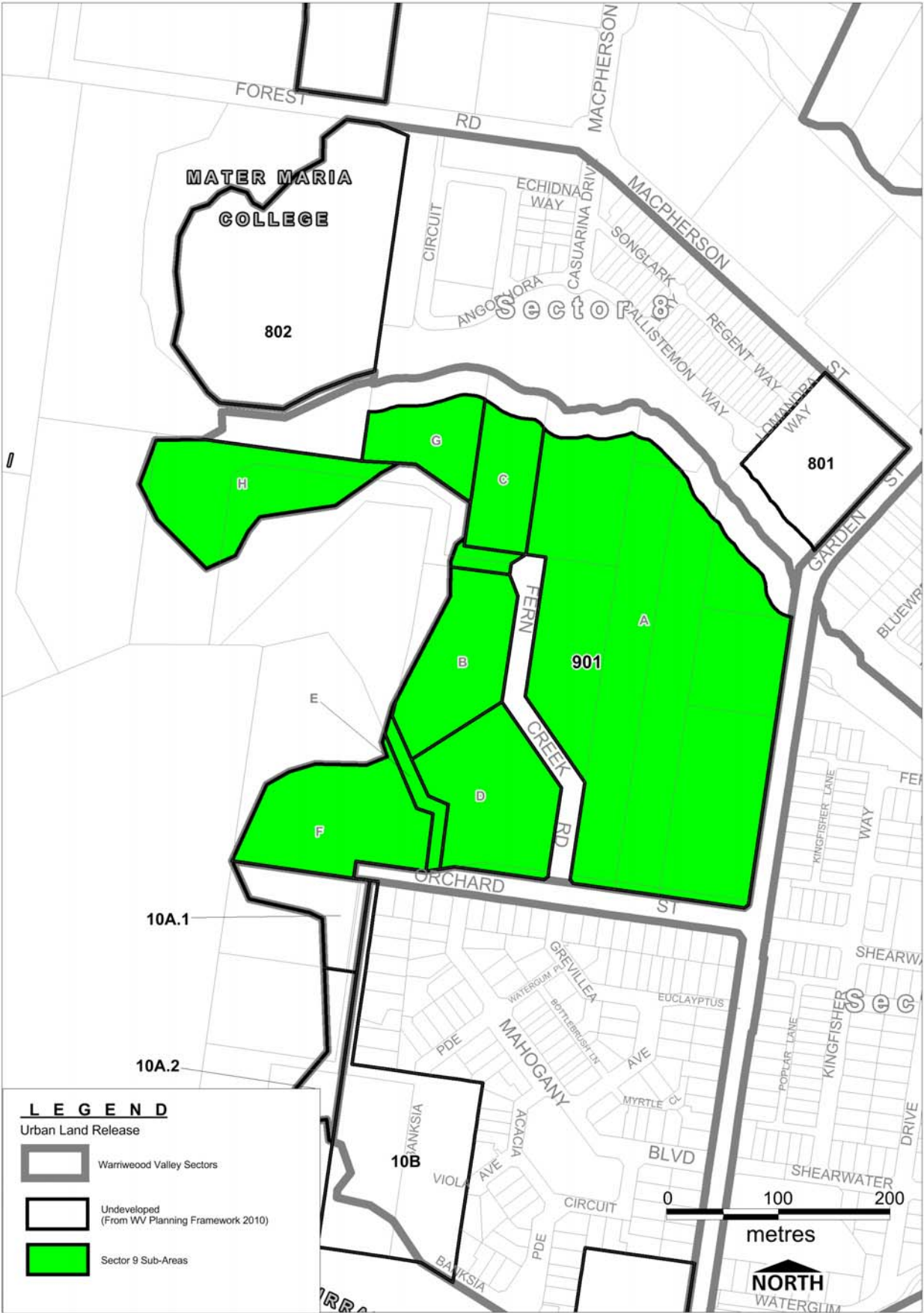
Buffer 1l	23, 25 & 27 Warriewood Road	21193.1	Class 2	Biodiversity	Biodiversity B	YES		To be tested.
Buffer 1m	2 Macpherson Street	15453.5	Class 2	Acid Sulphate & Biodiversity	Acid Sulphate B; Biodiversity B Final sieving stage (Hydrology Study) shows this sector has no development potential on its own.	NO		Outcome of Hydrology Study - no development potential on its own. Not to be tested.
Buffer 2a	4 Macpherson Street	12955.5	Class 2	Acid Sulphate & Biodiversity	Acid Sulphate B; Biodiversity B Final sieving stage (Hydrology Study) shows this sector has capacity to develop its own.	YES		Outcome of Hydrology Study - cut and fill balance on own site shows capacity to develop on its own. To be tested.
Buffer 3a	14-18 Boondah Road	74426.8	Majority Class 2; Class 3 (SW corner - Fern Creek & dissecting handle); Class 4 - dissecting handle with Class 3; remainder (NW corner) is Class 1.	Biodiversity, Certified Bushfire Map, Acid Sulphate, Hydrographic	Whole of Site is Biodiversity B. Majority of site is in Bushfire Buffer Area. SW (Fern Creek) & another portion dissecting site (At handle - Boondah Road) is also affected by Bushfire Flame Zone, Acid Sulphate, Fern Creek, and portion also Biodiversity C (highest order).	YES		Landowner requested for removal from Strategic Review however await outcome of Court proceeding to ensure site given equitable opportunity as other sites. Not to be tested following Land & Environment Court decision. No longer considered undeveloped.
Buffer 3b	5 & 7 Macpherson Street	2995.8				YES		To be tested.
SUBTOTAL		687848.6						

Due to the range of environmental constraints applicable to Sector 901, it was determined to identify areas (sub-sectors) with similar environmental attributes. The Table below must be read in conjunction with Map 13.

Sector 9 subsector ID	Address	Area (m ²)	Composite classification	Applicable map layers	Detailed environmental constraints	To be tested	Comments
901A	Lot 13 DP 1092788; 9 & 10 Fern Creek Road; 2, 4, 6 Orchard Street & Orchard Street road reserve (2a, 4a, 6a & 8 Orchard Street) - East side of Fern Creek Road including 9 Fern Creek Road	74034.2	Class 1 & 2 - No environmental constraints	Biodiversity, Slope	Slope Map - SW boundary in 15-25% & majority unaffected.	YES	Minor constraint to the north, includes 9 Fern Creek Road
901B	2 Fern Creek - west side of Fern Creek Road	11218.6	Class 2, however Biodiversity C (highest order) is located immediately west	Biodiversity, Slope	Biodiversity - Cat B; SW portion of site (minor) has Slope 15-25%. Immediately to west is Biodiversity Cat C (highest order).	YES	
901C	Lot 12 DP 1092788 (Sector 8) - west side of Fern Creek Road	6879	Class 2 - No environmental constraints	Biodiversity	Biodiversity B; SW corner of Biodiversity Cat C (highest order)	YES	
901D	1 Fern Creek Road - west side of Fern Creek Road	13,240	Approx 60% Class 4, Remainder in Class 2 (very minor - north point) & Class 3 dissecting Class 4 land	Biodiversity, Geotech, Slope	Majority in Biodiversity C (highest order), High Geotech Hazard 1, Slope 15-25%. Northern portion Biodiversity B.	YES	
901E	12 Orchard Street - battleaxe portion in Sector only	1,914	Class 3, however Biodiversity C on entire part of site	Biodiversity	Biodiversity C (highest order)	YES	

901F	14 Orchard Street - southern portion of site in Sector only	13,907	Majority in Class 2, eastern portion in Class 3	Biodiversity, Certified Bushfire Map	Majority in Biodiversity B; north-east portion in Biodiversity Cat C (highest order); western half in Bushfire Buffer Area.	YES	
901G	Lot 11 DP 1092788 (Sector 8) - west side of Fern Creek Road	6470	Class 2, however Biodiversity C (highest order) is located immediately south	Biodiversity	Whole of Site is Biodiversity B. Immediately south is Biodiversity C (highest order).	YES	
901H	4 & 5 Fern Creek Road (only northern portion in Sector) - west side of Fern Creek Road	13,934.6	Majority of bulb in Class 2, southern portion of bulb in Class 3	Biodiversity, Certified Bushfire Map, Geotech, Slope, Water	Whole of Site not connected to reticulated water system & Biodiversity B (NB. Middle portion of property - affecting access into that portion of property that is in the sector is Biodiversity Cat C); Majority in Bushfire Buffer Area; Southern portion of bulb in High Geotech Hazard 1 & Slope 15-25%.	YES	Access (middle portion of the site) not in sector & Class 3 due to Biodiversity C & Slope 15-25%

Map 13: Sector 901 Sub-sectors A - H



Appendix 4: Strategies for Provision of Infrastructure & Community Facilities

Source: *Warriewood Valley Planning Framework 2010*

STORMWATER MANAGEMENT FACILITIES PROVISION STRATEGY

Objective

To provide an overall stormwater management system which serves those areas within Warriewood Valley designated for urban development and ensures that stormwater does not adversely impact on private property, public land, or receiving waters.

Land to which this strategy applies

The strategy applies to all land in Warriewood Valley Urban Land Release area together with the residential and industrial/commercial areas of Stage 1 (of the Warriewood Valley Urban Land Release) released in 1986.

Note: In 1997, part of Sector 1 was zoned for light industrial use under the 1986 Warriewood Valley Stage One Release. Its inclusion in the land release as residential land follows from Council decision based on the premise that there should be no financial disadvantage to Council in terms of its existing and future Section 94 liabilities.

The strategy applies to all of the land shown on the map, in that the provision of the drainage and stormwater management facilities, while being located along or adjacent to major watercourses through the Valley, provide a shared level of amenity for all these undeveloped areas designated for urban development.

On this basis, provision of community water management facilities by developers (either direct or indirect) should be proportional to the number of dwellings to be developed in the residential areas regardless of location or sector. Contributions from remaining land undeveloped in the Stage 1 industrial/commercial areas and proposed new industrial/commercial areas at the northern end of the Valley should be on a per m2 basis.

Sector 20 is an isolated sector to the north of Mona Vale Road and drains towards Pittwater. As it is a single sector draining to independent receiving waters the implementation of stormwater management facilities and structures are isolated from those associated with the remaining development area and therefore should be treated independently and as part of the development process for that sector.

Combined use of land required for Stormwater Management Facilities

The Environmental and Demographic studies for the land release have identified a requirement for preservation of open space strips along natural watercourses flowing through the Valley including Narrabeen Creek, Mullet Creek and Fern Creek. These open space strips will need to include Stormwater Management structures designed in an environmentally sensitive way to achieve the combined objectives of both the Stormwater Management Strategy and the need to provide open space.

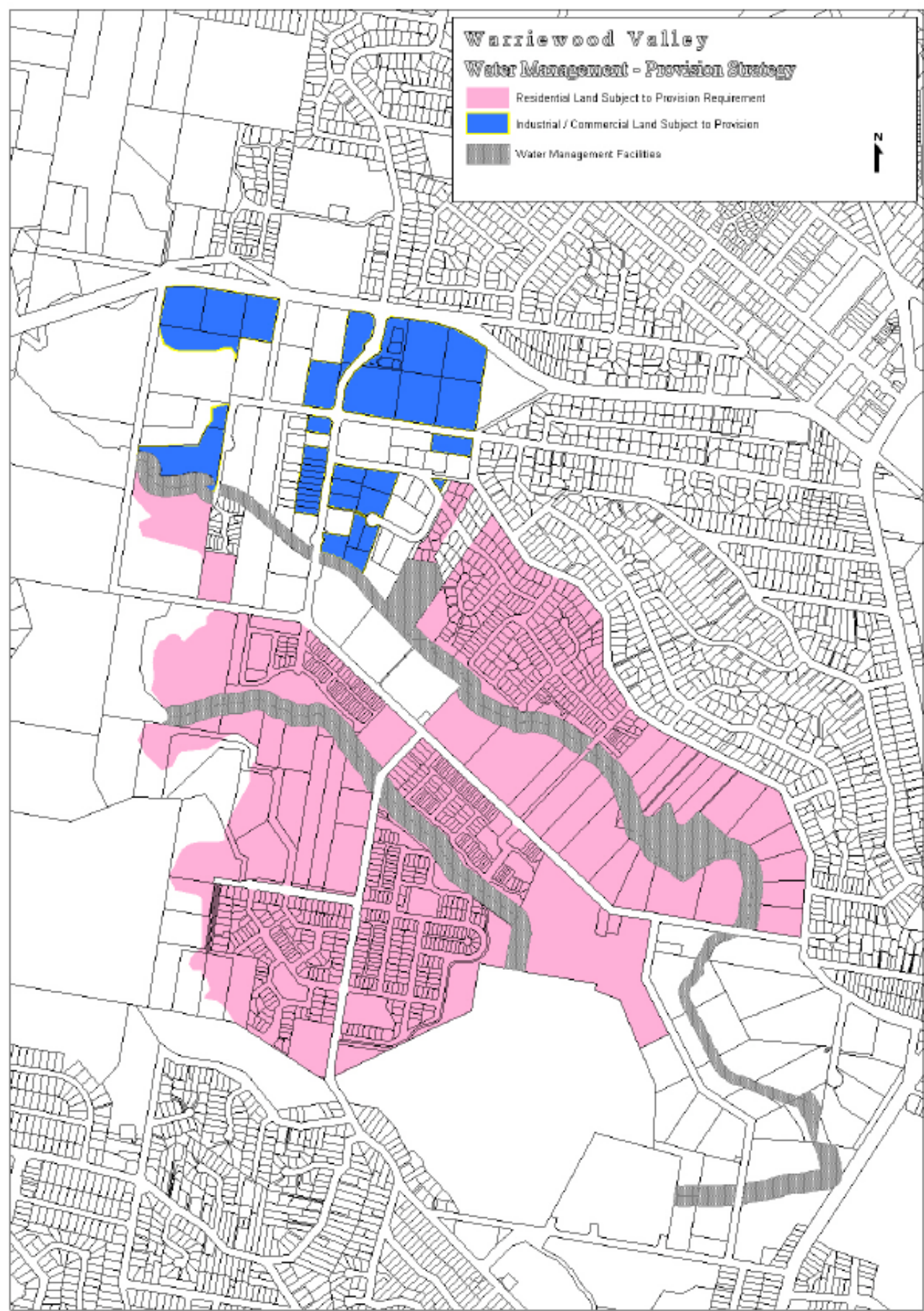
In this regard 30% of the land provided by residential development for the Stormwater Management Facilities can be credited towards open space contributions that would otherwise be required.

Opportunities for provision of facilities

Those sectors which have direct frontage to the water courses passing through the Valley allow an opportunity for developers to directly provide facilities. Remaining areas which are not adjacent to

watercourses (including the underdeveloped properties in the industrial/commercial area) can be levied through Section 94 Plan Contribution or offered an opportunity to construct facilities on land already acquired by Council to the value of the contribution that would otherwise be payable.

Figure 4: Water Management



TRAFFIC AND TRANSPORT PROVISION STRATEGY

Objective

To provide an overall traffic and transport management system which serves those areas of Warriewood Valley designated for urban development.

Land to which this strategy applies

The strategy would apply to all of the land in Warriewood Valley Urban Land Release with the exception of Sector 20, together with the industrial/commercial and residential areas of Stage 1 of Warriewood Valley released in 1986 in the northern sections of the Valley.

Note: In 1997, part of Sector 1 was zoned for light industrial use under the 1986 Warriewood Valley Stage One Release. Its inclusion in the land release as residential land follows from Council decision based on the premise that there should be no financial disadvantage to Council in terms of its existing and future Section 94 liabilities.

The strategy requires the provision of the traffic and transport facilities at a shared level of amenity for all those undeveloped areas designated for urban development.

On this basis provision of traffic and transport facilities by developers (either direct or indirect) should be proportional to the number of dwellings to be developed in the residential areas regardless of location or sector. Contribution from remaining land undeveloped in the Stage 1 industrial/commercial and residential areas at the northern end of the Valley together with the adjoining sectors designated for industrial/commercial development should be on a per m² basis and relate to the traffic generation capacity.

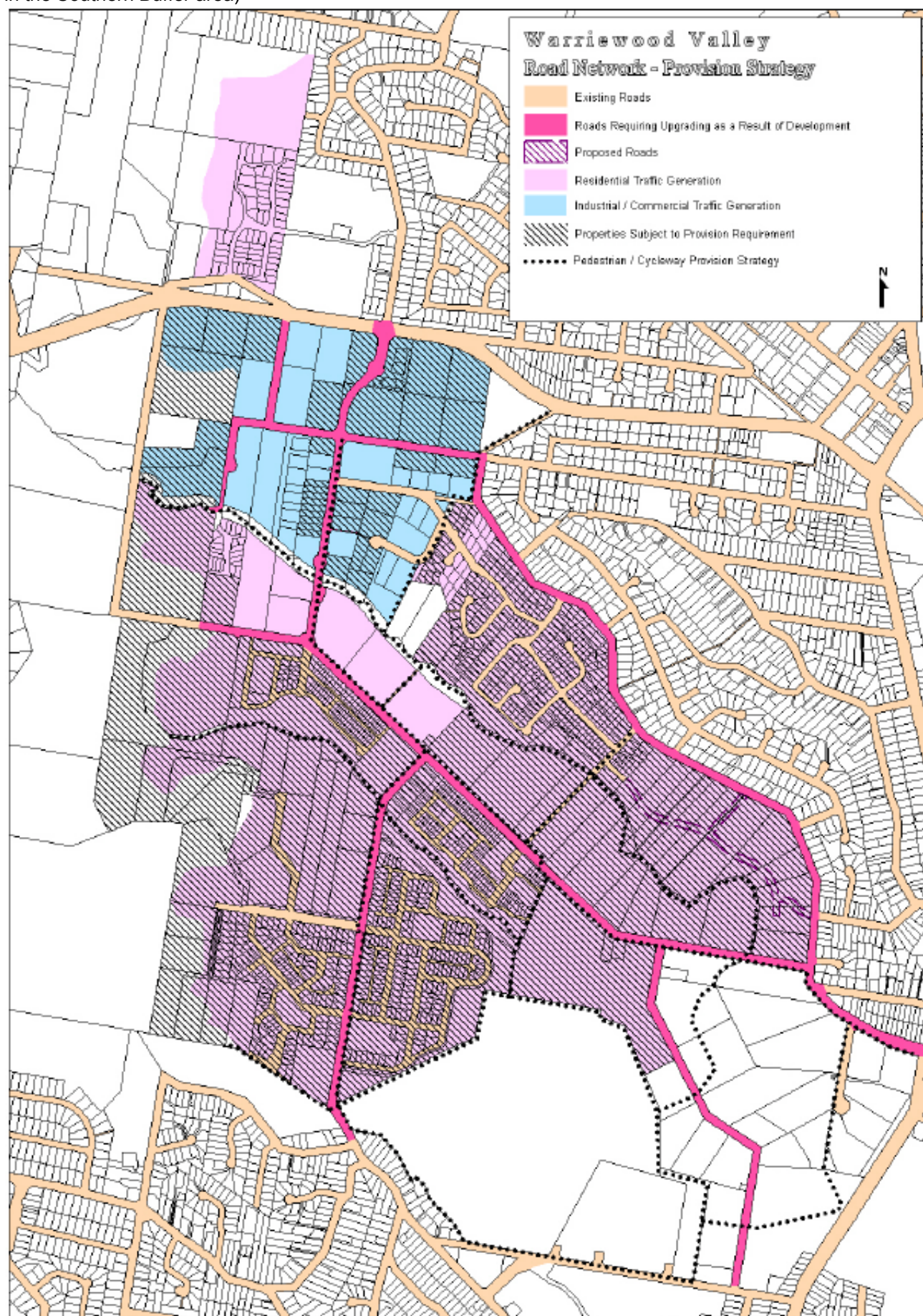
Sector 20 is an isolated sector to the north of Mona Vale Road. The implementation of its traffic and transport management facilities to service this sector is not associated with the remaining development area and therefore should be treated independently and as part of the development process for that section.

Opportunities for provision of facilities

All sectors that have direct frontage to road reserves where there is opportunity to directly provide facilities particularly half width road construction.

In addition to half road constructions there are significant opportunities for direct provision of traffic and transport facilities through construction of intersections, traffic control structures and bridges.

Figure 5: Road Network (Subject to change as a result of the Strategic Transport Study and future planning in the Southern Buffer area)



PUBLIC RECREATION AND OPEN SPACE PROVISION STRATEGY

Objective

To provide a public recreation and open space system which serves those areas within Warriewood Valley designated for urban development.

Land to which this strategy applies

The strategy applies to all of the land in Warriewood Valley Urban Land Release, in that the provision of public recreation and open space facilities provide a shared level of amenity for all these undeveloped areas designated for residential urban development.

Note: In 1997, part of Sector 1 was zoned for light industrial use under the 1986 Warriewood Valley Stage One Release. Its inclusion in the land release as residential land follows from Council decision based on the premise that there should be no financial disadvantage to Council in terms of its existing and future Section 94 liabilities.

On this basis provision of facilities by developers (either direct or indirect) should be proportional to the number of dwellings to be developed in the residential areas regardless of location or sector.

Land provided by multiple use facilities

The buffer areas, open space links and drainage facility areas provide a multiple use function. Where residential development has provided for these facilities it is appropriate to credit that contribution with a 30% factor in regard to open space requirements.

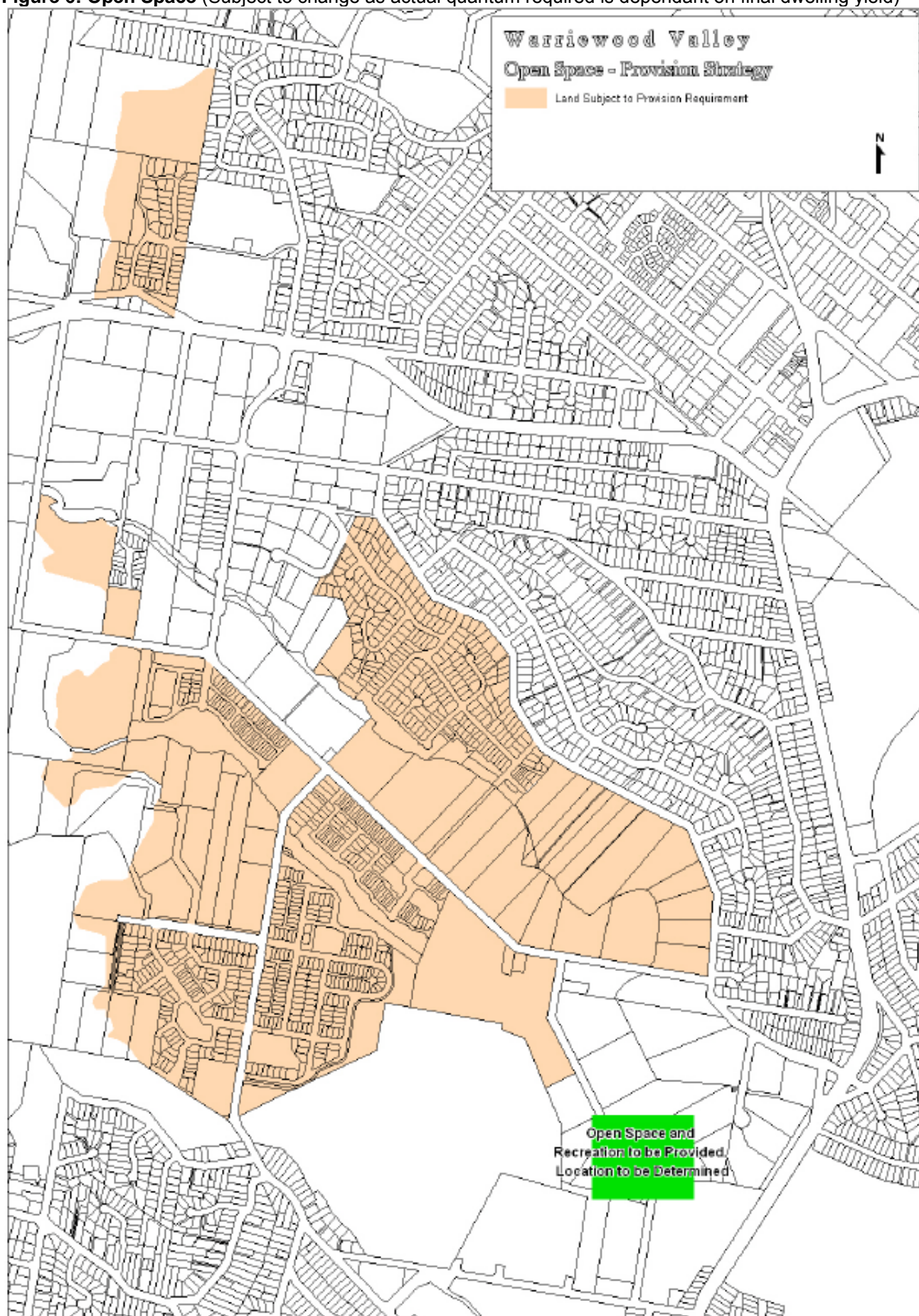
All proposed residential development has contributed to these facilities (in combination) other than Sector 20. In the case of Sector 20, offsets can be offered depending on the level of provision of these facilities at detailed planning and development application stage.

This principle may also be applicable to other sectors should land be proposed to be used in a way that will provide realistic multi-use open space functions (i.e. water management structures).

Opportunities for provision of facilities

Those sectors which have land suitable for public open space and recreation facilities provide an opportunity for developers to directly provide facilities. There is relatively limited opportunity in the early stages of development to directly provide recreation and open space as an open space plan specifying areas to be targeted for development will need to be produced.

Areas which cannot directly provide facility, can be levied through a Section 94 Plan Contribution or offered an opportunity to construct facilities on land already acquired by Council to the value of the contribution that would otherwise be payable.

Figure 6: Open Space (Subject to change as actual quantum required is dependant on final dwelling yield)

PEDESTRIAN AND CYCLEWAY NETWORK PROVISION STRATEGY

Objective

To provide an overall pedestrian and cycleway network which serves those areas within Warriewood Valley designated for urban development.

Land to which this strategy applies

The strategy would apply to all of the land in the Warriewood Valley Urban Land Release.

Note: In 1997, part of Sector 1 was zoned for light industrial use under the 1986 Warriewood Valley Stage One Release. Its inclusion in the land release as residential land follows from Council decision based on the premise that there should be no financial disadvantage to Council in terms of its existing and future Section 94 liabilities.

The strategy applies to all residential land in that the provision of a pedestrian cycleway network provides a shared level of amenity for all these undeveloped areas designated for residential development.

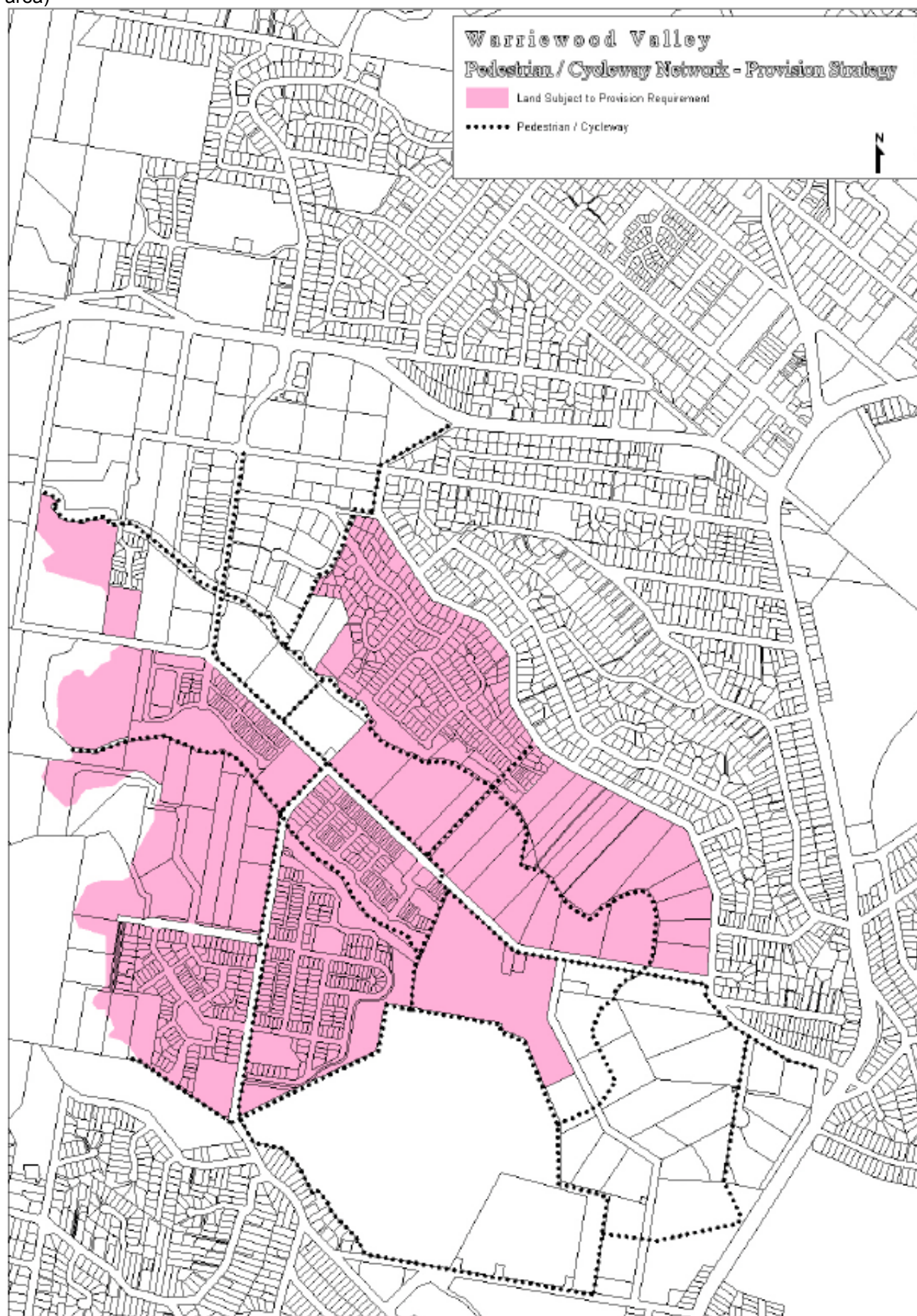
On this basis, provision of facilities by developers (either direct or indirect) should be proportional to the number of dwellings to be developed in the residential areas regardless of location or sector.

As Sector 20 is an isolated sector to the north of Mona Vale Road, the provision of this facility to service its future residents should be treated independently and as part of the detailed planning and development process for that sector.

Those sectors which provide an opportunity for developers to directly provide facilities will be encouraged to do so. In this regard the majority of sectors have an opportunity for direct provision.

Where facilities cannot be directly provide costs can levied through a Section 94 Contribution Plan.

Figure 7: Pedestrian/cycleway network (Subject to change, with future planning of the Southern Buffer area)



COMMUNITY SERVICES PROVISION STRATEGY

Objective

To provide an appropriate level of community service facilities which serves those areas within Warriewood Valley designated for urban development.

Land to which this strategy applies

The strategy would apply to all of the land in Warriewood Valley.

Note: In 1997, part of Sector 1 was zoned for light industrial use under the 1986 Warriewood Valley Stage One Release. Its inclusion in the land release as residential land follows from Council decision based on the premise that there should be no financial disadvantage to Council in terms of its existing and future Section 94 liabilities.

The strategy applies to all residential land in that the provision of community service facilities provide a shared level of amenity for all these undeveloped areas designated for residential development.

On this basis, provision of facilities by developers (either direct or indirect) should be proportional to the number of dwellings to be developed in the residential areas regardless of location or sector.

Appendix 5: Recommendations for Residential Densities

Sector ID	Address	AREA (m ²)	To be tested	Reason	2010 Planning Framework Density	Density recommended by Urban Design Study	2010 Planning Framework Yield	Yield as per Urban Design Study	Agreed Density	Agreed Yield	Additional Dwellings above 2010 Planning Framework	Comments
101	165-167 Warriewood Road	1566.5	YES		15/HA	26/HA	1	14	26/HA	4	3	Able to develop on its own.
102	185 Warriewood Road	4560.7	NO	Criteria 1	Industrial							
103	10c, 10d, 12a, 12b, 12c, 14a, 14b, 14c, 16a Ponderosa Parade	8199.4	NO	Criteria 1	Industrial							
104	3 Harris Street & 16 Apollo Street	594.6	NO	Criteria 1	Industrial							
105	15 Jubilee Avenue	4561.8	NO	Criteria 1	Industrial							
201	4 Walana Crescent	1302.7	NO	Criteria 1	NOT IDENTIFIED							Landowners may seek to lodge rezoning application.
202	14 Walana Crescent	4155.1	NO	Criteria 1	NOT IDENTIFIED							Landowners may seek to lodge rezoning application.
203	3 Harrier Place	14678.6	NO	Criteria 1	NOT IDENTIFIED							Landowners may seek to lodge rezoning application.
204	79 Cabbage Tree Road	38642.9	NO	Criteria 1	NOT IDENTIFIED							Landowners may seek to lodge rezoning application.

301	20 Macpherson Street	16657.1	YES		25/HA	38/HA	42	63	32/HA	53	11	Rezoning to be progressed to enable sector to develop at 32/HA
302	18 Macpherson Street	26225.7	YES		25/HA	37/HA	66	130	32/HA	84	18	HBO+EMTB recommends 302 & 303 amalgamate to achieve 37/HA density Rezoning to be progressed to enable each sector to develop at 32/HA
303	16 Macpherson Street	9078.6	YES		25/HA		23		32/HA	29	6	Rezoning to be progressed to enable each sector to develop at 32/HA
501	4 Forest Road	31049.6 (by itself 9823.78)	YES		25/HA	4/HA	75	4	32/HA	94	19	Rezoning to be progressed to enable sector to develop at 32/HA (any urban form, however need to develop as whole sector to achieve density) <i>Note: Exhibited report and Urban Design Study showed incorrect yield (99 dwgs).</i>
	8 Forest Road	21210.3	YES			42/HA			32/HA			
701	2 Daydream Street and 96 Mona Vale Road	9214.6	NO	Criteria 1	Industrial							
801	23B Macpherson Street	11858.0	YES		25/HA	51/HA	19	61	32/HA	38	19	Rezoning to be progressed to enable sector to develop at 32/HA <i>DA approved under Affordable Housing SEPP for 46 dwellings plus retail floor space, equating to approximate density of 39/HA</i>

802	5 Forest Road (Mater Maria)	37471.9	NO	Criteria 1	NOT IDENTIFIED								Landowners may seek to lodge rezoning application.
901	Lots 11, 12 & 13 DP 1092788 (Sector 8); 1, 2, 3, 4, 5, 9 & 10 Fern Creek Road; 2, 4, 6, Street & Orchard Street road reserve (2a, 4a, 6a & 8 Orchard Street)	143191. 6	YES		25/HA (with 15m street frontage) Note: Staff have previously recognised that some subsectors can only achieve 10/ha, other subsectors able to achieve up to 25/ha	29/HA	245 Note: Yield calculated on densities between 10/ha & 25/ha	420	Various See breakdown of sub-sectors below	264 See breakdown below	19 See breakdown below	Not yet rezoned to 2(f). Decision to separate Sector 901 into sub sectors on basis of distinct environmental constraints that apply to specific sub sectors. Agreed with HBO+EMTB to break up sector according to land capability, particularly as the eastern half can be progressed given no significant environmental constraints.	
901A	East of Fern Creek Road including Orchard Street road reserve (2a, 4a and 6a Orchard Street)	74034.2	YES		25	36/HA	156	263	32/HA	192 (No allocation on 9 Fern Creek Rd)	36	Rezoning to be progressed to 2(f) and enable individual properties to develop on own at 32/HA	
901B	2 Fern Creek (west side of Fern Creek Road)	11218.6	YES		25	39/HA	12	43	32/HA	36	24	Rezoning to be progressed to 2(f) and enable sector to develop on own at 32/HA	
901C	Lot 12 DP 1092788 (Sector 8) - west side of Fern Creek Road	6879	YES		25	Recommended to amalgamate with 901G to achieve 77/HA	17	102 (across 901C & 901G)	32/HA	22	5	Rezoning to be progressed to 2(f) and enable sector to develop on own at 32/HA	

901D	1 Fern Creek Road - west side of Fern Creek Road	13,240	YES		10	Proposed parkland	14	0		0	-14	Onus on landowners to bring forward rezoning application supported by necessary studies.
901E	12 Orchard Street (battleaxe portion in Sector only)	1,914	YES		10	Retain as battle-axe entry	2	0		0	-2	Onus on landowners to bring forward rezoning application supported by necessary studies.
901F	14 Orchard Street (southern portion of site in Sector only)	13,907	YES		10	8/HA	14	11	10/HA	14	0	Rezoning to be progressed to 2(f) and enable sector to develop on own at 10/HA
901G	Lot 11 DP 1092788 (Sector 8) - west side of Fern Creek Road	6470	YES		10	Recommended to amalgamate with 901C to achieve 77/HA	16	102 (across 901C & 901G)		0	-16	Onus on landowners to bring forward rezoning application supported by necessary studies.
901H	4 & 5 Fern Creek Road (only northern portion in Sector) - west side of Fern Creek Road	13,934.6	YES		10	1/HA	14	1	Retain exiting density	0	-14	Onus on landowners to bring forward rezoning application supported by necessary studies.
10A.1	115 Orchard Street (portion of property only in sector)	5566.0	YES		15/HA	No development potential due to bushfire buffer requirements	8	0	Retain exiting density	0	-8	Onus on landowners to bring forward rezoning application supported by necessary studies.

10A.2	111, 111a & 113 Orchard Street (eastern portion of 3 lots in sector)	3767.8	YES		15/HA	No development potential due to bushfire buffer requirements	6	0	Retain existing density	0	-6	Onus on landowners to bring forward rezoning application supported by necessary studies.
10B	109 Orchard Street	22334.2	YES		15/HA	20/HA	28	45	20/HA	45	17	Rezoning to be progressed to enable sector to develop at 20/HA
10C	194 Garden Street	11676.5	NO	Criteria 1	NOT IDENTIFIED							Landowners may seek to lodge rezoning application.
120 Mona Vale Road	120 Mona Vale Road	82948.5	NO	Criteria 1 & 3	NOT IDENTIFIED							Onus on landowners to bring forward rezoning application supported by necessary studies.
Buffer 1a	61 Warriewood Road	7700.1	YES		25/HA (with 15m street frontage @10/HA)	No density recommended – sector no longer considered undeveloped	17		Retain existing density	15 dwellings under construction	-2	Construction underway. Sector no longer considered undeveloped. No change to density.
Buffer 1b	53 Warriewood Road	7504.3	YES		25/HA (with 15m street frontage @10/HA)	Buffer 1b, 1c, 1d & 1e recommended to amalgamate to achieve 36/HA	17	66	32/HA	24	7	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1c	53a Warriewood Road	5616.1	YES		25/HA (with 15m street frontage @10/HA)		13		32/HA	18	5	Rezoning to be progressed to enable sector to develop at 32/HA

Buffer 1d	53b Warriewood Road	446.5	YES		25/HA (with 15m street frontage @10/HA)		1		32/HA	1	0	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1e	53c Warriewood Road	4814.9	YES		25/HA (with 15m street frontage @10/HA)		11		32/HA	15	4	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1f	49 Warriewood Road	6511.7	YES		25/HA (with 15m street frontage @10/HA)		14		32/HA	21	7	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1g	45 Warriewood Road	7281.9	YES		25/HA (with 15m street frontage @10/HA)	Buffer 1f, 1g, & 1h recommended to amalgamate to achieve 55/HA	17	75	32/HA	23	6	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1h	43 Warriewood Road	292.4	YES		25/HA (with 15m street frontage @10/HA)		1		32/HA	1	0	Rezoning to be progressed to enable sector to develop at 32/HA

Buffer 1i	41 Warriewood Road	12336.6	YES		25/HA (with 15m street frontage @10/HA)	Buffer 1i, 1j, & 1k recommended to amalgamate to achieve 53/HA	27				32/HA	39	12	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1j	31 Warriewood Road	12358.6	YES		25/HA (with 15m street frontage @10/HA)		26	165			32/HA	40	14	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1k	29 Warriewood Road	6658.4	YES		25/HA (with 15m street frontage @10/HA)		14				32/HA	21	7	Rezoning to be progressed to enable sector to develop at 32/HA
Buffer 1l	23, 25 & 27 Warriewood Road	21193.1	YES		25/HA (with 15m street frontage @10/HA)	32/HA	43	67			32/HA	67	24	Rezoning to be progressed to enable sector to develop at 32/HA.
Buffer 1m	2 Macpherson Street	15453.5	YES		No development potential						No development potential		0	Onus on landowners to bring forward rezoning application supported by necessary studies
Buffer 2a	4 Macpherson Street	12955.5	YES		Requires site specific design	22/HA (Option 1) 32/HA (Option 2)	20	29 (Option 1) 43 (Option 2)			22/HA	29	9	Rezoning to be progressed to enable sector to develop at 32/HA

Buffer 3b	5 & 7 Macpherson Street	2995.8	YES		HBO did not test (anomaly)	7	HBO did not test (anomaly)	32/HA	9	2	Rezoning to be progressed to enable sector to develop at 32/HA
DEVELOPABLE AREA		460002	TOTAL ADDITIONAL DWGS								193

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ATTACHMENT 6 – Council Report 9 Fern Creek Road Warriewood - Proposed Land Swap May 2014



SUBJECT: 9 Fern Creek Road Warriewood - Proposed Land Swap

Meeting: Sustainable Towns & Villages Committee

Date: 19 May 2014

STRATEGY: Corporate Management

ACTION: Manage Council's Commercial Activities

PURPOSE OF REPORT

To seek Councils approval to enter into formal negotiations with Australand for a proposed land swap of 9 Fern Creek Road Warriewood.

1.0 BACKGROUND

- 1.1 Council at its meeting on 21 April 2008 endorsed the acquisition of 9 Fern Creek Road Warriewood for the purpose of establishing a Large Local Park (refer **Attachment 1**).
- 1.2 The total area of the land is 1.155ha which includes the creekline component (see **Attachment 2**)
- 1.3 The acquisition price of the land in 2008 was \$4,000,000 and was funded from the Warriewood Valley Section 94 Plan
- 1.4 The acquisition of one hectare of land for the purpose of establishing a Large Local Park within Sector 9 of the Warriewood Valley Urban Release area was in accordance with the Council's adopted Section 94 Contributions Plan for Warriewood Valley, at the time, and was a key element of the pre-planning for the Warriewood Valley land release for many years.
- 1.5 The land was rezoned in line with its intended use as a Large Local Park, and it was appropriate that the land be classified as "Operational" land under the Local Government Act, 1993 upon acquisition, so as to not pre-empt the outcome of any future rezoning application.
- 1.6 The sector required some flexibility of land use depending upon the outcome of the master planning process for the Sector and how the park would fit into other developments. For this reason the "operational" classification provides the necessary flexibility required.
- 1.7 The 1ha Large Local Park is highlighted for 'future design to be carried out' in the current review of the Warriewood Valley Section 94 Plan that is currently on public exhibition.

2.0 ISSUES

- 2.1 In the interest of finalising the development of Sector 9 in Warriewood Valley, Council staff have taken a proactive role in helping to provide a better planning outcome. To this end Councils has engaged in discussions with all landowners that neighbour 9 Fern Creek Road, these properties include;
 - 11 Fern Creek Road (Australand)
 - 12 Fern Creek Road (Australand)
 - 13 Fern Creek Road (Australand)
 - 6 Orchard Street (Dragon Eye Properties)
- 2.2 In October 2013 Australand formally put a proposal to Council which would involve land swaps associated with Australand held lots in Warriewood Sector 9 and Councils Lot 5 DP 736961.

The proposal put forward would create an equivalent 1HA of public open space but more importantly also deliver this space as per Council's master-plan and vision for large public areas that links the creek into sector 8 (which was also developed by Australand) and provide the best possible urban design outcome for the community. Australand have been involved in development in Warriewood area for a number of years with the most recent development completed in 2009 which was sector 8. Australand are envisaging a 28 home development (subject to DA applications), which would be in line with the other completed sectors by Australand. The proposal is in **Attachment 3**. This proposed land swap would include the following aspects;

- Undergrounding of electrical cables
- Road, parking, stormwater & footpath construction
- A pedestrian bridge be built to connect to the playground in Sector 8
- Includes bike and walking paths as well as shade structures and bbq's

2.3 Since the approach by Australand, Dragoneye Properties (6 Fern Creek Road) have had a pre-lodgement meeting with Council's planning department. In order to facilitate a better planning outcome with respect to vehicular access from Garden Street to Fern Creek Road discussion have been held with Dragoneye Properties in order to properly locate a connection between these two roads. This connection is crucial to the overall future development of 2,4 & 6 Orchard Road including Australand owned land across Sector 9. **Attachment 4** provides an overview of the proposed layout by the adjoining land owners.

2.4 After these discussions, council's property, landscape design and planning assessment teams have been working together on a new concept design for the Large Local Park (**Attachment 3**).

2.5 Comments on Proposed Concept Plan by Planning & Assessment

The Concept Plan proposes a revised open space arrangement, with a more linear open space configuration on the southern side of Fern Creek. This proposal will be similar to the existing arrangement on the northern side of Fern Creek (within Sector 8), thereby achieving a more integrated and cohesive open space arrangement with the existing park. This arrangement will benefit both the quality of the open space and the future residential development, which will front onto it. The revised open space layout will also facilitate the improvement of the existing biodiversity connection between the Fern Creek corridor and Ingleside Chase Escarpment.

In adopting the *Warriewood Valley Strategic Review Report 2012* in June 2013, Council relinquished the 'sector-based' requirement for development within the Release Area, allowing the remaining undeveloped areas to be developed as separate land parcels.

Although this decision enables development of the majority of properties within the Release Area proceeding in a timely manner, it also has the potential to hinder the development of certain land parcels which, due to their lot layout and the configuration of the current road network, need to be developed with neighbouring properties to achieve access or necessary setbacks from environmentally sensitive land or hazards.

The current lot and road layout within Sector 9 makes any future development of 11, 12 and 13 Fern Creek Road difficult; these properties being landlocked with no frontage onto Fern Creek Road. Access for maintenance to these properties is currently via 9 Fern Creek Road through an arrangement with Council.

Based on the current layout, any development of 11, 12 and 13 Fern Creek Road would be reliant on a legal agreement (in the form of an easement) being reached with adjoining landowners who have a frontage onto this road.

The development potential of 11 Fern Creek Road and 13 Fern Creek Road is also limited not only by their lot configuration but also flooding and bushfire affectation and biodiversity constraints.

Sector 9 is currently served by vehicular access from Garden Street, Orchard Street and Fern Creek Road. The existing properties at 6 and 4 Orchard Street are long narrow lots that currently only have road access at their southern ends, therefore making them awkward to develop in isolation. The revised open space arrangement and subsequent improved road network will also result in improved access arrangements for these properties (**Attachment 4**).

The concept plan, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9 by integrating the open space with the existing park in Sector 8 and unlocking the development opportunity of the remaining portion of 9 Fern Creek Road and allowing development to be more appropriately positioned on surrounding properties.

2.6 Section 94 Requirements

As the existing 1ha (9 Fern Creek Road) was funded out of Section 94 funds Council is obliged to provide the equivalent and/or more land area in any land swap proposal. Any and all financial gain from the land swap would also be put back into the Warriewood Valley Section 94 Plan to fund additional parts of the plan

2.7 Way Forward

Due to the complex nature of the land holdings in question and the future development potential, the proposed negotiation process would include the following:

- Finalisation of the new layout of the Large Local Park
- The proposed landswap lots to be surveyed to assess future lot sizes and land transfers – to ensure that Council does not lose recreation area within the existing 1ha
- The appointment of a qualified valuer to assess and value the entire land swap taking all lots and future transfers into consideration
- Negotiations to be formally started with Australand
- Report to Council on the outcome of negotiations

3.0 SUSTAINABILITY ASSESSMENT

3.1 Supporting & Connecting our Community (Social)

The proposed landswap will create a better public amenity by providing a park that is aligned to the creek. The park will also provide further parking for the popular playground opposite in Sector 8.

3.2 Valuing & Caring for our Natural Environment (Environmental)

This proposed Large Local Park will create a large creek buffer of up to 50m wide to which the community will have access. Creekline works will also be carried out in the vicinity.

3.3 Enhancing our Working & Learning (Economic)

There is a potential economic benefit to this land swap taking place; this will be dependent on the valuation obtained and subsequent negotiations.

3.4 **Leading an Effective & Collaborative Council (Governance)**

The fact that the Council owned land was purchased using Section 94 funds means that any changes to the current ownership and/or layout needs to come out neutral and that the Warriewood community receives back an equal or greater benefit from the land swap.

3.5 **Integrating our Built Environment (Infrastructure)**

The concept plan, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9.

4.0 **EXECUTIVE SUMMARY**

- Council at its meeting on 21 April 2008 endorsed the acquisition of 9 Fern Creek Road, Warriewood for the purpose of establishing a Large Local Park.
- The total area of the land is 1.155ha which includes the creekline component.
- The acquisition price of the land in 2008 was \$4,000,000 and was funded from the Warriewood Valley Section 94 Plan.
- The acquisition of one hectare of land for the purpose of establishing a Large Local Park within Sector 9 of the Warriewood Valley Urban Release area was in accordance with the Council's adopted Section 94 Contributions Plan for Warriewood Valley, at the time, and was a key element of the pre-planning for the Warriewood Valley land release for many years.
- In October 2013 Australand formally put a proposal to Council which would involve land swaps associated with Australand held lots in Warriewood Sector 9 and part of Council's Lot 5 DP 736961. The proposal put forward would create an equivalent 1HA of public open space but more importantly also deliver this space as per Council's master-plan and vision for large public areas that links the creek into sector 8.
- The concept plan, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9 by integrating the open space with the existing park in Sector 8 and unlocking the development opportunity of the remaining portion of 9 Fern Creek Road and allowing development to be more appropriately positioned on surrounding properties.

RECOMMENDATION

1. That the General Manager be authorised to enter into negotiations with Australand relating to the proposed land swap and realignment of the Large Local Park (9 Fern Creek Road, Warriewood).
2. So that Council will not lose any existing benefit and community use from the land swap, the overriding principle of negotiations will be on an 'area for area' basis.
3. That a report be brought back to Council detailing the negotiation process and proposed transfer of lands.

Report prepared by

Paul Reid

MANAGER - COMMERCIAL, PROPERTY & PROJECTS

SUBJECT: Acquisition of land for District Park – Sector 9, Warriewood Valley Land Release**Meeting:** Council**Date:** 21 April 2008

EXECUTIVE SUMMARY

PURPOSE OF REPORT

To seek the Council's endorsement for the acquisition of land from Sector 9 of the Warriewood Land Release area for the purpose of establishing a District Park.

BACKGROUND

The pre-planning for the Warriewood Valley Urban Land Release has required the acquisition of one hectare of land in Sector 9 for the purpose of establishing a district park for many years.

ISSUES

- Identification of Suitable Land for Acquisition
- Acquisition Process & Classification of Land

FINANCIAL IMPLICATIONS

The Warriewood Valley Section 94 Plan has set aside funds for the acquisition of land within Sector 9 for the purpose of establishing a district park. For the financial sustainability of the Section 94 Plan, it is important that the acquisition process be completed in the short term given the increase in land values in the Warriewood Valley and the corresponding cost to the Plan if acquisition of the open space is unnecessarily delayed.

POLICY IMPLICATIONS

The acquisition of one hectare of land for the purpose of establishing a District Park within Sector 9 of the Warriewood Valley Urban Release area is in accordance with the Council's adopted Section 94 Contributions Plan for Warriewood Valley and has been a key element of the pre-planning for the Warriewood Valley land release for many years.

SUMMARY OF RECOMMENDATION

That the General Manager be authorised to complete the acquisition of land at 9 Fern Creek Road, Warriewood for the purpose of establishing a District Park in Sector 9 of the Warriewood Valley Urban Release area.

1.0 BACKGROUND

The pre-planning for the Warriewood Valley Urban Land Release has required the acquisition of one hectare of land in Sector 9 for the purpose of establishing a district park for many years.

2.0 ISSUES**2.1 Identification of Suitable land for Acquisition**

The Council's Warriewood Valley Team has assessed the suitability of a number of land parcels in Sector 9 of the Warriewood Valley Urban Release area that may be appropriate for acquisition by Council for the purpose of establishing a District Park. The location of a

site for a district park has been a major impediment to the progression of the draft Masterplan within Sector 9 of the Land Release area.

The Team has concluded that the land at 9 Fern Creek Road, Warriewood, currently owned by Stockland Development Pty Ltd, is the most appropriate available land in Sector 9 for that purpose.

The subject vacant land is currently zoned 1(b)(Non-Urban "B"). It has an area of 1.155ha. A survey and aerial photograph of the site is attached to the report.

2.2 Acquisition Process & Classification of Land

The Council engaged an independent valuation firm to assess the value of the subject land for the purpose of negotiating its acquisition from Stocklands. Negotiations have been held with Stocklands, who have indicated a willingness to dispose of the land. A confidential memorandum on the status of those negotiations is included as a confidential attachment to this Agenda.

As the subject land will need to be rezoned in line with its intended use as a district park, it is appropriate that the land be classified as "Operational" land under the Local Government Act, 1993 upon acquisition, so as to not pre-empt the outcome of any future rezoning application.

Similarly, the Sector needs to retain some flexibility of land use depending upon the outcome of the master planning process for the Sector which is currently underway. For this reason an "operational" classification provides the necessary flexibility.

3.0 FINANCIAL IMPLICATIONS

The Warriewood Valley Section 94 Plan has set aside funds for the acquisition of land within Sector 9 for the purpose of establishing a district park. For the financial sustainability of the Section 94 Plan, it is important that the acquisition process be completed in the short term given the increase in land values in the Warriewood Valley and the corresponding cost to the Plan if acquisition of the open space is unnecessarily delayed.

4.0 POLICY IMPLICATIONS

The acquisition of one hectare of land for the purpose of establishing a District Park within Sector 9 of the Warriewood Valley Urban Release area is in accordance with the Council's adopted Section 94 Contributions Plan for Warriewood Valley and has been a key element of the pre-planning for the Warriewood Valley land release for many years.

RECOMMENDATION

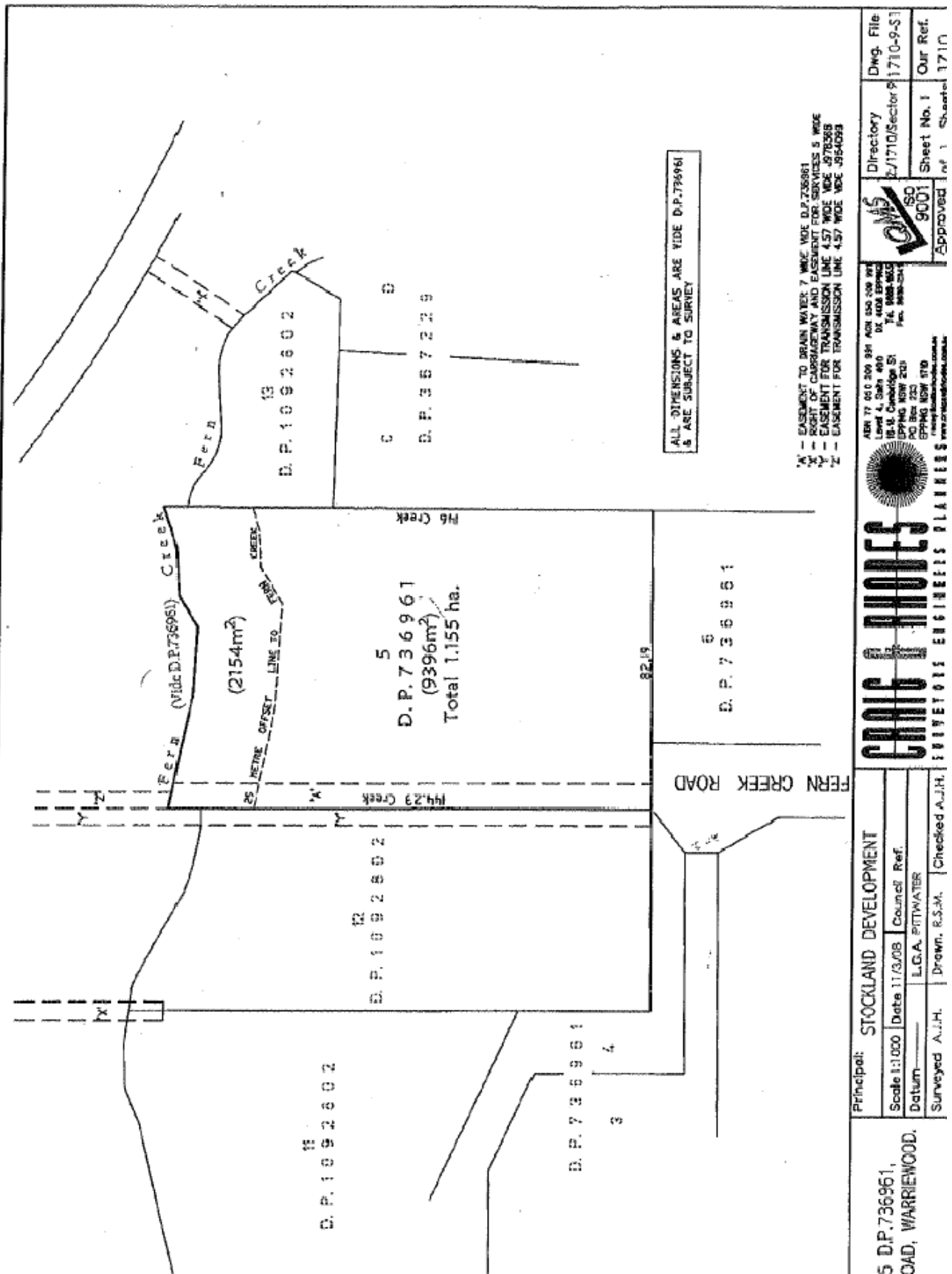
1. That the General Manager be authorised to complete the acquisition of land at 9 Fern Creek Road, Warriewood (Lot 5 DP 7369613) for the purpose of establishing a District Park in Sector 9 of the Warriewood Valley Urban Release area.
2. That the subject land be classified as Operational land under the Local Government Act, 1993 upon acquisition.
3. That the General Manager be authorised to sign and affix the Seal of Council to all relevant documentation.

Report prepared by

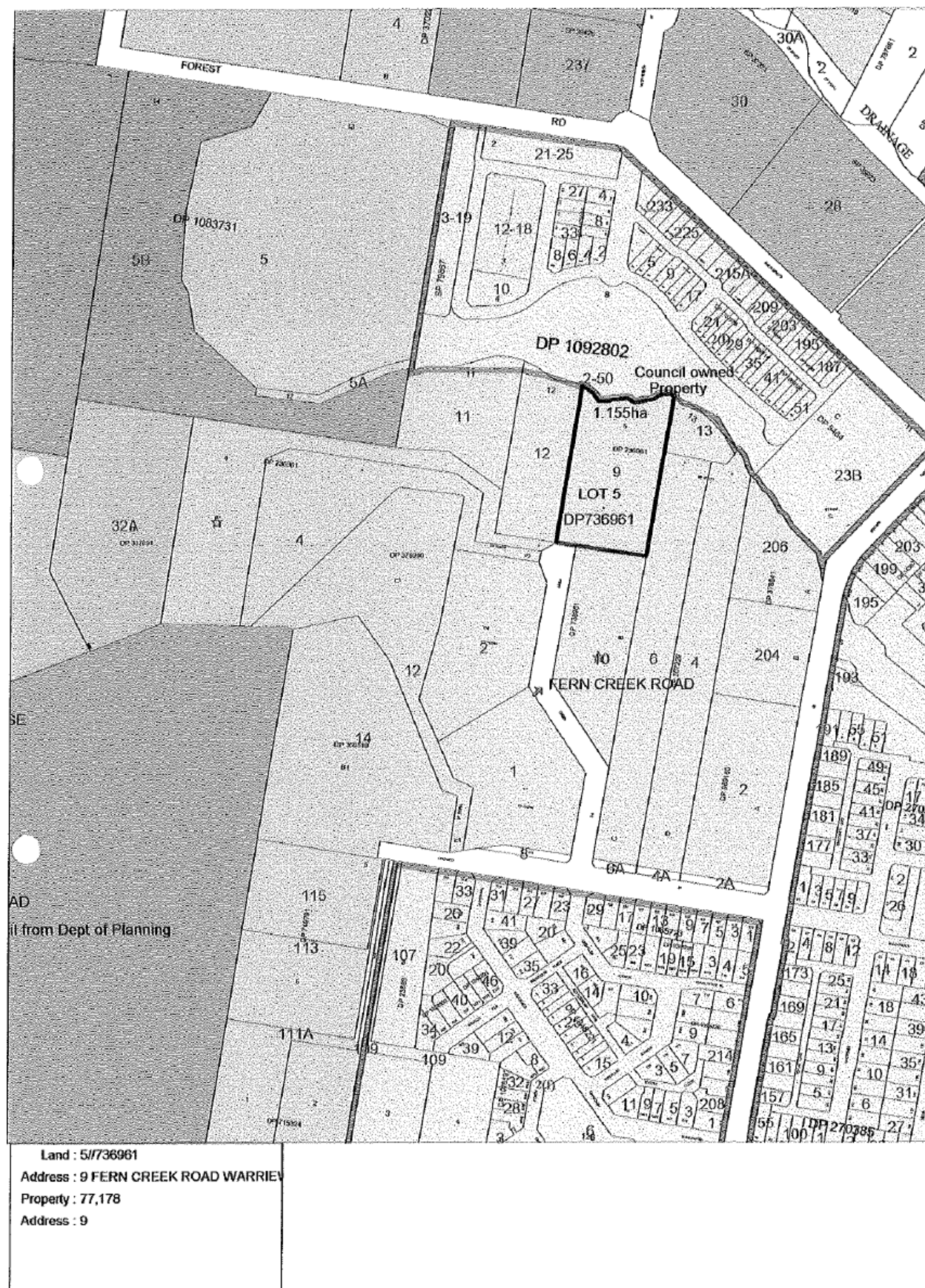
Steve Rawe
PROJECT MANAGER, COMMERCIAL

Attachment 1 (to 21.4.08 report)

Survey Plan of Lot 5, DP 736961 (9 Fern Creek Road, Warriewood)



LOCALITY MAP 9 FERN CREEK ROAD WARRIEWOOD



AERIAL PHOTOGRAPH





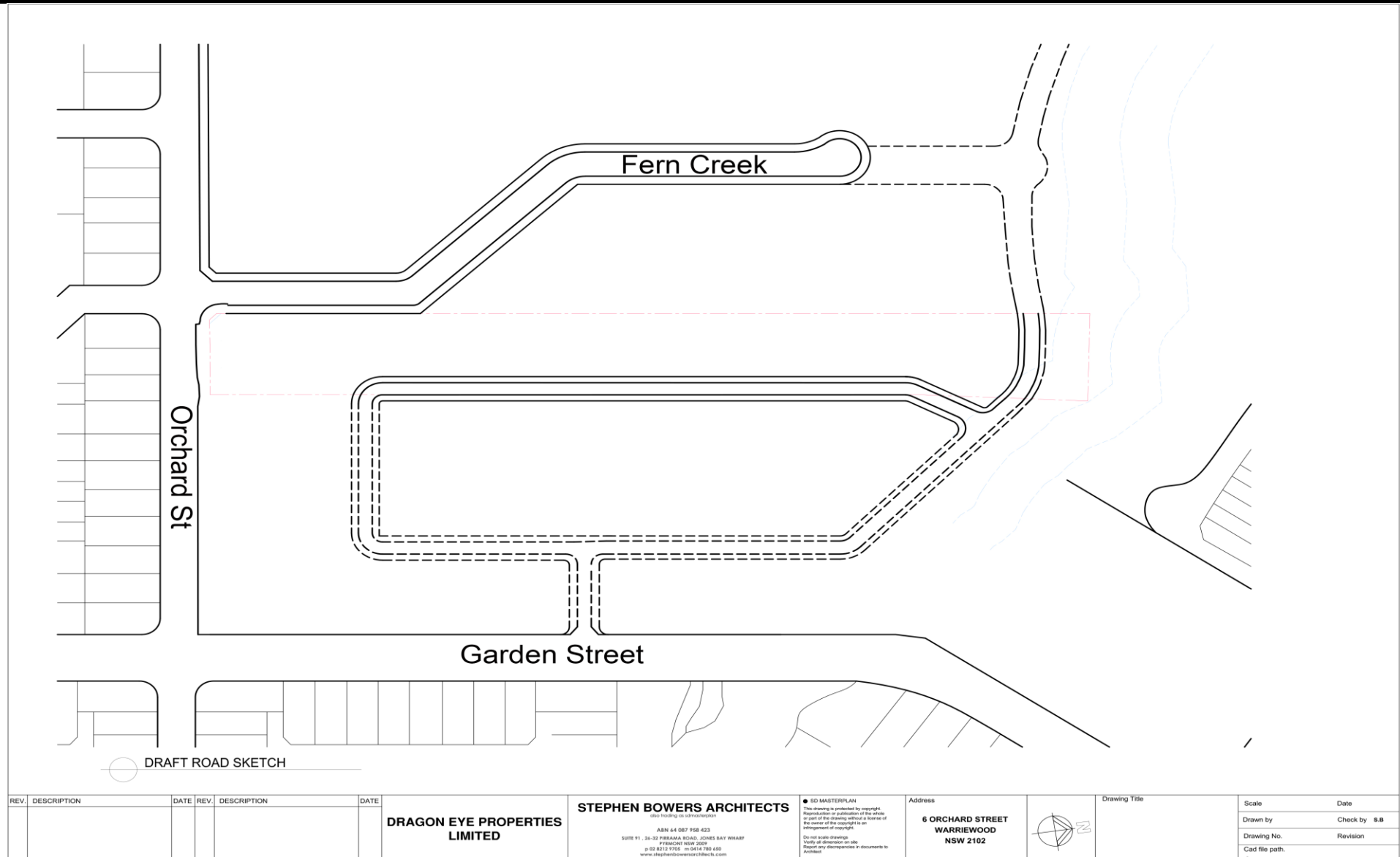


2014 SECTOR 8 & 9 OPEN SPACE MASTERPLAN - Concept Plan

SCALE 1:500 @ A0



PITTPATER COUNCIL



**ATTACHMENT 7 - Report Warriewood Valley Open Space-
Southern Component of Central Local Park (Sector 9) May
2015**



SUBJECT: Warriewood Valley Open Space- Southern Component of Central Local Park (Sector 9)

Meeting: Sustainable Towns & Villages Committee

Date: 18 May 2015

COMMUNITY STRATEGIC PLAN STRATEGY: Recreational Management

COMMUNITY STRATEGIC PLAN OBJECTIVE:

To develop, manage and maintain recreational facilities to best practice standards in a cost effective and sustainable manner

DELIVERY PROGRAM ACTION:

To provide planning, design, investigation and enhancement of recreational facilities

1.0 EXECUTIVE SUMMARY

The population increase associated with the Warriewood Valley urban land release generates a need for open space, including a combined 2 hectare Central Local Park (CLP) located within Sectors 8 & 9. The Warriewood Valley S94 Plan has been established to fund this outcome along with other open space and infrastructure requirements.

The northern half of this CLP has been provided in conjunction with the development of Sector 8. The southern half of the CLP is to be within Sector 9, with the intention that it tend to mirror the shape of the northern half.

In 2008 Council acquired 9 Fern Creek Road, an existing 1.15 hectare parcel of land in Sector 9 to facilitate the southern half of the CLP (refer **Attachments 1 and 2**).

It was acknowledged that the shape and location of this lot did not directly match the preferred final layout. As such when the land was acquired it was classified as Operational Land to provide future flexibility to change its shape which would involve a partial landswap.

In October 2013, Australand, the owner of land adjoining both sides of Council's 9 Fern Creek Road, formally put to Council a proposal to swap part of its land for part of Council's land to facilitate both the development of their land holdings as well as help to achieve the preferred open space layout.

More recently, Council has rezoned the remainder of the developable land in the Warriewood Valley land release and will now permit individual lots to develop in an attempt to encourage a faster rate of development. A number of lots in Sector 9 are now the subject of Development Applications and as such it is important to conclude an outcome for the southern half of the CLP.

This report outlines the landswap proposal and the community engagement carried out and recommends that the concept layout plan be endorsed and negotiations take place with the adjoining land owner, Australand, to progress this outcome.

Should the landswap be formally agreed and proceed in accordance with the Memorandum of Understanding(MOU), then a rezoning of relevant components of both Council and private land would need to occur as well as land and financial transactions concluded.

2.0 RECOMMENDATION

1. *That the Concept Layout Plan for the Central Local Park, in particular the southern half located within Sector 9 be endorsed as the preferred layout and the General Manager be authorised to enter into negotiations with Australand, the owner of the adjoining lands to progress this outcome.*
2. *That the transaction be captured by a Memorandum of Understanding between the parties and be based on the following:*
 - *The creekline corridor acquisition is completed as a separate financial transaction as per the S94 Plan prior to the landswap to establish net areas of land involved*
 - *an area for area swap of land so that the net open space compared to the current rectangle is not reduced*
 - *the valuation of the lands to be swapped being based on highest and best use*
 - *a financial adjustment to be made noting the difference in land valuations*
 - *the Under-grounding of the overhead power where practical as per Ausgrid requirements*
 - *The direct provision of full width road infrastructure (excluding parking bays on the reserve side) by Australand*
 - *The land being swapped to be rezoned to be consistent with the intended future land use. In this regard:*
 - I. the part of the land owned by Council currently zoned recreational would be rezoned to residential with a potential yield of 32 dwellings per developable hectare*
 - II. the part of the land owned by Australand currently zoned for residential would be rezoned to recreational and the adjoining land not being swapped provided a pro-rata development potential where this is already a lower fixed yield*
3. *That an updated valuation be obtained from an independent Valuer to ascertain the likely land values of the various parcels involved in the overall transaction.*
4. *That a probity advisor be appointed to oversee and report on this transaction,*
5. *That a report be brought back to Council detailing the negotiation, the Memorandum of Understanding and the financial aspects of the transaction.*

3.0 BACKGROUND

3.1 PURPOSE

To endorse the Concept Layout for the Central Local Park, in particular the southern half located in the northern part of Sector 9 of the Warriewood Valley land release.

To enter into formal negotiations with Australand, the adjoining landowner, with the intention of a swap of lands to achieve this open space outcome as well as a more orderly and functional land use outcome.

3.2 BACKGROUND

The population increase associated with the Warriewood Valley urban land release generates a need for open space, including a combined 2 hectare Central Local Park (CLP) located within Sectors 8 & 9 that would straddle Fern Creek. The Warriewood Valley S94 Plan has been established to fund this outcome along with other open space and infrastructure requirements.

The northern half of this CLP, which has a linear shape with central bulge, has been provided in conjunction with the development of Sector 8, including the playground component (Rocket Park). The southern half of the CLP is to be within Sector 9, with the intention that it tend to mirror the shape of the northern half with the Fern Creek creek line corridor through the middle as a central environmental feature.

Unlike Sector 8, where the park and residential housing were master-planned and provided at the one time, development of Sector 9 as a whole sector had not progressed. In 2008 the opportunity arose to acquire 9 Fern Creek Road, an existing 1.15 hectare parcel of land in Sector 9 to facilitate the southern half of the CLP. This was an existing rectangular lot, being part of the pre-existing non-urban lot layout and included a component of the creekline corridor. The net area of the land, exclusive of the creekline corridor is approx. 9,300sqm. Council resolved to acquire this land and this transaction was completed.

It was acknowledged that the shape and location of this lot did not directly match the preferred final layout. As such when the land was acquired it was classified as Operational Land to provide future flexibility to change its shape in conjunction with the future master-planning and rezoning of Sector 9. This would also need to involve adjoining land owners and some form of landswap(s) and rezoning.

In October 2013, Australand, the owner of land adjoining both sides of Council's 9 Fern Creek Road, formally put to Council a proposal to swap part of its land for part of Council's land to facilitate both the development of their land holdings as well as help to achieve the preferred open space layout. In this regard it is noted that Australand developed Sector 8 (to the north of Fern Creek) which contains the northern component of the CLP. This proposal was reported to Council 19 May 2014 and Council resolved:

1. *That Council give in principle support for the development of a large local park in Sector 9 of Warriewood Valley.*
2. *That the General Manager enter into discussions with surrounding land owners with a view to achieving an understanding of the possibilities within that area.*
3. *That Lot 5 / DP 736961 be valued at its highest and best use.*
4. *That at the conclusion of discussions, and before reaching a final agreement, the General Manager is to report back to Council.*
5. *That in parallel to the General Manager's negotiations that community consultation is undertaken with residents of Warriewood Valley and any other interested parties with regard to a large local park.*

Council has rezoned the remainder of the developable land in the Warriewood Valley land release and will now permit individual lots to develop in an attempt to encourage a faster rate of development, however, there is still a preference for larger land holding to combine. A number of lots in Sector 9 are now the subject of Development Applications and as such it is important to conclude an outcome for the southern half of the CLP.

The subject Council land (existing rectangular lot) was zoned recreational so as not to pre-empt a future landswap. The 1ha Large Local Park was highlighted for 'future design to be carried out' in the current review of the Warriewood Valley Section 94 Plan (S94 Plan).

Should the landswap be formally agreed and proceed, then a rezoning of relevant components of both Council and private land would need to occur.

3.3 POLICY IMPLICATIONS

Warriewood Valley S94 Plan and associated Open Space Masterplan.

3.4 RELATED LEGISLATION

Local Government Act, 1993 relating to dealing in Council-owned land

3.5 FINANCIAL ISSUES

3.5.1 Budget

Should the recommended landswap proceed, each party will pay their reasonable share of the costs. Council's costs will be recouped from the Warriewood Valley S94 Developer Contributions Plan. In addition, if the landswap results in a net cash settlement to Council, this will be reinvested into the S94 Plan to assist with achieving the remaining outcomes for the land release, noting that the S94 Plan paid for the purchase of the subject rectangular lot.

3.5.2 Resources Implications

The proposal can be accommodated by and is consistent with the Warriewood Valley S94 Plan and associated Masterplans. Any net residual financial return will be reinvested in the S94 Plan to help fund the overall outcomes to be achieved, in particular other identified open space outcomes.

4.0 KEY ISSUES

4.1 Section 94 Requirements

The S94 Plan and the Open Space Strategy clearly articulate the need for provision of open space in Warriewood Valley as part of the urban land release

In accordance with this need, the acquisition of 9 Fern Creek Road was funded from the Warriewood Valley S94 Plan. Council is therefore obliged to provide the equivalent area of open space land in any landswap proposal. Any financial gain from the landswap would also be put back into the Warriewood Valley S94 Plan to help fund Plan outcomes.

4.2 Existing proposal

In October 2013 Australand put a proposal to Council which would involve swapping parts of land associated with Australand held lots in Warriewood Valley Sector 9 and part of Councils Lot 5 DP 736961.

The proposal would create an equivalent area of public open space but more importantly better align with the intended shape of the Central Local Park and its recreational and environmental setting. It will also provide for a more orderly and functional land use outcome, including a more logical and better configured internal road network, consistent with the desired overall outcome for Sector 9 has it developed as one entity.

4.3 Consultation with Warriewood residents

Consistent with Council's resolution of 19 May 2013 the community engagement has included:

- 4100 flyers letter box dropped to every household in Warriewood as well as mailed to assumed absentee owners (those with a different postal address to their home address)
- The flyer included notification of the public meeting as well as the Draft Concept Plan and associated details

- Notification of the public meeting was posted on Councils website as well as advertised in Council's bi-weekly update in the Manly Daily.
- The public meeting was held on site on 17 October 2014
- A meeting was held with WRA relating to their alternate proposal and concerns

4.4 Outcomes of Consultation

From the feedback from residents relating to the flyer and the feedback gained from the public meeting the following primary issues were raised:

- Concern that Council would lose land for recreation purposes
Response – there would be no loss of recreational land with the minimum requirement being land area for land area.
- Concern that Council would be giving away valuable and developable land to private interests at a loss.
Response – Council will not be giving away valuable and developable land - all land parcel involved in the landswap will be subject to a formal valuation that will take into consideration the highest and best use, in particular development potential of these individual parcels. A financial adjustment will be made having regard for any potential difference in land valuations.
- Concern that the linear shape proposed for the park would not accommodate the recreational needs of the existing and future community, as it would be too small or too narrow.
Response – the proposed parkland in conjunction with the northern half will suitably accommodate a broad range of recreational needs. It should be noted that the southern half of the CLP was never intended to be an active sports oval that as a guide would need a structured field with a width of 50 metres and a length of 100 metres with associated run-out areas, carpark and amenities. In comparison, the grassland component of the proposed parkland has a general width of 45 metres (inside of perimeter path) and is over 200 metres long with an approx. 500 metre long perimeter path for walking/cycling – this is more than adequate to play informal ball sports, fly a kite, exercise, picnic, walk/cycle, etc. The overall parkland is over 300 metres long which in turn provides a gateway to the Ingleside Chase Escarpment Reserve at its western end and connects with the intended bushland trails. The fire trail connection will also double as another walking /cycling circuit
- What the rate of provision for open space including active and passive recreation in Warriewood Valley under the S94 Plan?
Response – the recent amendment to the Warriewood Valley S94 Plan provides a schedule of the quantum of open space and its spatial distribution. As part of the open space network, the Central Local Park is located within Sectors 8 & 9 and is intended to be 2 hectares (approx. 1ha to the north of Fern Creek and approx. 1ha to the south)
- What facilities will be provided in the park? For example will there be toilets, walking paths, grassed areas for play or dog off-leash areas?
Response – the southern half of the CLP is intended to be complementary to the northern half not a duplication. Both halves of the CLP will be connected via a centrally located shared path bridge over Fern Creek. There will be a toilet facility in the northern half at the playground in close proximity to the bridge and as such there will not be another toilet facility in the southern half. The intention is to provide large areas of open grassland with a perimeter pathway, picnic shelters with BBQs, roadside parking and landscaping in keeping with this recreational setting and environmental
- Can Council keep the existing land and buy more to provide more open space especially if densities keep going up?
Response – the S94 Plan is already under financial pressure to deliver open space and infrastructure outcomes and there is no scope to keep the existing land holding and buy more land. It needs to be appreciated that the combined area of open space associated with the CLP exceeds 2 hectares with a range of recreational opportunities that can be accommodated

- Will play area be taken up by carparking? How will carparking be provided and who will use it?

Response – Carparking is a necessary part of the infrastructure for open space and this will be provided as part of the recreational land as was the case with northern component of the CLP. This is the case whether the rectangular lot remained or the preferred configuration is achieved

Subsequent to the on-site meeting, concern was raised over the accuracy of the pickets and tape that Council had installed to mark out the shape of the land under consideration. It was confirmed that while the plan survey was correct, there was a 5m overestimation in the field of the width of the park relative to the creekline corridor/centreline. This had arisen as a result of the creek centreline having been adjusted as part of the Sector 8 creekline corridor rehabilitation. This can also be seen on the Deposited Plan where the Council lot northern boundary juts further to the north compared to the land adjoining. These anomalies have now been taken into consideration.

4.5 **Assessment of Proposal developed by Warriewood Resident Association (WRA)**

After ongoing interaction and engagement with WRA, the resident association developed a proposal and put this to council staff for consideration. Council staff met with WRA on numerous occasions to discuss the details of their proposed concept. After meeting with WRA, council staff assessed the WRA proposal as part of the final proposed concept plan.

4.6 **Discussion with neighbouring Land Owners**

Consistent with Council's resolution of 19 May 2013, Council staff engaged in discussions with the owners of the following properties that neighbour 9 Fern Creek Road:

- 11 Fern Creek Road (Australand)
- 12 Fern Creek Road (Australand)
- 13 Fern Creek Road (Australand)
- 4 Fern Creek Road (Private owner)
- 5 Fern Creek Road (Private owner)
- 2 Fern Creek Road (ABAX Developments)
- 6 Orchard Street (Dragon Eye Properties)

This provided an opportunity to discuss the proposal, how this could be accommodated within the Sector 9 component of the land release and consider other pertinent issues or alternatives. Through this more specific stakeholder engagement no other viable alternative was developed and as such the proposal that involves a landswap with Australand remains as the preferred outcome.

4.7 **Recent Developer Interest in Sector 9 (Recent Planning Applications)**

Since the approach by Australand, there has been a number of development applications received for development of land in Sector 9 which in part also include consideration of a potential landswap and road connection over Council's land. It is therefore now imperative that there be certainty for Sector 9 as to the final layout of the parkland as well as the land to be swapped for housing development/road infrastructure outcomes

4.8 **Final Proposed Concept Plan**

Details of Proposed Concept

The proposal involves swapping the southern portion of the land that Council purchased to facilitate the southern half of the CLP with other privately-owned land. Through this swap the privately owned land acquired will be rezoned to recreational and conversely the recreational land that the developer will acquire will be rezoned to residential. The land will be valued at its highest and best use not just its current zoning. The total area of future parkland will remain as large as the current Council land-holding. The Final Proposed Concept Plan is shown in **Attachment 3**.

After considerable engagement with residents and Warriewood Residents' Association, the proposed concept has been modified and is intended to include the following characteristics:

- No net loss of open space compared to rectangular lot
- Provision of a large open grassed area to kick a ball, exercise or fly a kite
- sheltered picnic tables/BBQs
- perimeter paths to walk or ride a bike – the perimeter path has been pushed to the extents of the open space that will result in approximately 8,000m². This will facilitate a width of approximately 50m of open space.
- a new bridge over Fern Creek connecting the southern half and northern half of the CLP
- perimeter car parking
- gateway to Escarpment Reserve as well as multi-use of fire trail connection
- compatible landscaping
- facilitates residential development in a more compatible location including a new access road to Garden Street
- undergrounding of overhead powerlines subject to Ausgrid requirements.

Land Dealing Summary

The proposal involves swapping part of the land Council purchased to facilitate the park with other privately-owned land. The total area of future parkland will remain as large as the current Council land-holding (**Attachment 4**). As per Attachment 4, the hatched area of Council owned land and Australand land is proposed to be swapped. Due to requirements within Section 94 it is incumbent on Council to swap area for area and that no land is lost in this swap. The proposed landswap to be undertaken involves the following land – all of which excludes the creekline corridor acquisitions which will be a separate transaction but in parallel:

- Southern part 9 Fern Creek Road (Pittwater Council)
- Northern part 11 Fern Creek Road (Australand)
- Northern part 12 Fern Creek Road (Australand)
- All 13 Fern Creek Road (Australand)

Comments on Final Proposed Concept Plan by Planning & Assessment

The Concept Plan proposes a revised open space arrangement, with a more linear open space configuration on the southern side of Fern Creek. This proposal will be similar to the existing arrangement on the northern side of Fern Creek (within Sector 8), thereby achieving a more integrated and cohesive open space arrangement with the existing park. This arrangement will benefit both the quality of the open space and the future residential development, which will front onto it. The revised open space layout will also facilitate the improvement of the existing biodiversity connection between the Fern Creek corridor and Ingleside Chase Escarpment.

In adopting the Warriewood Valley Strategic Review Report 2012 in June 2013, Council relinquished the 'sector-based' requirement for development within the Release Area, allowing the remaining undeveloped areas to be developed as separate land parcels.

Although this decision enables development of the majority of properties within the Release Area proceeding in a timely manner, it also has the potential to hinder the development of certain land parcels which, due to their lot layout and the configuration of the current road network, need to be developed with neighbouring properties to achieve access or necessary setbacks from environmentally sensitive land or hazards.

The current lot and road layout within Sector 9 makes any future development of 11, 12 and 13 Fern Creek Road difficult; these properties being landlocked with no frontage onto Fern Creek Road. Access for maintenance to these properties is currently via 9 Fern Creek Road through an arrangement with Council.

Based on the current layout, any development of 11, 12 and 13 Fern Creek Road would be reliant on a legal agreement (in the form of an easement) being reached with adjoining landowners who have a frontage onto this road.

The development potential of 11 Fern Creek Road and 13 Fern Creek Road is also limited not only by their lot configuration but also flooding and bushfire affectation and biodiversity constraints.

Sector 9 is currently served by vehicular access from Garden Street, Orchard Street and Fern Creek Road. The existing properties at 6 and 4 Orchard Street are long narrow lots that currently only have road access at their southern ends, therefore making them awkward to develop in isolation. The revised open space arrangement and subsequent improved road network will also result in improved access arrangements for these properties (**Attachment 4**).

The concept plan, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9 by integrating the open space with the existing park in Sector 8 and unlocking the development opportunity of the remaining portion of 9 Fern Creek Road and allowing development to be more appropriately positioned on surrounding properties.

Comments on Final Proposed Concept Plan by Reserves & Recreation

The proposed southern half of the CLP will reflect the shape of the existing (Rocket Park) to the north. This parkland will provide passive recreation opportunities to ride a bike, fly a kite or kick a ball. The proposed concept allows for the continuation of the cycle network across the Valley. This cycleway has been designed on the edges of the park to ensure a large amount of open grassed area. A reasonable amount of parking has also been provided along the southern boundary in a modified configuration to enable the width of parkland to be increased over the western portion.

Comments on Final Proposed Concept Plan by Urban Infrastructure

The extension of Fern Creek Road to the east will allow access to 2, 4 and 6 Fern Creek Road. The new layout has been proposed in recent development applications and will then connect through to Garden Street.

Comments on Final Proposed Concept Plan by Commercial Property & Projects

The proposed landswap will be administered as a commercial transaction based on highest and best use land valuations. It is envisaged that there would be a net financial return to back to the S94 Plan due to the increase in sale value of Council's existing land holding and the lesser purchase value of some of the land to be acquired.

Comments on Final Proposed Concept Plan by Section 94 Committee

The acquisition of 9 Fern Creek Road was funded out of Section 94 funds Council is obliged to provide the equivalent of this land area in any landswap proposal (net of the creekline corridor component). Any and all financial gain from the landswap would also be put back into the Warriewood Valley S94 Plan to help fund remaining outcomes

4.9 Way Forward

Due to the complex nature of the land holdings in question and the future development progress within Sector 9, the proposed negotiation process would include the following:

- Finalisation of the new layout of the Large Local Park
- The proposed land dealings be surveyed to assess future lot sizes and land transfers – to ensure that Council does not lose recreation area within the existing 1ha
- A full valuation process is undertaken by a registered valuer to assess the proposed land swap and all the associated transactions
- Negotiations to be formally started with landowners
- Report to Council on the outcome of negotiations

5.0 ATTACHMENTS / TABLED DOCUMENTS

Attachment 1 – 9 Fern Creek layout (Council owned land)

Attachment 2 – Location map showing 9 Fern Creek within Sector 9

Attachment 3 – Proposed concept of the new linear park

Attachment 4 – Sector 8 & 9 Open Space Masterplan

6.0 SUSTAINABILITY ASSESSMENT

6.1 GOVERNANCE & RISK

6.1.1 Community Engagement

As per the Council recommendation of 19 May 2014, Council's staff have extensively engaged with Sector 9 land owners, the local resident group (WRA) and the broader community. There have been a number of meetings with WRA and stakeholders to reach the final concept design.

6.1.2 Risk Management

The fact that the Council owned land was purchased using Section 94 funds means that any changes to the current ownership and/or layout needs to be managed under strict probity arrangements. This is particularly important when it involves a direct transaction. In this regard, the level of detail and community and stakeholder engagement has identified the land intended to be swapped by Australand and the Council should provide mutually beneficial outcomes.

6.2 ENVIRONMENT

6.2.1 Environmental Impact

The creekline corridors through the Warriewood Valley i.e Narrabeen Creek and Fern Creek generally have a 50 metre wide central corridor that contains riparian habitat as well as shared path connection(s). These corridors provide important continuous wildlife connections from the Escarpment to the Warriewood Wetlands.

The Central Local Park has the Fern Creek creekline corridor as a central environmental feature. The northern half of this corridor has already been acquired and co-joins the recreational open space. The southern half of the creekline corridor will also be acquired and in conjunction with the proposed southern half layout ensures there is a broad expanse of adjoining open space that can suitably integrate both environmental and recreational requirements, particularly as a gateway to the Ingleside Chase Escarpment Reserve to the west.

In comparison, if the private land intended to be swapped remains there would be roads and housing development much closer to the creekline corridor at this important transitional location.

6.2.2 Mitigation Measures

The environmental impact of the proposed parkland is minimal and will generally be similar to the current grassed paddocks albeit better maintained. The proposed perimeter pathway also provides a managed edge between the riparian plantings and the open grassland. It is noted that the grassland also provides habitat for grazing and foraging animals such as wallabies and bandicoots. In this regard it is important that cats and dogs be effectively managed to prevent fauna loss.

6.3 SOCIAL

6.3.1 Address Community Need & Aspirations

The proposed landswap will create a better public amenity by providing a park that is aligned to the creek. This provides a recreational space with an open feel that is readily accessible and compatible with the northern half of the CLP. The alternative rectangular lot had the disadvantage of being somewhat hemmed in on three sides by surrounding medium density developments with parking around those perimeters as well as the likely overlooking this may cause.

6.3.2 Strengthening local community

The concept plan, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9. This in turn with the bridge connection and other connecting pathways will significantly strengthen the local communities to the south, north and east adding to the liveability and appeal of Warriewood Valley.

6.4 ECONOMIC

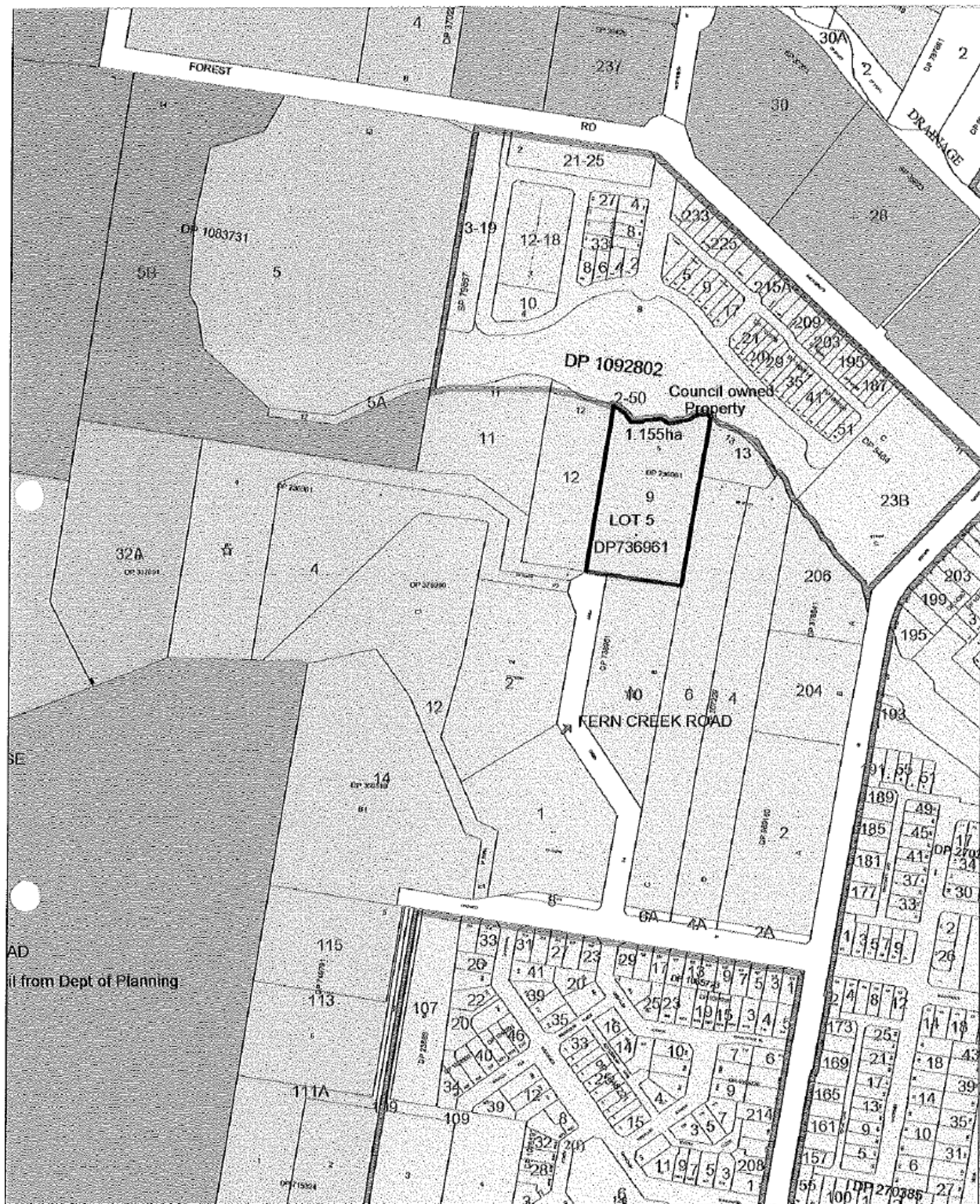
6.4.1 Economic Development

There is a potential economic benefit as a result of this landswap, in particular aligning land uses to best effect to provide important open space as well as housing outcomes. Unlocking Sector 9 for development is also vitally important to the local economy and job creation as well as providing much needed contribution to the S94 Plan to fund remaining infrastructure provision not provided by adjoining developers and as identified in the Plan.

The landswap will be based on a land area for land area as well as a cash settlement that has regard to the highest and best use potential of the lands being swapped / acquired.

Report prepared by

Paul Reid
MANAGER, CORPORATE DEVELOPMENT & COMMERCIAL



Land : 5/736961
Address : 9 FERN CREEK ROAD WARRIEWOOD
Property : 77,178
Address : 9





Attachment 8- Warriewood Valley Landscape Masterplan & Design Guidelines (May 2016)

Warriewood Valley Landscape Masterplan & Design Guidelines (May 2016) p 23

WARRIEWOOD VALLEY URBAN RELEASE AREA

Landscape Masterplan and Design Guidelines

(Public Domain)



Guidelines Contents

1.0 Introduction

2.0 Landscape Masterplan

3.0 Streetscape Guidelines

- S-1 Local Sub Arterial (B) Street
- S-2 Collector Street
- S-3 Local Street
- S-4 Access Street
- S-5 Refuge Island
- S-6 Roundabout

4.0 Creekline Planting Guidelines

- C-1 Multi Use Areas
- C-2 Accessible Water
- C-3 Remnant Bush Margins
- C-4 Indicative Treatment Details

5.0 District Park / Active Sportsfields

- P-1 Active Sportsfield
- P-2 District Park
- P-3 Proposed Active Sportsfield

6.0 Fire Trail

- F-1 Fire Trail

DISCLAIMER

NOTE:
The facilities and features on this plan are diagramatic only and the actual location will be subject to regular reviews of the Section 94 Plan by Council, and will also be dependant on survey, site considerations and compliance with all relevant standards and requirements.

All internal Sector Road Layouts/ Landscaping/ Open Space (Apart from Sectors 1, 2, 10, 11 and 12) are indicative only and reflect submissions by the Developers at the time of preparation of this Plan.

Council does not endorse or otherwise the proposals by the Developer in each Sector



1.1 Generally

The Warriewood Urban Release Area Landscape Masterplan and Design Guidelines have been prepared to provide Pittwater Council and the development community with a coordinated basis upon which planning and design of streetscape, open space and creekline improvements can be undertaken through out staged development of the release area.

The design guidelines are aimed to provide minimum standards upon which site specific design development of sustainable landscape strategies can be undertaken.

Landscape elements include:

- Setbacks of street tree planting to road corridors
- Standards for street tree planting materials and size
- Standards for open space and creekline landscape enhancement and key design principles

The Warriewood Valley Urban Release project is a significant initiative which aims to establish a coordinated framework for integrated development to occur in the valley focusing upon the “green” corridors provided by creeklines and related open space and roadway links.

The Landscape Masterplan and Design Guidelines build upon the existing planning controls in place for the Warriewood Valley Urban Release Area including:

- Development Control Plan No.9 (1997)
- Development Control Plan No.29 (2001)
- Pittwater 21 Development Control Plan (2004)
- Warriewood Valley Section 94 Contribution Plan (2004)
- Warriewood Valley Roads Masterplan (2004)

The recommendations and principles established by the masterplan/design guidelines supplement the landscape controls provided in these documents and should be read in conjunction with them.

The development of site specific design solutions by development consortiums must take into account detailed site conditions including levels, existing vegetation, etc. The solutions must integrate and respond to the requirements outlined in this document and the preceding planning controls identified above. Design solutions must also encompass the opportunities for innovative and stimulating landscape design which can enhance the lifestyles of permanent and workforce residents, and develop a sustainable and attractive environment for the Warriewood Valley.

1.2 Structure of the Report

This report is presented in three principal sections:

Section 2 Landscape Masterplan

Describes the overall landscape strategies for the urban release area incorporating creekline corridors, open space areas (District Parks, Neighbourhood Parks, and Sport Fields), and road corridors (Avenues, Industrial Avenues, and Sector Roads).

Section 3 Streetscape Planting Guidelines

Landscape plan and sectional guidelines for design development of street corridor plantings.

Section 4 Creekline Planting Guidelines

Landscape plan and sectional guidelines for design development of creek corridor landscape treatments. Guidelines provide design principles which must be subject to site specific Hydraulic and Civil Engineering design.

Section 5 District Park / Active Sportsfield

Schematic plans of generic district park design and schematic of active sportsfield / detention basin.

Section 6 Fire Trail

Typical treatment of the Bush Trail/ Perimeter Road to the west of the urban release area.



2.1 Generally

The Landscape Masterplan on the following page summaries the landscape related components of the Warriewood Valley Urban Release Area Planning Controls (DCP’s, Section 94 Plan, and Roads Masterplan). These include:

Street Corridors	Street tree planting themes to avenues, industrial avenues, and sector streets. Street trees species for sector shareways and accessways are also identified.
Creekline Corridors, Open Space and Buffer Zones	Indicate the 50 m wide multi-use open space reservation to the Narrabeen and Fern Creek Corridors to incorporate pedestrian/cycleway access, creekline rehabilitation and bank stabilisation, weed removal and native revegetation, and passive use recreation.
Open Space and Buffer Zones	The Masterplan incorporates an indicative open space scheme for district and neighbourhood parks incorporating development conservation proposals. Buffer zones as indicated represent proposed location of dual purpose (buffer and access link) zones adjoining sensitive areas or required setbacks and screening.
Service and Recreation	Identify the indicative location of off road pedestrian and cycleway linkages, playground facilities and public transport nodes.

The aim of the masterplan is to provide a consolidated reference document encompassing all landscape related objectives and requirements of the planning controls for the urban release area.

Key Public Domain Principles outlined in the Warriewood Valley DCP which underpin the masterplan and design guidelines following include:

Safety	Provision of safe pedestrian and cycle access through road corridors, creek corridors, and open space areas.
Connectivity	Vehicular and pedestrian access is efficiently managed through a hierarchy network of attractive and clearly defined links.
Bush in the Valley	A minimum of 40% of creekline corridor area is to comprise native vegetation (existing and new) to establish interconnected flora and fauna corridors. The corridors are to support multi-use objectives including pedestrian/cycle access, and passive recreation.
Recreation in the Valley	Distribution of open space / parkland areas to cater for a variety of functions and user types including playground facilities and park furniture.

Streetscape guidelines have been prepared to guide those responsible for planning and development of the public domain in the Warriewood Valley in the implementation of Council’s objectives for a coordinated, functional and attractive landscape image.

A key consideration in the development of guideline has been the objective of establishing common themes for the layout of streetscape elements such as tree planting, shared

pedestrian/cycle paths and street lighting.

The presence of underground services and utilities places a significant constraint on the ability to provide meaningful street tree canopy. Street trees of adequate scale (height and spread) are the fundamental strategy by which Council’s objectives of “Bushland in the Valley” and quality of living and working environment can be realised.

The cross sections shown on the streetscape guidelines indicate the options available for incorporation of street tree planting in the typical footpath reserve situation identified by Council’s Masterplan.

These options indicate that for Sub Arterials a consistent setback 0.55 metres from the property boundary is preferred. To Avenues incorporating existing kerb and footpath formations and services/ utilities (eg. section of Macpherson Street) this may require adjustment based on exact location of Energy Australia Utilities.

For Collector Roads, a centred carriageway, enabling a tree alignment of 2.0 metres from property boundary is preferred.

Liaison will be required with Energy Australia (Avenues) and Telstra (Collector Roads) to ensure that tree alignments can be achieved for these corridor types.



August 2006
509 D.01 Issue E

Warriewood Valley Urban Release Area

Plan and Design Guidelines



Plant species for landscape development

2.0

August 2006
509 D.01 Issue E

[illegible]

Plant Species

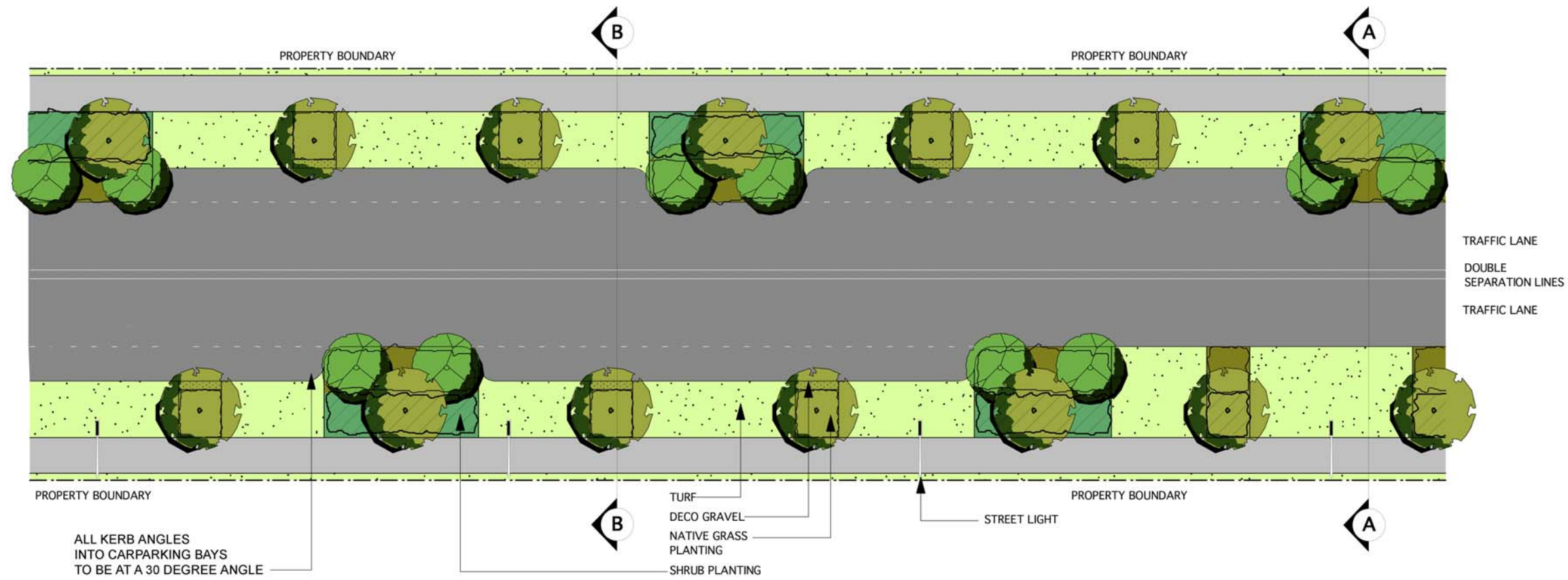


3.0

August 2006
509 D.01 Issue E

Streetscape
Guidelines

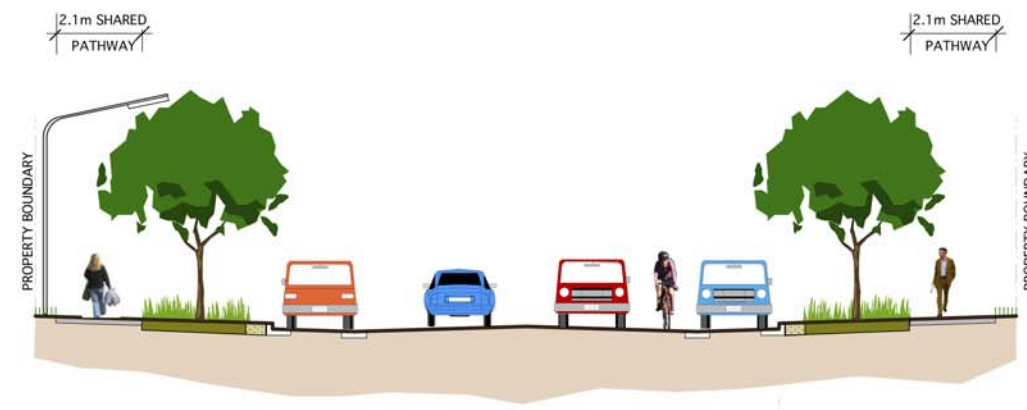




Plan (Not to scale)



Section A-A (Not to scale)



Section B-B (Not to scale)

REFER TO CURRENT
WARRIEWOOD VALLEY ROADS
MASTER PLAN FOR ROAD
RESERVE AND CARRIAGEWAY
WIDTHS

Guidelines

Location

Ponderosa Parade, MacPherson Street, Warriewood Road (east of MacPherson Street), Garden Street

Principles

Street tree planting to be installed as per masterplan generally at 7-15m nominal centres.

All street trees to be minimum 500 litre stock and be subject to pre-order of plant material. All trees to be grown by recognised nursery under natspec growing guidelines.

All street tree plantings to include hardwood timber tree guard.

Existing trees to be retained where possible and only where a minimum root area of 4m² can be retained at the tree base.

All kerb widenings to incorporate mass planted areas (rather than turf) that is able to be hedged or easily manicured. Planting should be selected relative to sight lines required for specific locations.

Street tree plantings to footpath should generally include underplantings of native grass and a strip of deco granite adjoining the kerb to enable opening of car doors.

Garden areas to include minimum 400mm cultivated soil (compost added) and mulched with 100mm hardwood chip. Planting to be at a high density (ie. 4 per m²) and generally include drought tolerant native species up to 1m ultimate height. All shrub / groundcover planting to be minimum 5 litre size.

Water points to be provided to verge planting areas at 50-100m centres dependent on ultimate street layout.

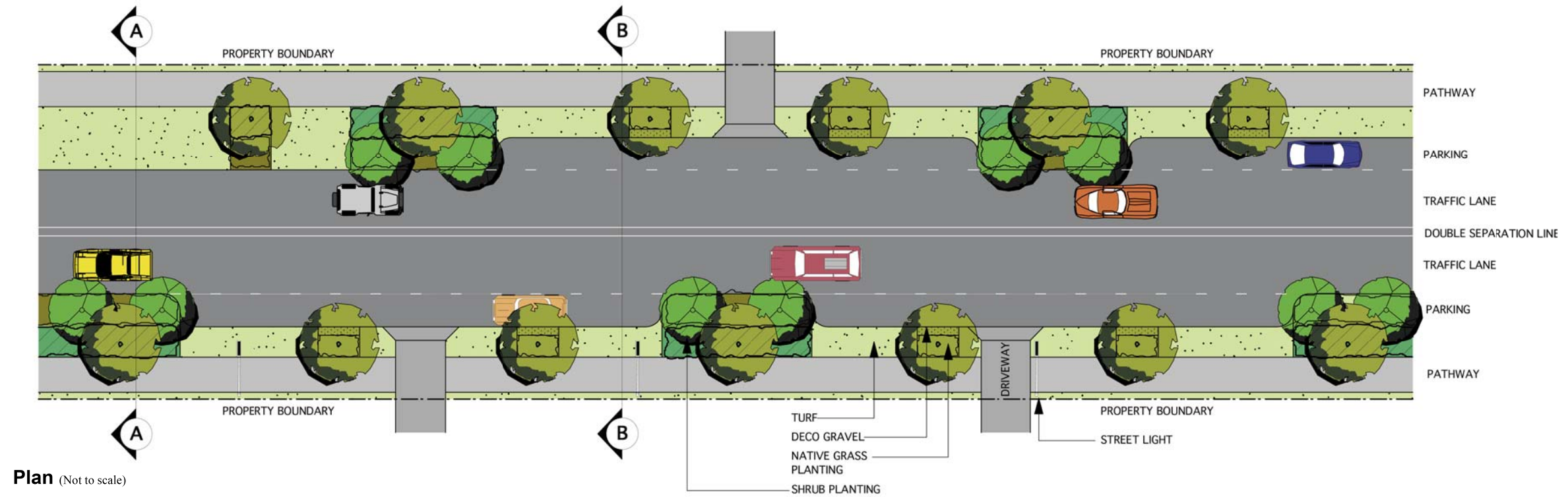
All pram or disabled access ramps to be in accordance with Austroad, DDA and Australian Standards.

All proposed works must be liaised with utility authorities (via Dial Before You Dig) with utility location drawings kept on site at all times.

Generally all plant material is to be endemic to the area. Plant material not endemic to the area may be used to accent planting for nominated entries or features but kept to a design minimum.

Street lighting poles must be conventional Energy Australia, i.e. either Decorative Style No.1 or Style No.2.

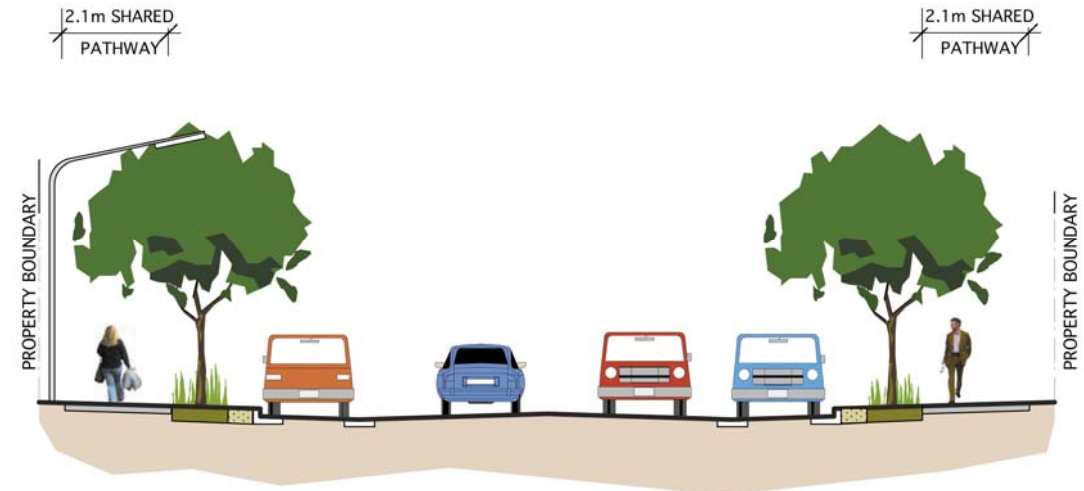




Plan (Not to scale)



Section A-A (Not to scale)



Section B-B (Not to scale)

REFER TO CURRENT
WARRIEWOOD VALLEY ROADS
MASTER PLAN FOR ROAD
RESERVE AND CARRIAGEWAY
WIDTHS

Guidelines

Location

Foley Street, Jubilee Avenue, Vineyard Street, Orchard Street, Fern Creek Road, Daydream Street, Boondah Road

Principles

Street tree planting to be installed as per masterplan generally at 7-15m nominal centres.

All street trees to be minimum 500 litre stock and be subject to pre-order of plant material. All trees to be grown by recognised nursery under natspec growing guidelines.

All street tree plantings to include hardwood timber tree guard.

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Water points to be provided to verge planting areas at 50-100m centres dependent on ultimate street layout.

Integrate requirements for driveways to layout of street trees to provide balanced visual character.

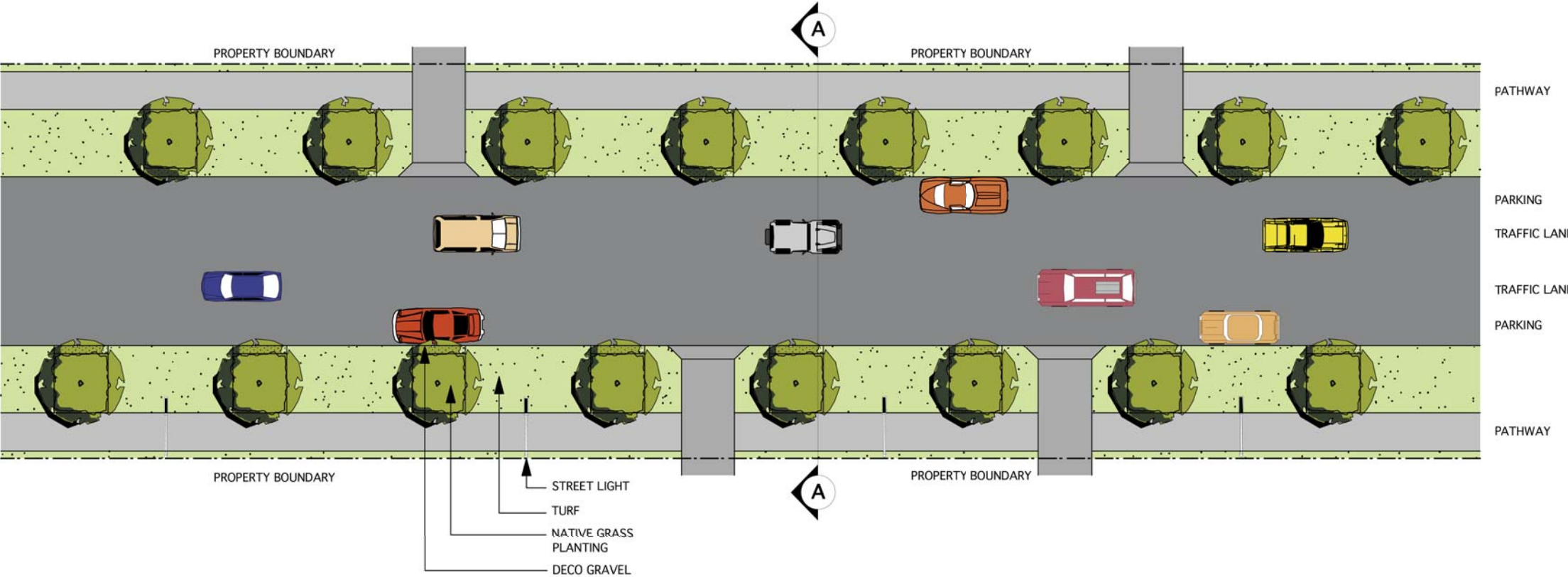
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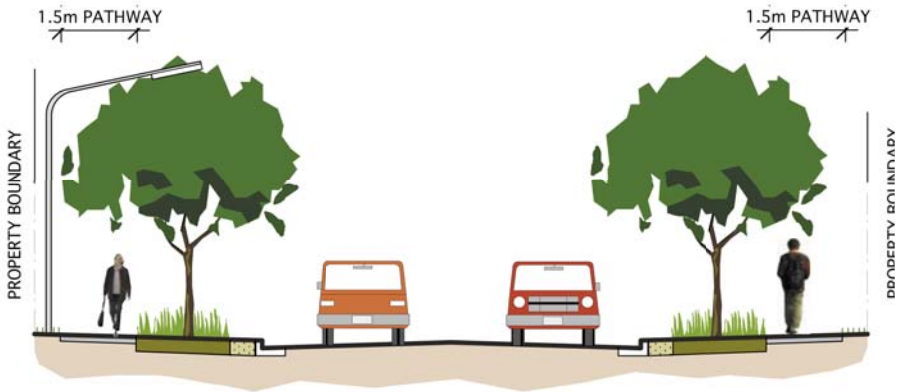
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Street lighting poles must be conventional Energy Australia, i.e. either Decorative Style No.1 or Style No.2.





Plan (Not to scale)



Section A-A (Not to scale)

REFER TO CURRENT
WARRIEWOOD VALLEY ROADS
MASTER PLAN FOR ROAD
RESERVE AND CARRIAGEWAY
WIDTHS

Guidelines

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Existing trees to be retained where possible and only where a minimum root area of 4m² can be retained at the tree base.

All street tree plantings to include hardwood timber tree guard.

Street tree plantings to footpath should generally include underplantings of native grass and a strip of deco granite adjoining the kerb to enable opening of car doors.

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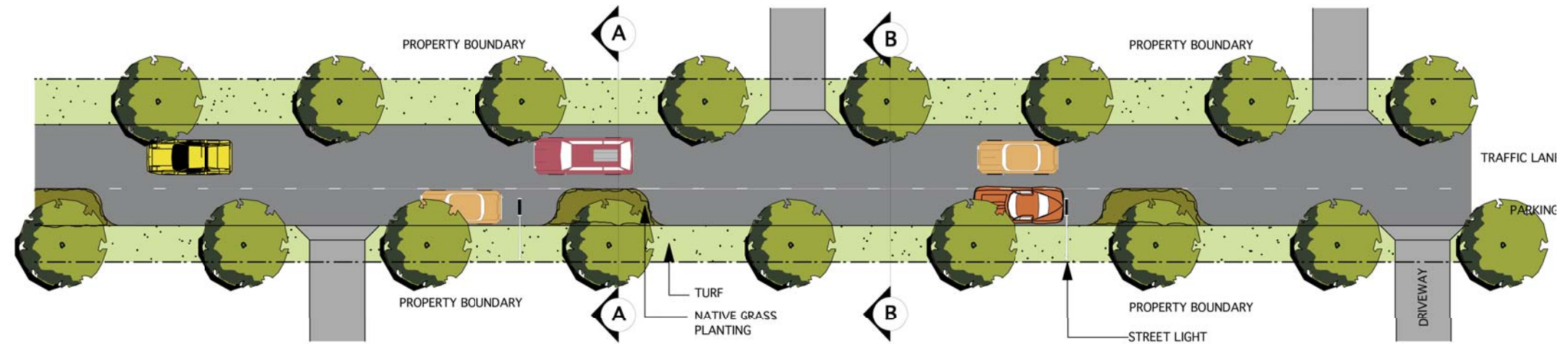
All proposed works must be liaised with utility authorities (via Dial Before You Dig) with utility location drawings kept on site at all times.

All trees planted in turf to include timber edges with 1.5x1.5 hardwood edging and tree guard.

Generally all plant material is to be endemic to the area. Plant material not endemic to the area may be used to accent planting for nominated entries or features but kept to a design minimum.

Street lighting poles must be conventional Energy Australia, i.e. either Decorative Style No.1 or Style No.2.





Plan (Not to scale)



Section A-A (Not to scale)



Section B-B (Not to scale)

REFER TO CURRENT
WARRIEWOOD VALLEY ROADS
MASTER PLAN FOR ROAD
RESERVE AND CARRIAGEWAY
WIDTHS

Guidelines

Principles

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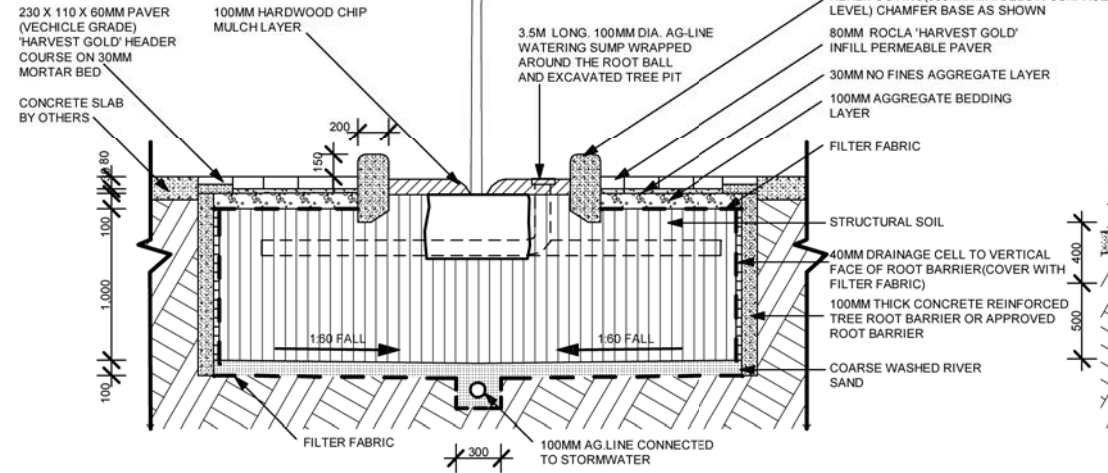
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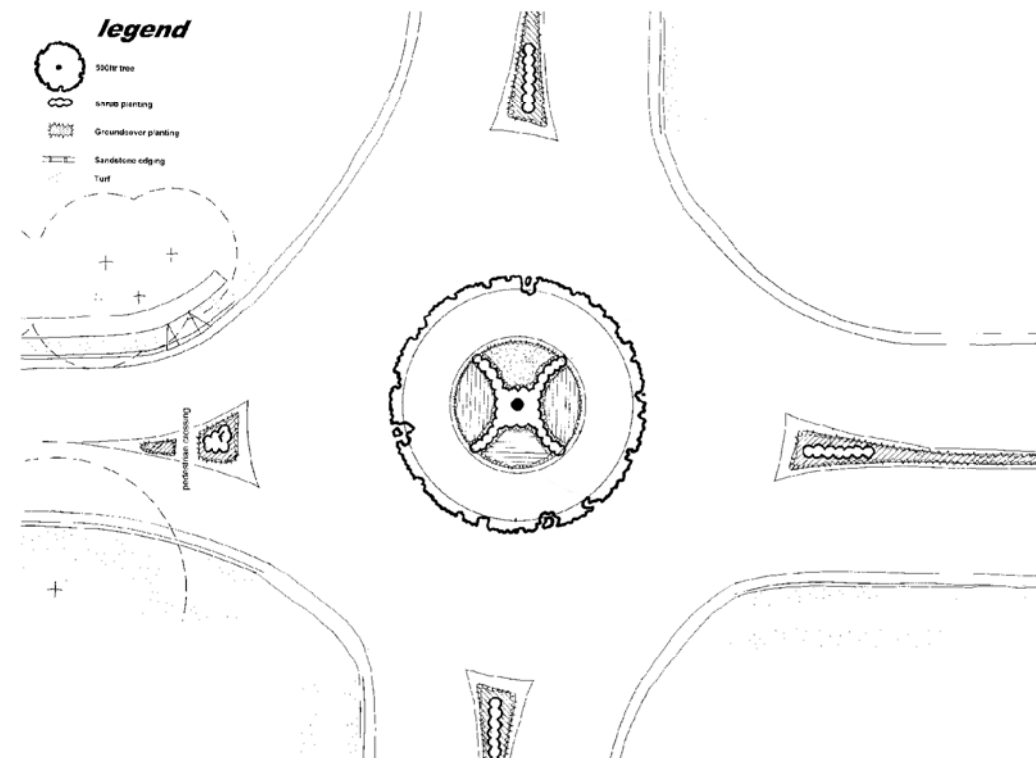
Generally all plant material is to be endemic to the area. Plant material not endemic to the area may be used to accent planting for nominated entries or features but kept to a design minimum.

Street lighting poles must be conventional Energy Australia, i.e. either Decorative Style No.1 or Style No.2.





SECTION Scale 1:50



PLAN Not To Scale

TYPICAL ROUNDABOUT Non Structural Soils

Structural Soil – 40mm Structural Soil.

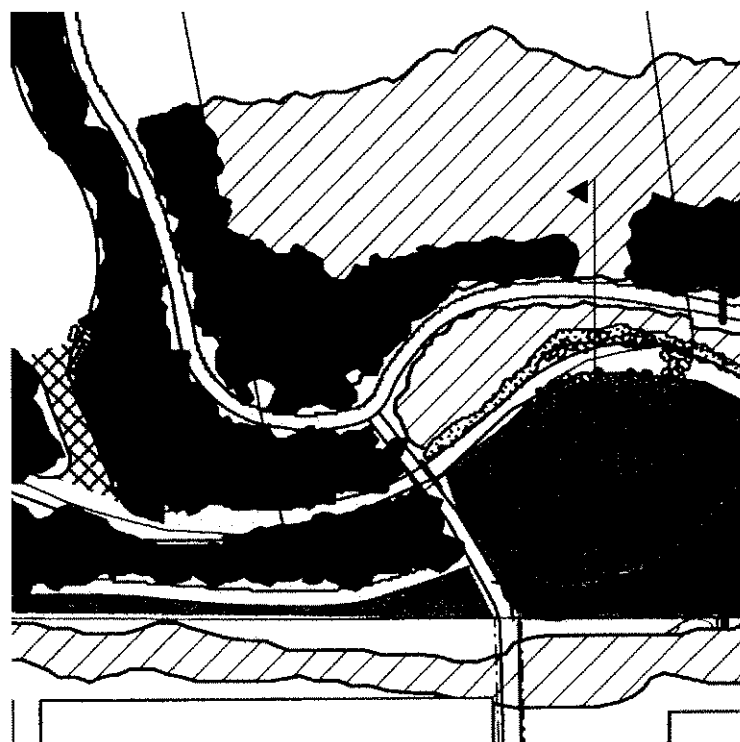


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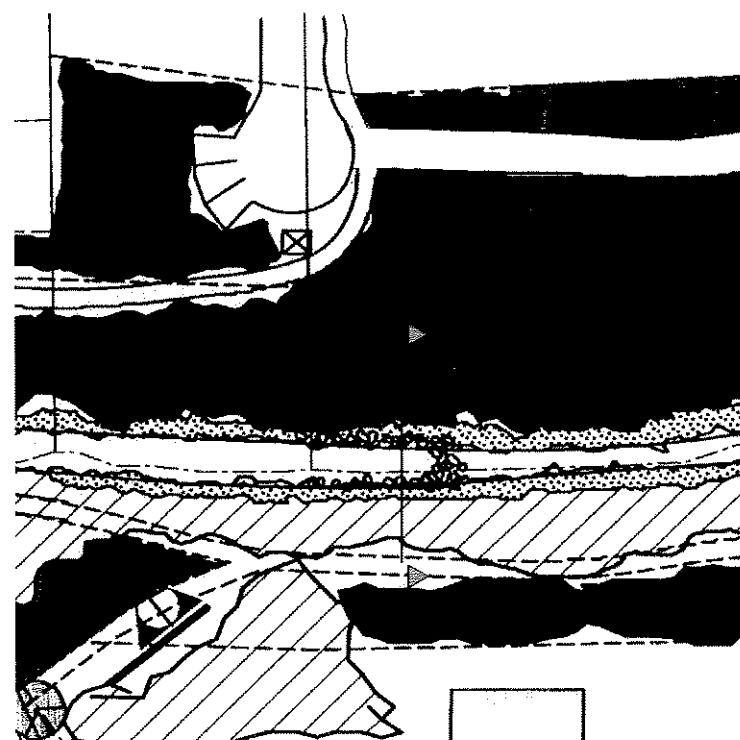
August 2006
509 D.01 Issue E

Creekline Guidelines

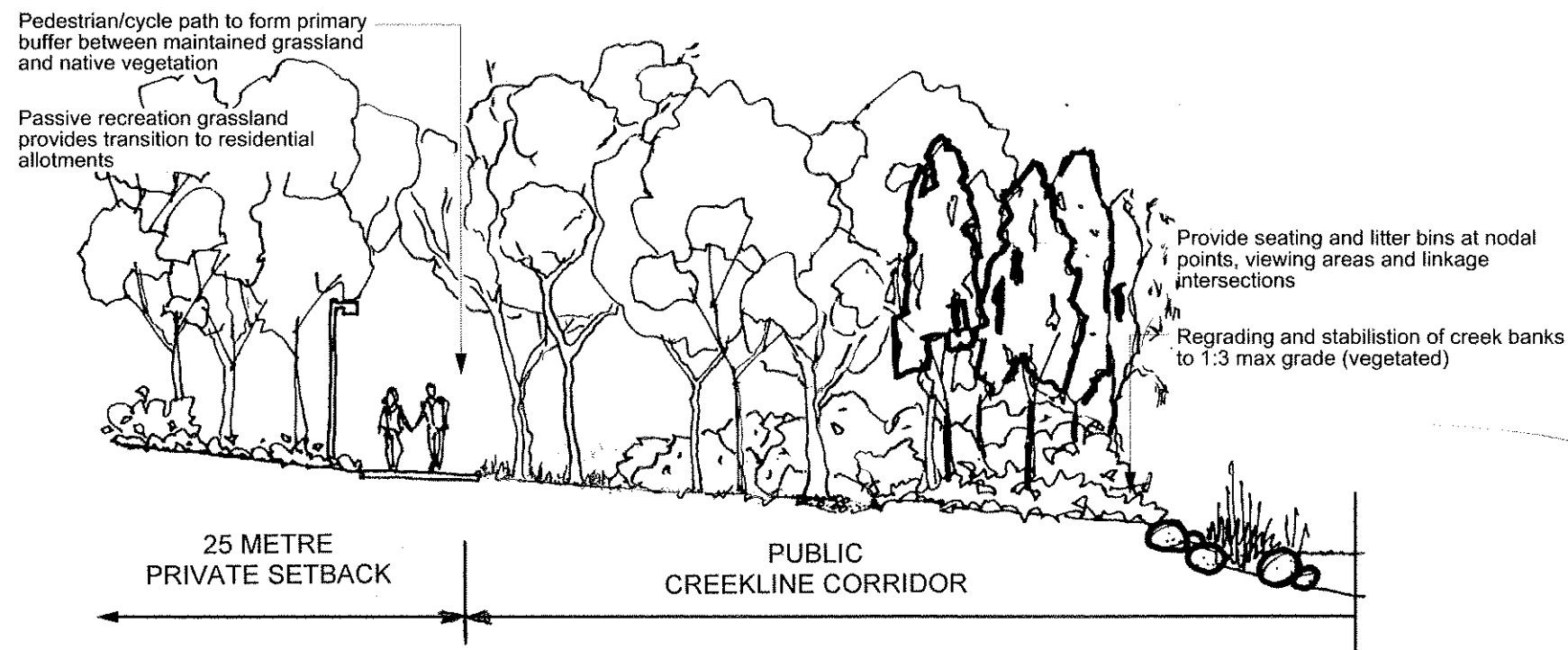




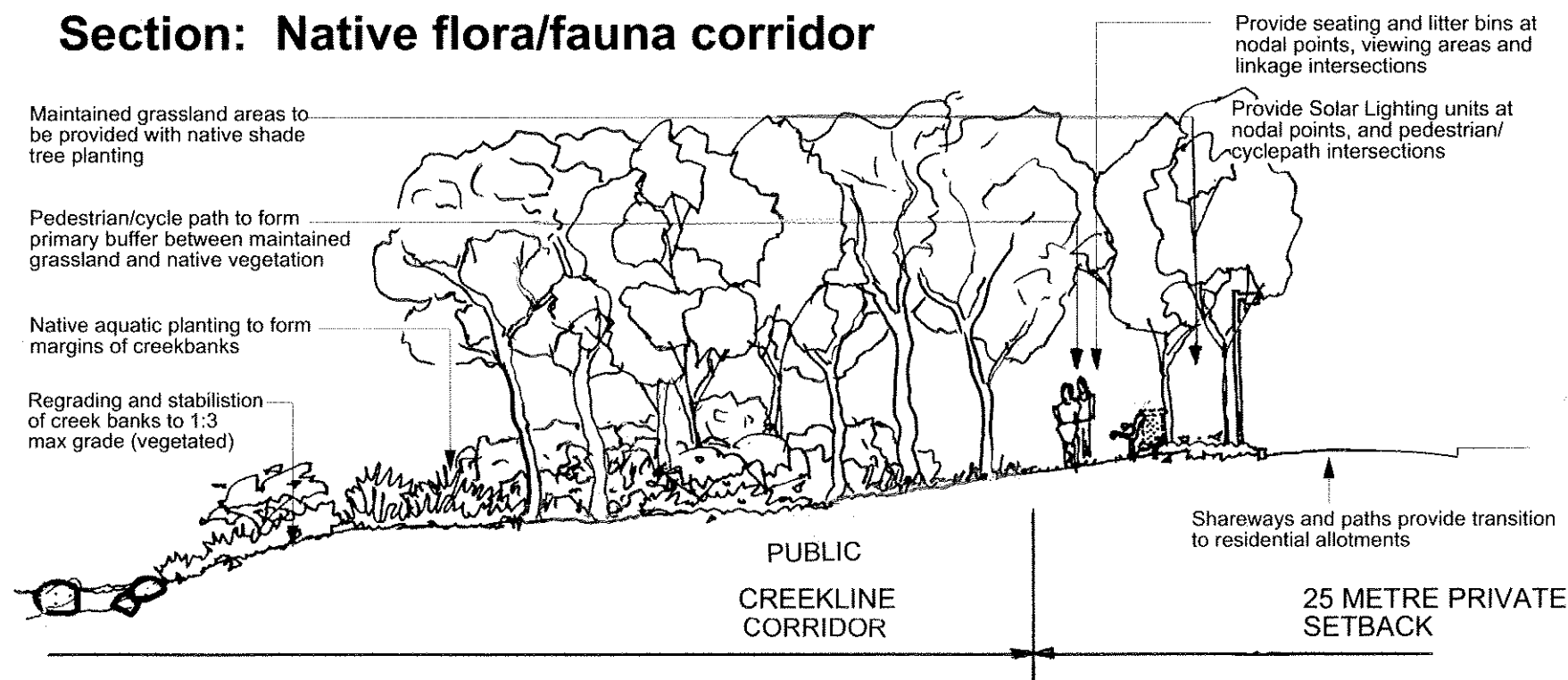
Plan: Vegetated corridor



Section: Multiuse corridor areas



Section: Native flora/fauna corridor



Guidelines

Location:
The 50 metre creekline reservation of Narrabeen and Fern Creek.

Principles:
50 metre creekline reservation to be planned and implemented as multi-use open space corridors to incorporate:

Creekline rehabilitation; regrading and stabilisation of creek banks to 1:3 max grade (vegetated) and 1:6 max grade (at water access points, see C-2)

Rock armoured waterline to reduce propensity for erosion. Weed removal and native revegetation

Recreational amenity; Pedestrian/cycle linkages to residential areas and for district access.

Integrate corridors with Neighbourhood Park areas where possible to consolidate open space area, share facilities (eg. Playgrounds)

Flora and Fauna Habitat; Provide for native vegetation or revegetation to a minimum of 40% of areas as interlinked vegetation corridor creekline reserve.

Locate pedestrian/cycle path to form edge between maintained grassland and native vegetation. Where alternate edge is required provide timber edge (150x50mm Band) with 1.5mtr width of Nepean River gravel margin as maintenance barrier.

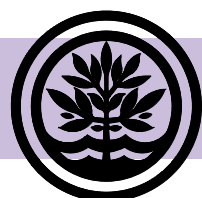
Pedestrian/cycle paths to be located above the 20% AEP flood level for that specific location.

Maintained grassland areas to be provided with native shade tree planting.

Provide widenings to creek waterbody where possible to slow water movement and provide additional environmental feature.

Maintain adequate sightlines to pedestrian/cycle path alignment to meet Austroads standards.

Provide seating and litter bins at nodal points, viewing areas and linkage intersections.
-Seats at litter bins at nominal 250 metre spacing
-Signs at nominal 100 metre spacings
-Solar lights at nominal 50 metre spacings
-Refer to Water Management Specification



Guidelines

Location:

Adjacent Water Quality Detention ponds, and at creek waterbody widenings

Principles:

Provide varied and safe access to creekline and waters edge at select locations.

Extend Pedestrian/cycleway to serve as access points to water.

Modulate planting to ensure views, and sightlines into creekline.

Revegetate creekline margins with native aquatic species. Provide appropriate terracing at waters edge to provide viable planting depths, and where bank gradients require.

Provide rock work in naturalistic horizontal patterns protect and enhance creek banks.

Do not adjoin maintained grass areas directly to rock armouring zones - minimum 2 metre native planting buffer required.

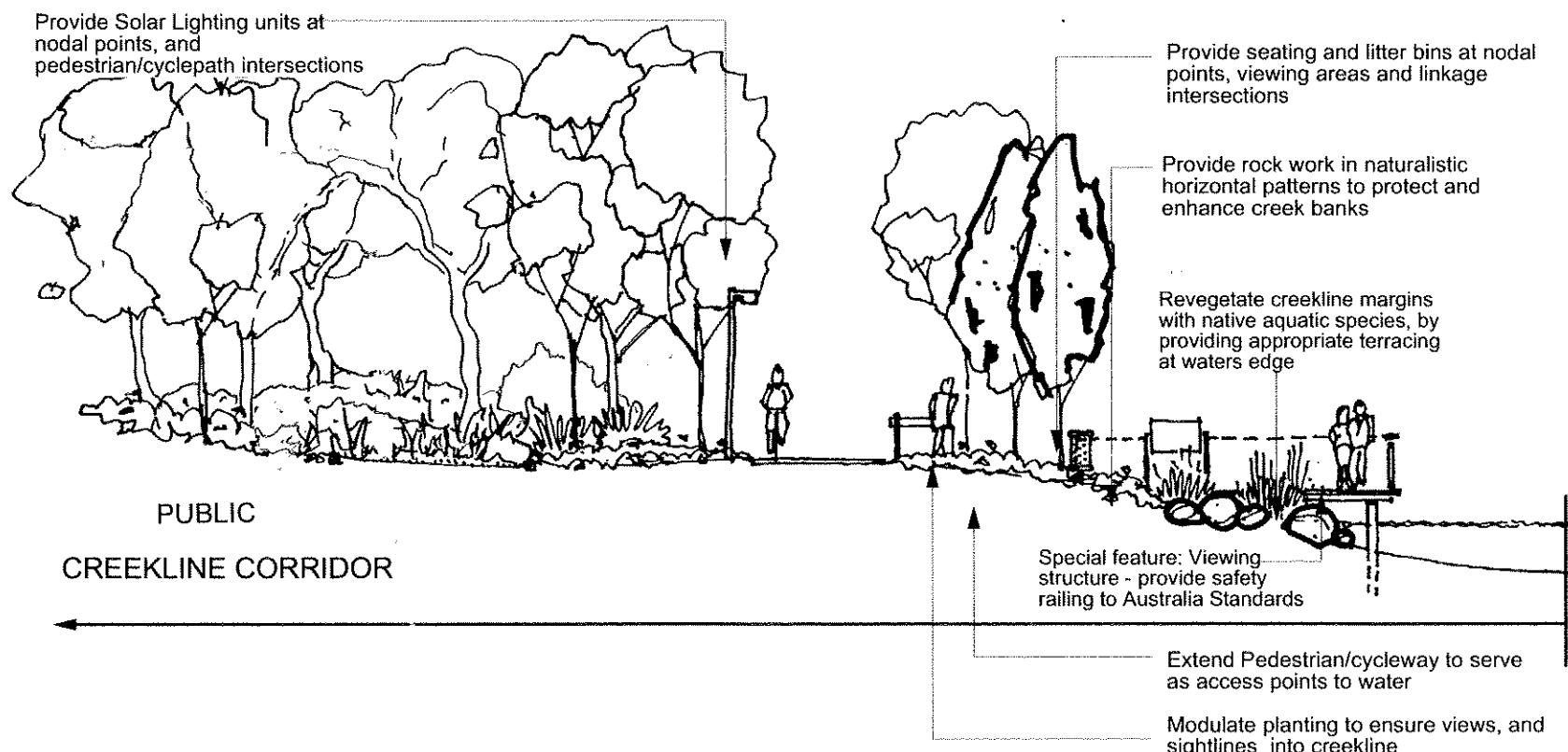
Refer to DCP No.20 for recommended creekline species for vegetation precincts.

Maintain Pedestrian/cycle sightlines and security surveillance through alignment of path and planting design.

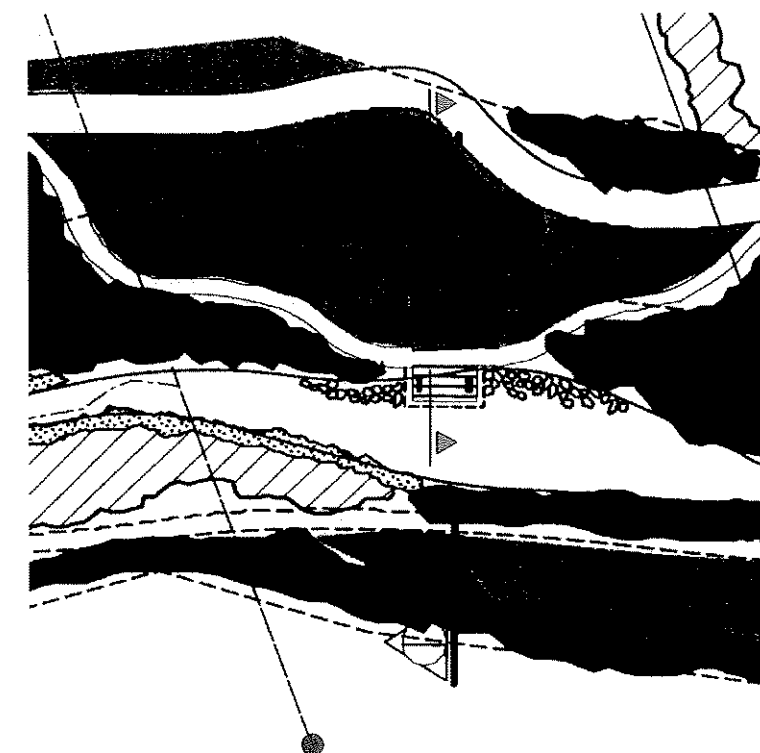
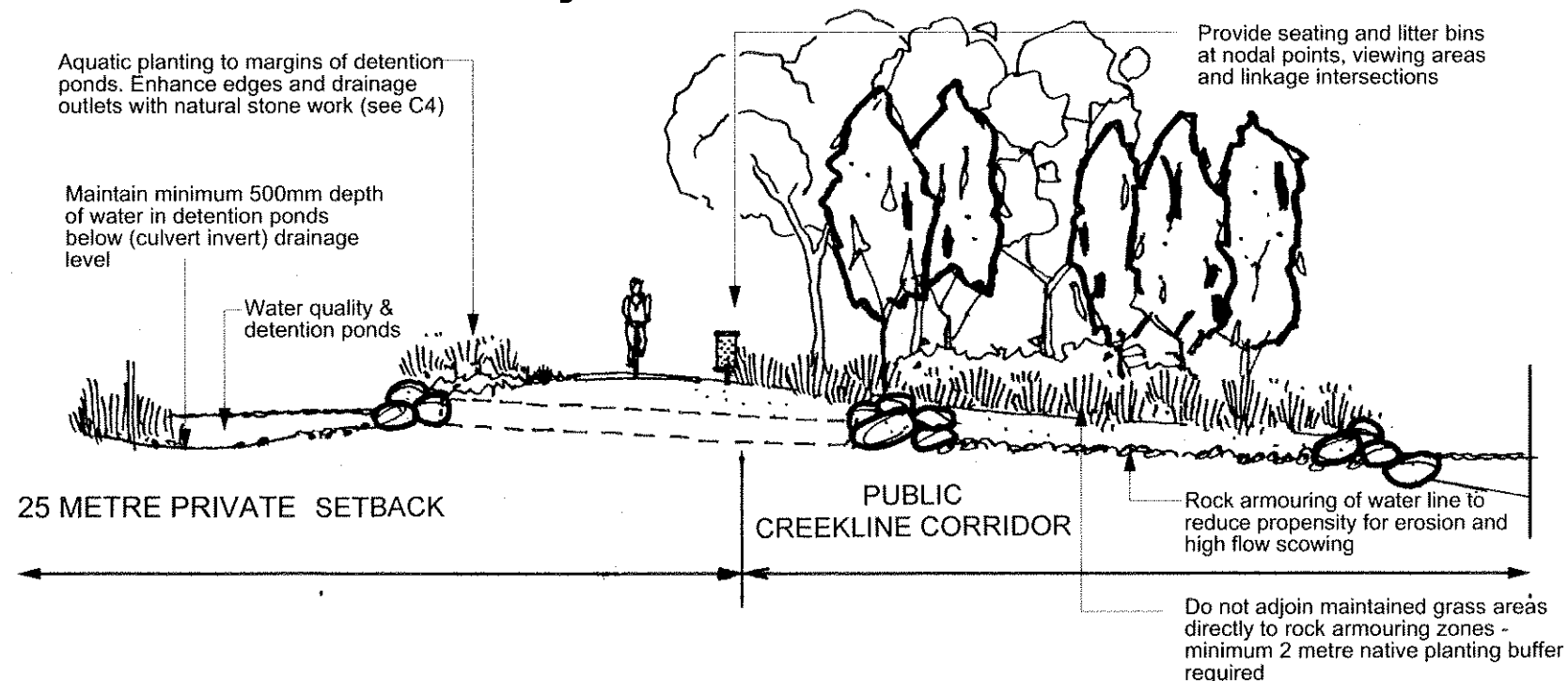
Provide seating and litter bins at nodal points, viewing areas and linkage intersections.
- Seats at litter bins at nominal 250 metre spacing
- Signs at nominal 100 metre spacings
- Solar lights at nominal 50 metre spacings

Lights to conform with Category B2 for minor streets and cycleways.

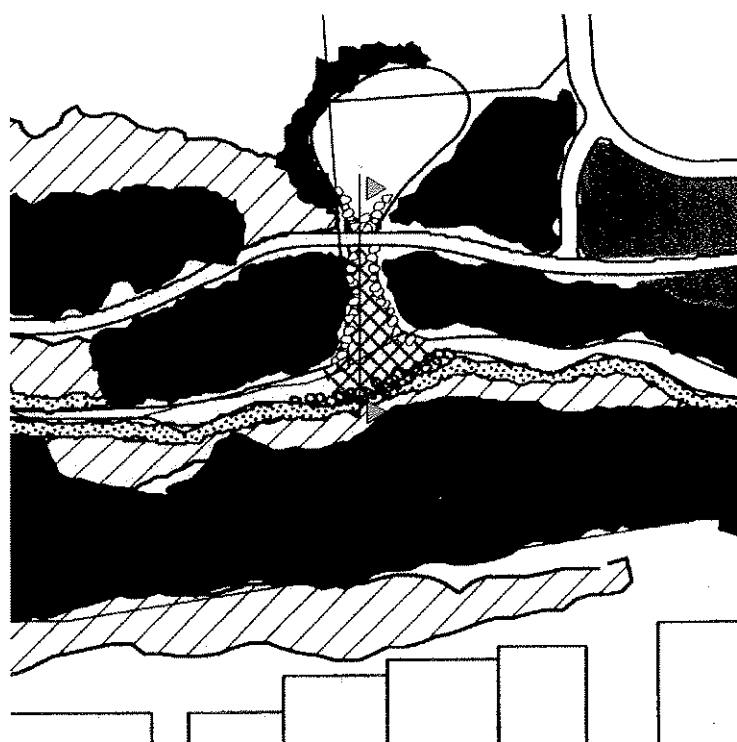
Section: Water bodies and viewing area



Section: Water Quality Detention Ponds



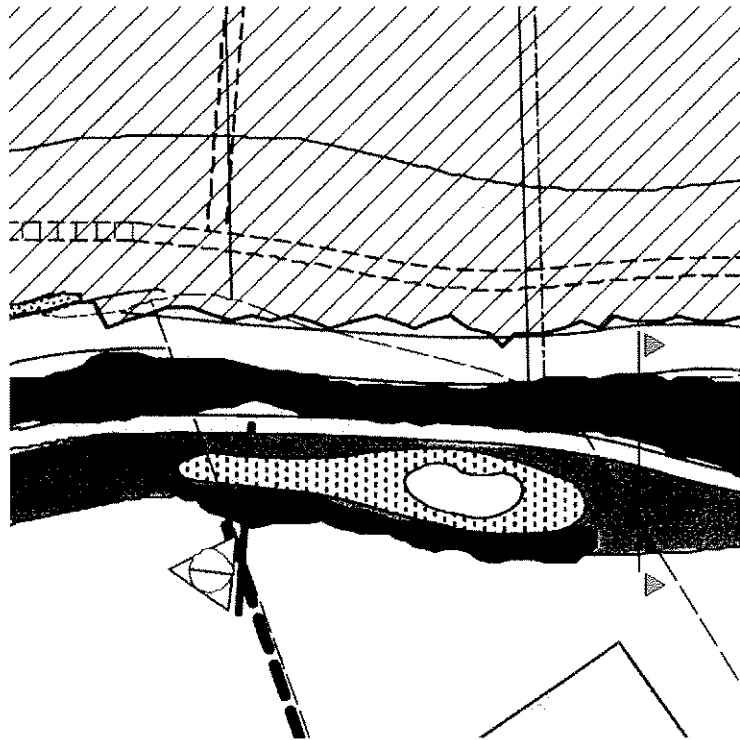
Plan: Accessible water



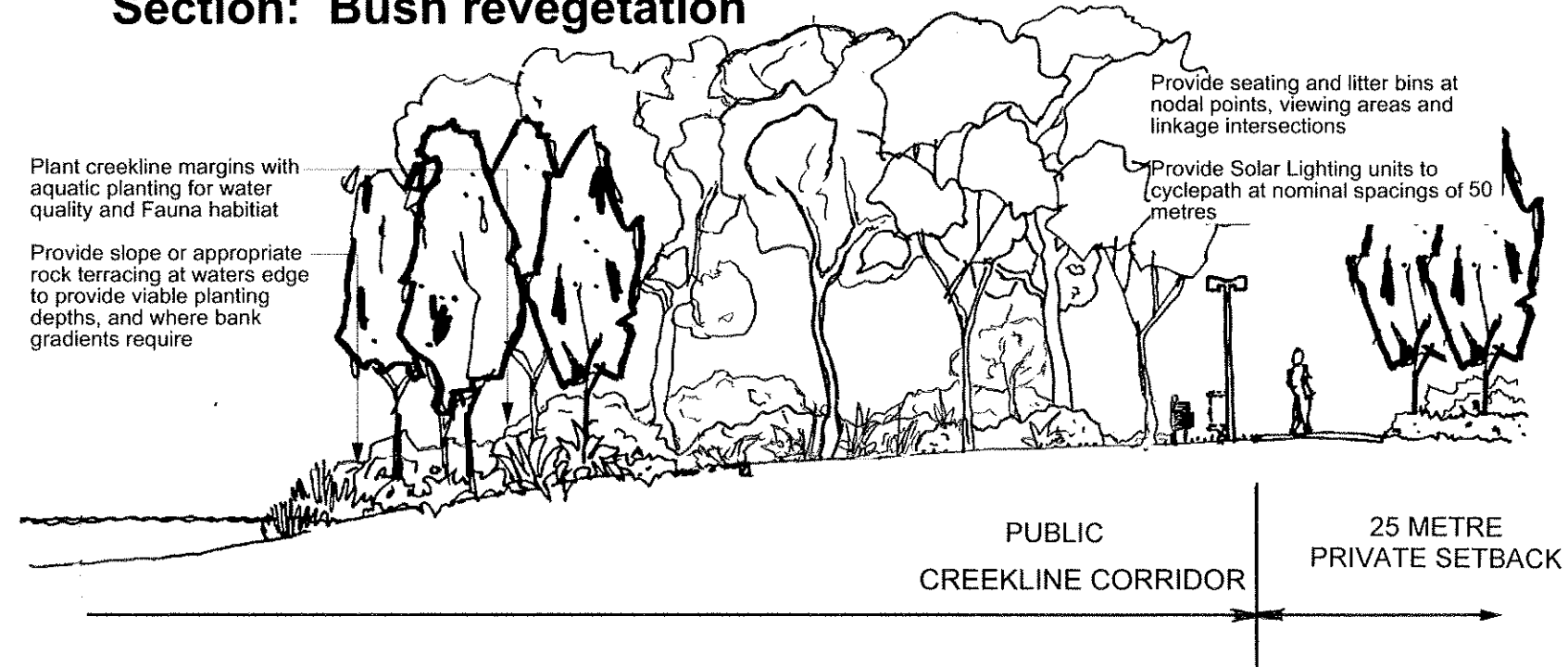
Plan: Water Management bodies



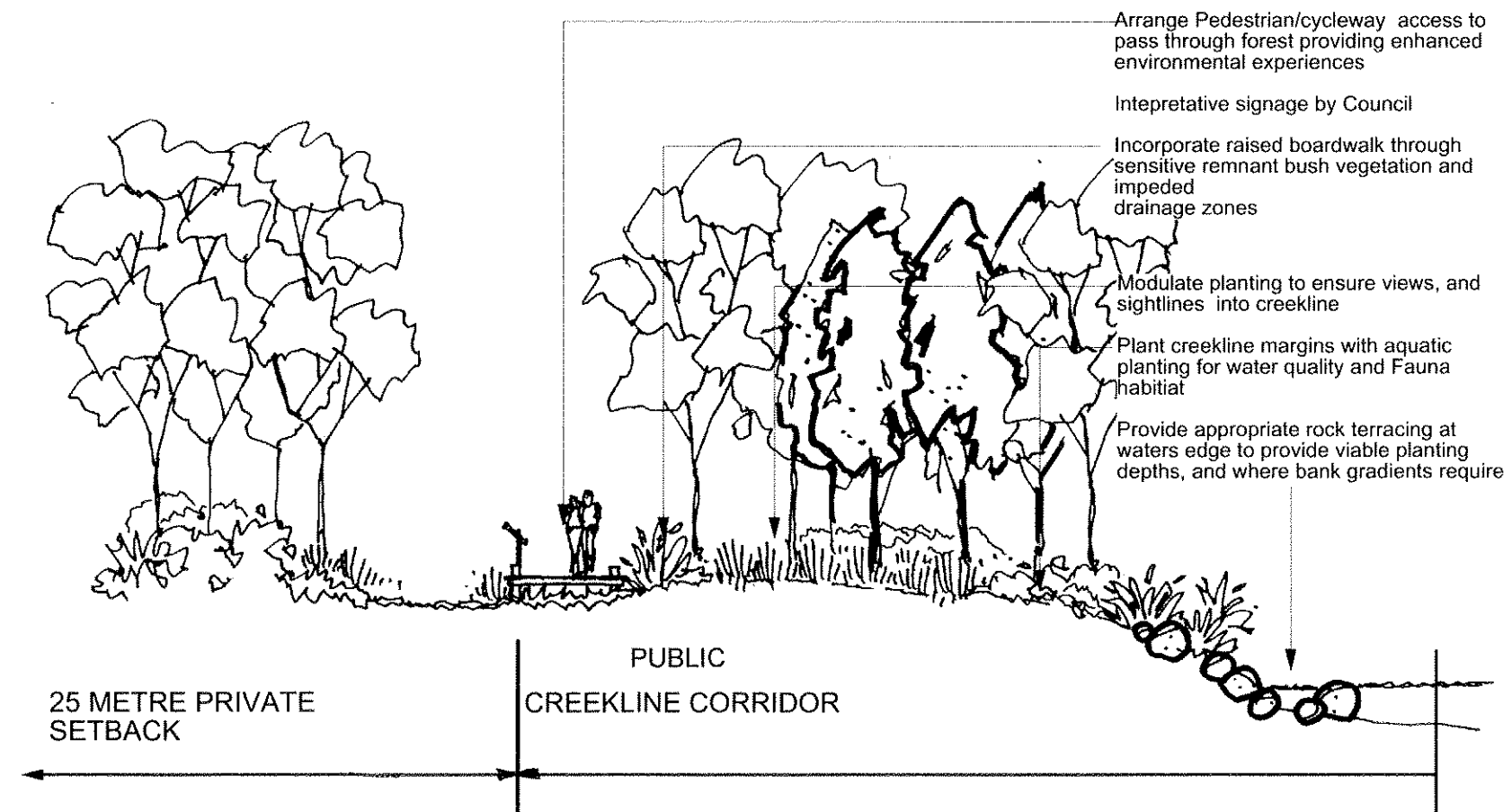
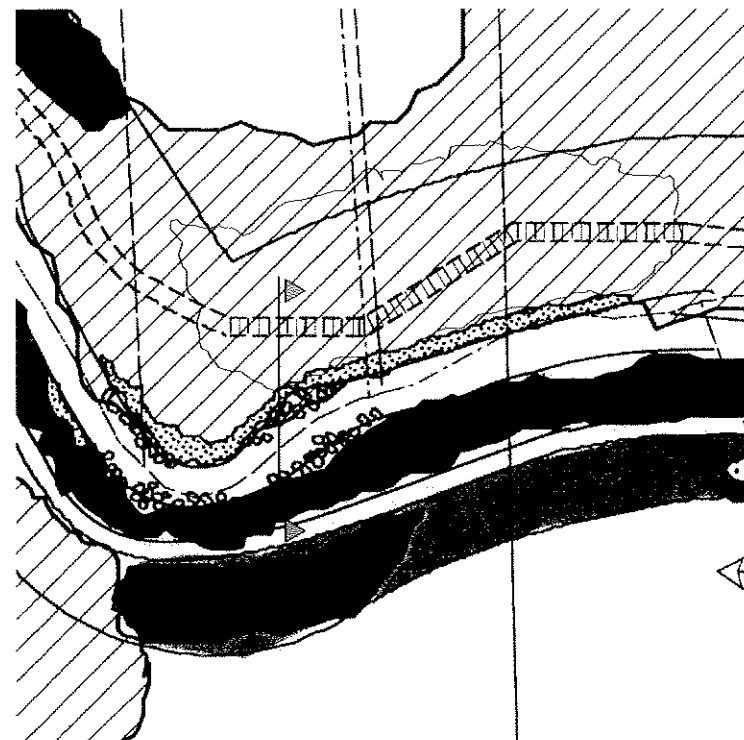
Plan: Remnant Bush



Section: Bush revegetation



Plan: Bush revegetation



Section: Remnant Bush

Guidelines

Location:

Adjacent remnant stands of native bush land vegetation, and revegetation zones along creekline reservations.

Principles:

Protect stands of Swamp Mahogany Forest to creekline margin.

Extend Pedestrian/cycleway to serve as access points to water. This may be in the form of boardwalks

Arrange Pedestrian/cycleway access to pass through forest providing enhanced environmental experiences.

Incorporate raised boardwalk through impeded drainage zones.

Extend Swamp Mahogany vegetation community through natural bushland revegetation techniques, to appropriate areas. Provide Bushland revegetation strategy.

Provide Environmental Impact Assessment of design proposals with Development Application (DA).

Plant creekline margins with aquatic planting for water quality and Fauna habitat. Provide appropriate terracing at waters edge for viable planting depths.

Provide appropriate rock terracing at waters edge to provide viable planting depths, and where bank gradients require.

Maintain Pedestrian/cycle sightlines and security surveillance through alignment of path and planting design. Modulate planting to ensure views, and sightlines into creekline.

Provide seating and litter bins at nodal points, viewing areas and linkage intersections



Outlet to be setback, from the waterway, a minimum of 13 multiplied by the diameter of the outlet pipe. e.g. 200mm pipe is setback 2.6 metres from the toe of the creek bed.

Create densely planted sedge area in front of outlet.

Enhance stormwater outlets with natural stone formed and placed to naturalistic pattern for bank stability and creekbed maintenance

Lay natural stone on concrete base to resist fast flow outlet scowing

Plant around outlets with hardy native groundcovers and aquatic for creekline margins

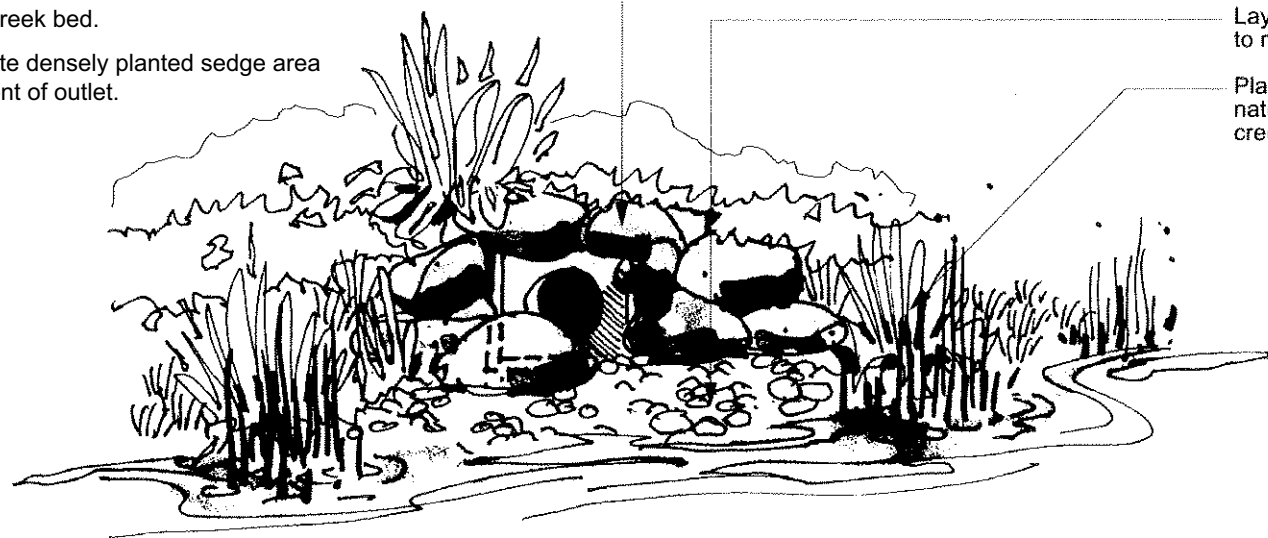
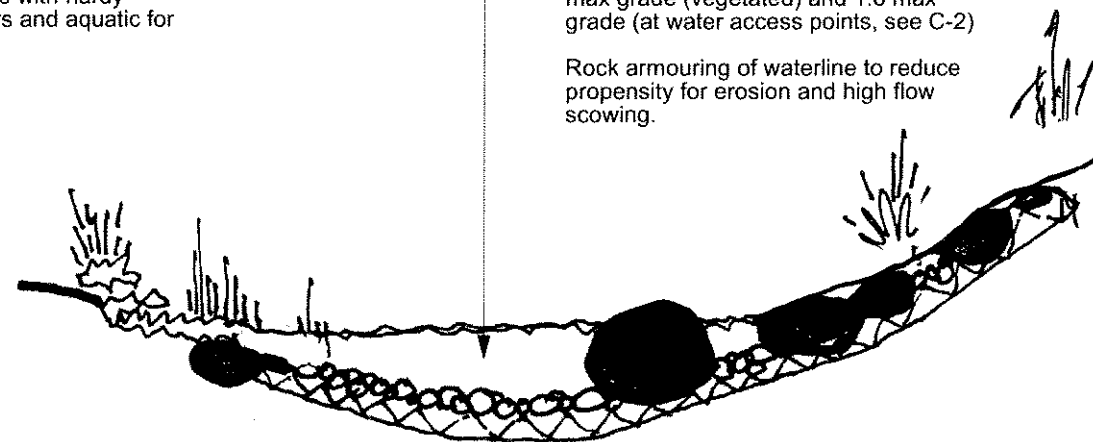


Illustration: Stormwater outlet

Regrade and stabilize creek banks to 1:3 max grade (vegetated) and 1:6 max grade (at water access points, see C-2)

Rock armouring of waterline to reduce propensity for erosion and high flow scowing.



Section: Rock armouring

Water management features such as weirs, stormwater outlets armouring to creekbed and creekbank should also meet water management and engineering specifications

Locate rock plunge weir to widened waterbody zones, where gradient allows

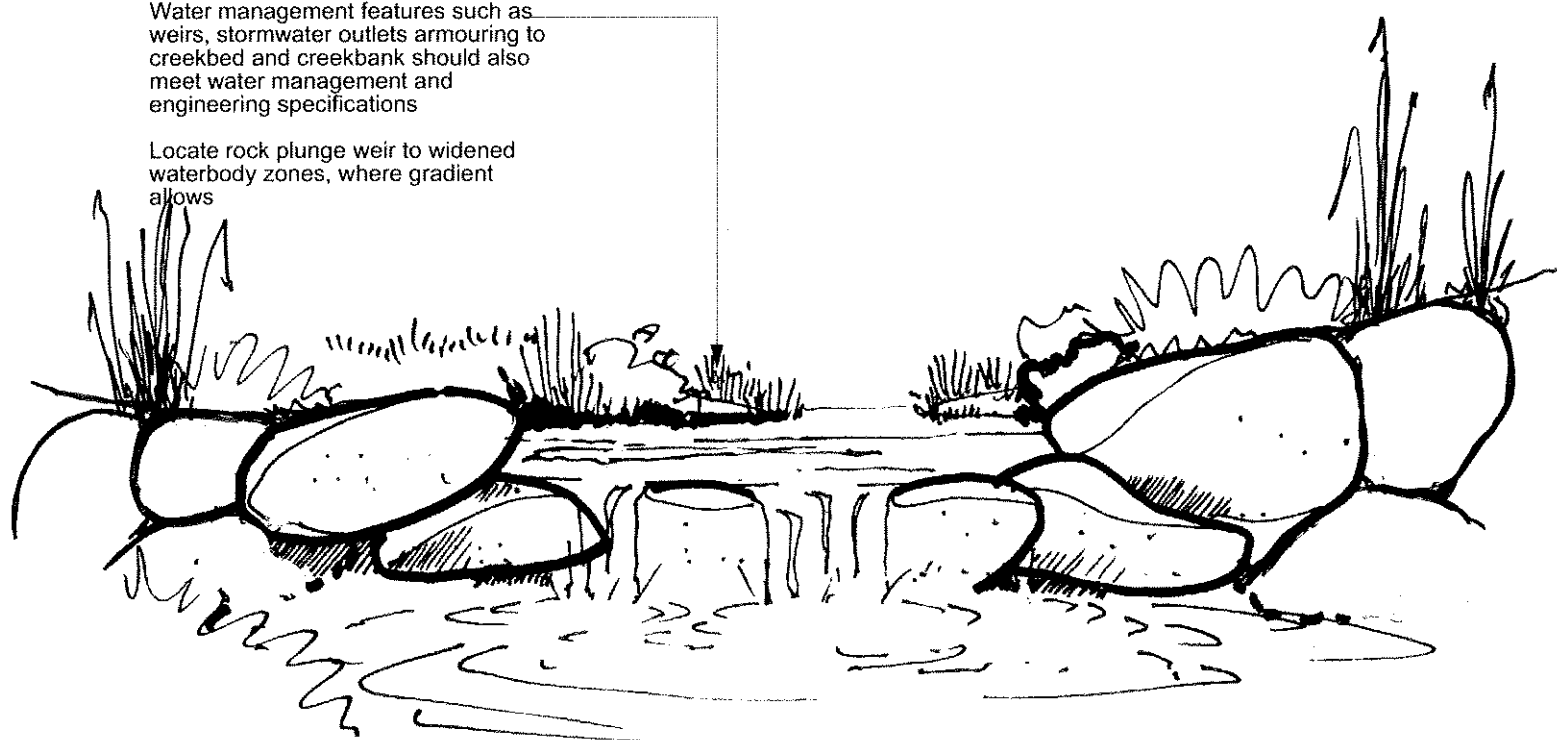


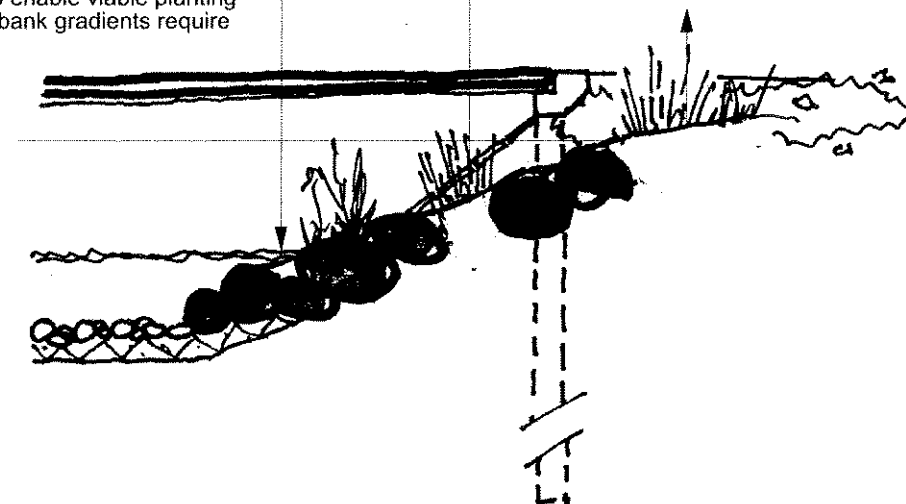
Illustration: Natural weir and rills

Regrade and stabilize creek banks to 1:3 max grade (vegetated) and 1:2 max grade (at bridge abutments) with suitable engineered stone or pavement pitching under bridge deck

Rock armouring of waterline to reduce propensity for erosion and high flow scowing.

Provide fauna access along creek bed under bridge structures.

Provide appropriate rock terracing at waters edge to enable viable planting depths where bank gradients require



Section: Bridge abutments

Guidelines

Location:

The 50 metre creekline reservation of Narrabeen and Fern Creek generally.

Adjacent Detention ponds, stormwater outlets and at creek waterbody widenings

Principles:

50 metre creekline reservation to be planned and implemented as multi-use open space corridors to incorporate water management features:

Locate rock plunge weir to widened waterbody zones, where gradient allows.

Rock work to be natural sandstone, placed and arranged in naturalistic patterns. Water management features such as weirs, stormwater outlets armouring to creekbed and creekbank should also meet water management and engineering specifications.

Incorporate raised boardwalk through impeded drainage zones.

Plant creekline margins with aquatic planting for water quality and Fauna habitat.

Provide appropriate rock terracing at waters edge to provide viable planting depths, and where bank gradients require.

Do not adjoin maintained grass areas directly to rock armouring zones - minimum 2 metre native planting buffer required.

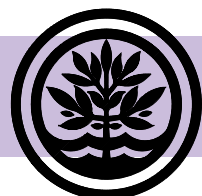
Provide widenings to creek waterbody where possible to slow water movement and provide additional environmental feature.

Provide seating and litter bins at nodal points, viewing areas and linkage intersections.

-Seats at litter bins at nominal 250 metre spacing

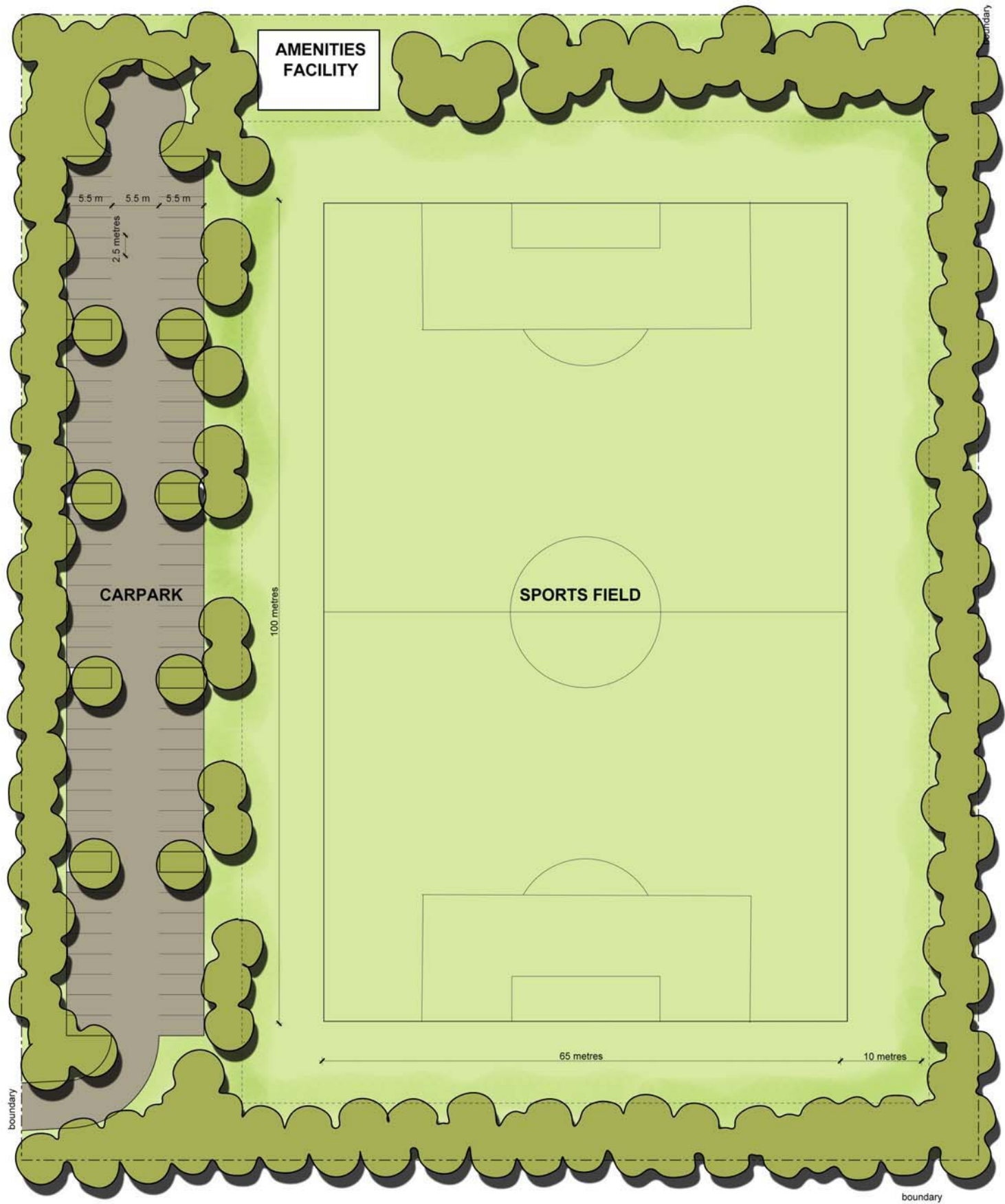
-Signs at nominal 100 metre spacings

-Solar lights at nominal 50 metre spacings



District Parks /
Active Sportfields





DISCLAIMER

NOTE:
The facilities and features on this plan are diagramatic only and the actual location will be subject to regular reviews of the Section 94 Plan by Council, and will also be dependant on survey, site considerations and compliance with all relevant standards and requirements.

All internal Sector Road Layouts/ Landscaping/ Open Space (Apart from Sectors 1, 2, 10, 11 and 12) are indicative only and reflect submissions by the Developers at the time of preparation of this Plan.

Council does not endorse or otherwise the proposals by the Developer in each Sector

Guidelines

Typical Infrastructure:

- Earthworks (incl re-contouring, levelling & sub-grade preparation)
- Drainage (incl sub-soil drainage)
- Water Service/Irrigation (bayonet fittings)
- Sealed Carpark (50 spaces incl kerb/ edging, surfacing & planting bays)
- Access/Pathways
- Lighting (Solar [10])
- Turfing (incl topsoiling & laying turf)
- Landscaping (incl topsoil, tree/ shrub planting, mulching, staking & edging)
- Fencing (painted timber post & rail/log barriers)
- Signage & Furniture (incl bench seats & litter bins)



LEGEND

MASTER PLAN 510SKO1A 1:500

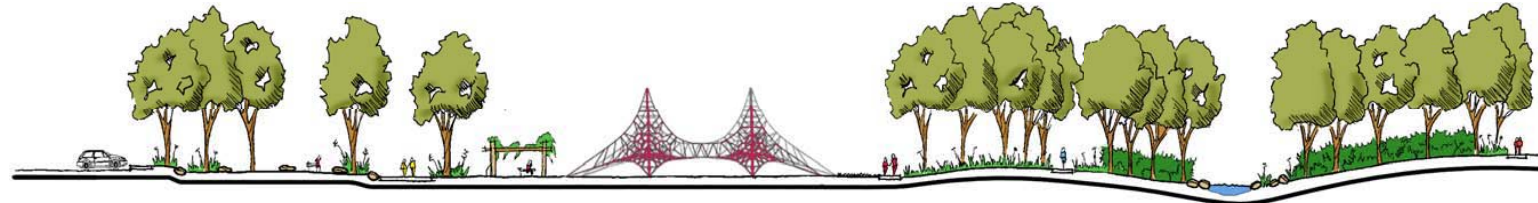
-  EXISTING TREE
-  PROPOSED NATIVE TREE & SHRUB PLANTING
-  FEATURE TREES
-  PROPOSED NATIVE SHRUB PLANTING
-  LAWN
-  PEDESTRIAN/CYCLE PATH
-  PERGOLA
-  SANDSTONE FLAGGING
-  SANDSTONE BOULDERS
-  SHADE STRUCTURE
-  SEATS
-  SAND SOFTFALL
-  DECOMPOSED GRANITE
-  BRIDGE
-  CONTOUR LINE



CREEK LINE IMAGES



SECTION A 1:250



SPACE NET PLAYGROUND



NOTES

- 1 Entry Feature**
The main entrance to the park features sculptural sandstone boulders and specimen tree planting. This area leads through to the central promenade and also functions as a meeting point.
 - 2 Central Promenade**
The grand promenade runs through the park bridging both sides across the creek and is defined by an avenue of feature specimen trees and sculptural rocks.
 - 3 Playground**
The playground features a gigantic rope and net structure with multiple combinations that creates play opportunities for a large number of children of all ages at the same time.
 - 4 Creekline Rehabilitation**
Fifty (50) metre reservation incorporating creek line rehabilitation and native bush regeneration. Reservation also features a pedestrian/cycle path and pocket recreational lawn areas.
 - 5 Carpark**
Provide additional car parking for visitors to the district park.
 - 6 Stage 2**
One Hectare allocated on the southern side of the creek for future development of the park.
- Planting Scheme**
An overall planting scheme has been developed for the park that aims to create a number of spaces, which provide opportunities for both large and small group gatherings, smaller 'parklets' for quiet relaxation and larger areas for informal recreation and play.
- A planting scheme has been created for each of the different main elements of the park; the streetscape, creek line corridor, buffer plantings and the main recreational area. Plant species for these areas is predominately native.

Guidelines

Typical Infrastructure:

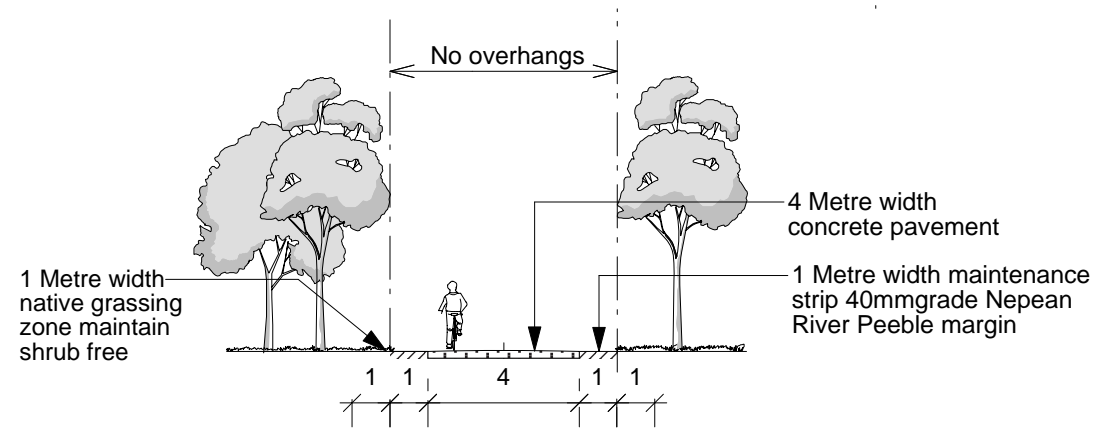
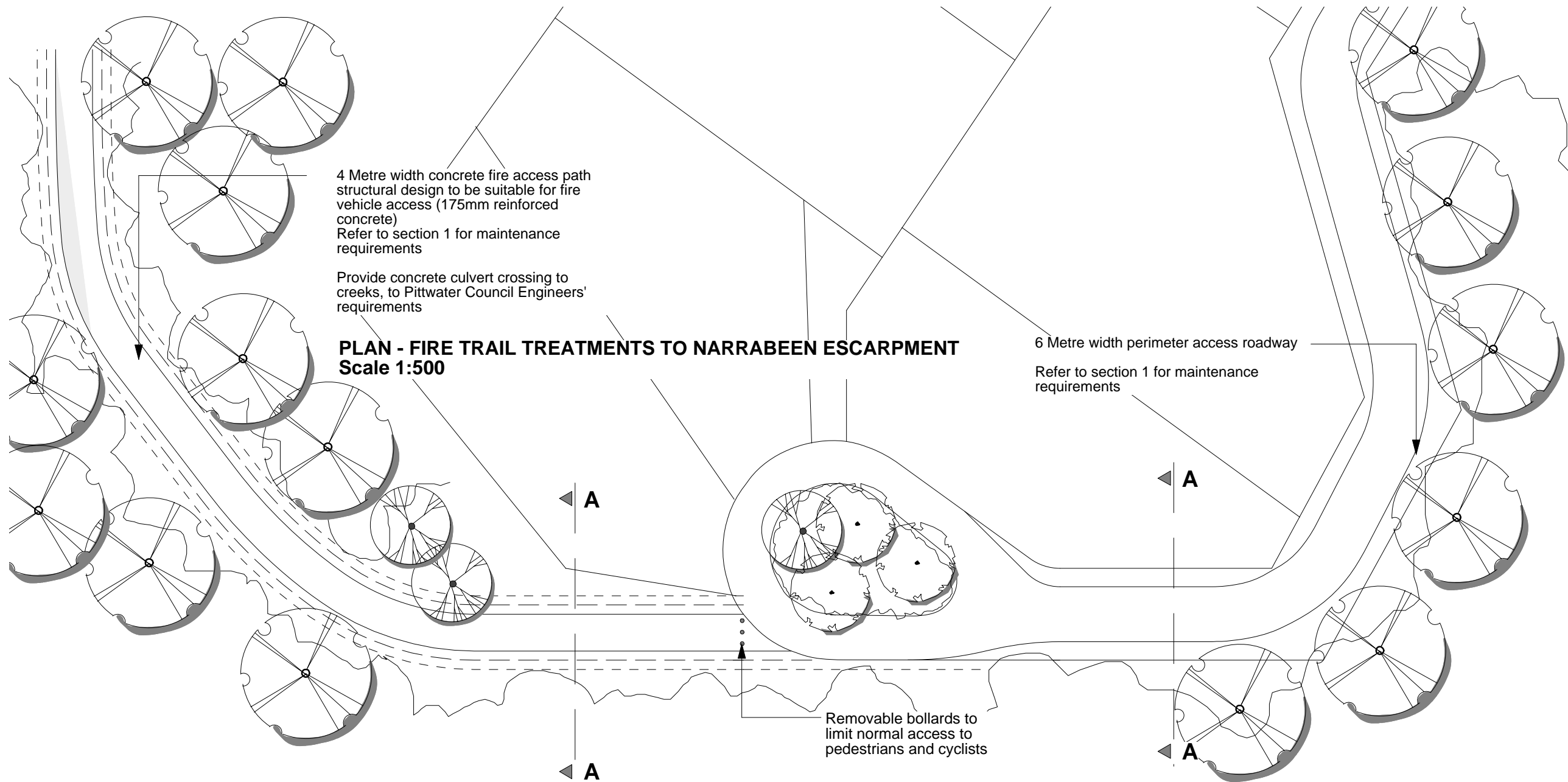
- Earthworks (incl re-contouring, levelling & sub-grade preparation)
- Structural Work (eg retaining walls)
- Drainage (incl sub-soil drainage)
- Water Service/Irrigation (bayonet fittings)
- Sealed Carpark (40 spaces incl kerb/edging, surfacing & planting bays)
- Access: Pathways/Bikepaths
- Lighting
- Turfing (incl topsoiling & laying turf)
- Landscaping (incl topsoil, tree/shrub planting, mulching, staking & edging)
- Fencing (painted timber post & rail/log barriers)
- Shelter (including electric BBQs/tables and seating)
- Public Amenities
- Signage & Furniture (incl bench seats, picnic tables & litter bins)
- Children's Playground Equipment & Furniture (including surfacing)
- Shade Structure (over playground)



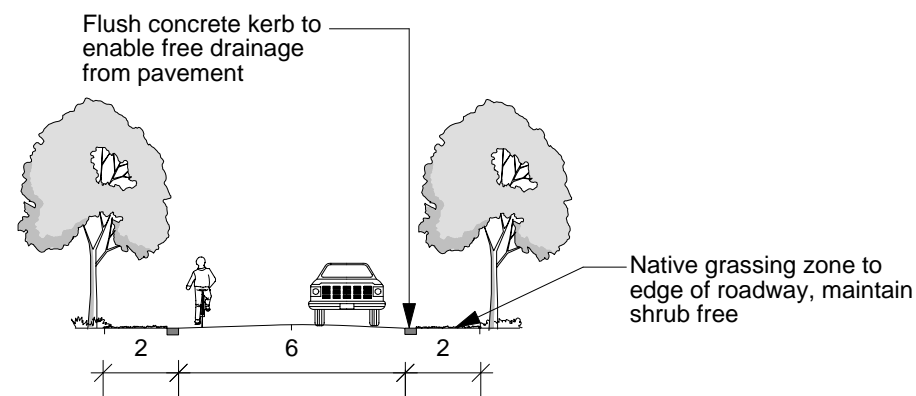


Fire Trail





SECTION AA - TYPICAL FIRE TRAIL THROUGH BUSH
Scale 1:200



SECTION BB - TYPICAL PERIMETER ROAD
Scale 1:200

Guidelines

Location:

Foot of Warriewood Escarpment extending along the western boundary of Sectors 5,6,8,9 and 10

Principles:

Provide fire trail or perimeter road facility as appropriate to relevant sectors.

Fire trail to comprise 4.0mtr width reinforced concrete pavement suitable for fire vehicle access (min 175mm slab)

Maintain total 8mtr width corridor to fire trail free of tree vegetation. Provide maintenance margins;

1.0mtr Nepean river pebble
1.0mtr Native grassing

Fall path surface one way to natural drainage direction.

Provide perimeter road in lieu of fire trail where residential allotments adjoin bushland.



Attachment 9 Report March 2016 Warriewood Valley Open Space - Southern Component of Central Local Park (Sector 9)

C12.1 Warriewood Valley Open Space - Southern Component of Central Local Park (Sector 9)

Meeting: Sustainable Towns and Villages Committee

Date: 19 March 2016

COMMUNITY STRATEGIC PLAN STRATEGY:

- **Recreational Management**
- **Corporate Management Strategy**

COMMUNITY STRATEGIC PLAN OBJECTIVE:

- To develop, manage and maintain recreational facilities to best practice standards in a cost effective and sustainable manner
- To provide the community with a broad range of quality natural and built assets in a sustainable manner to meet the needs of current and future generations

DELIVERY PROGRAM ACTION:

- To provide planning, design, investigation and enhancement of recreational facilities
 - Continue to implement Council's suite of developer contributions plans
-

1.0 EXECUTIVE SUMMARY

1.1 BACKGROUND

- 1.1.1 In 2008 Council resolved to purchase 9 Fern Creek Road to facilitate the delivery of the southern half of the Central Local Park in Warriewood Valley (commonly referred to as Fern Creek Park). 9 Fern Creek Road is within Sector 9 of the Warriewood Valley Release Area. The parcel is rectangular in shape and approximately 1.15 hectares in area and adjoins Fern Creek. The property is directly south of the northern portion of the Central Local Park which was delivered several years ago through the development of Sector 8.
- 1.1.2 At the time 9 Fern Creek Road was purchased the form and layout of development in Sector 9 was still uncertain and as such Council resolved that the land remain classified as Operational Land under the *Local Government Act 1993* to retain some flexibility around the future development of the sector.
- 1.1.3 In 2013, Australand (now known as Frasers Property), the owner of adjoining land parcels 11, 12 and 13 Fern Creek Road, put a formal land swap proposal to Council which would facilitate the development of its land holdings as well as achieve Council's preferred open space layout for the sector. This proposal involved swapping generally the northern portions of its three properties for the southern portion of Council's property (refer to **Attachment 2**).
- 1.1.4 Between May 2014 and May 2015 significant consultation occurred with the adjoining landowners and the Warriewood Residents Association (WRA) to examine Frasers' proposal as well as other potential options for the southern portion of the Central Local Park.
- 1.1.5 A revised concept plan with a larger area provided for the park was endorsed a by Council for the land swap on 18 May 2015 when it authorised the General Manager to commence negotiations with Frasers (refer to **Figure 1** and **Figure 2**).

- 1.1.6 This revised concept included an additional 1,800 square metres for the park area (not including creek line corridor) and an increase in the width of the park in comparison to the original Frasers proposal by moving the roadway further from the creek line corridor.

1.2 OUTCOME OF NEGOTIATIONS

- 1.2.1 Following Council's decision of 18 May 2015, Council and Frasers have negotiated to finalise the terms of the land swap agreement.
- 1.2.2 In October 2015 the respective General Managers of Frasers and Council signed a Memorandum of Understanding addressing the key aspects of the transaction.
- 1.2.3 Both parties have received independent valuation advice and have negotiated and reached an agreement on an appropriate cash adjustment based on the proposed land transfers. The monetary gain as a result of the land swap is required to be reinvested into the Section 94 fund to implement the plan endorsed by Council and assist with delivering the remaining infrastructure and services required by the Release Area.
- 1.2.4 In terms of the area of land to be transferred between the parties, the land swap will involve:
- Approximately 5,374 square metres of Council land being transferred to Frasers, and
 - Approximately 11,826 square metres of land, made up of 5,984 square metres of land for public reserve and 5,842 metres of land for creek line corridor, being transferred to Council.
- 1.2.5 The proposed land swap will mean:
- Council will be able to deliver a park approximately 600 square metres larger than could be achieved on the current lot – approximately 9,900 square metres (excluding creek line corridor land). 9 Fern Creek Road in its current configuration is approximately 9,300 square metres (excluding creek line corridor land).
 - Frasers delivering important infrastructure which is critical to unlocking development opportunities for the northern half of Sector 9, including:
 - the extension of Fern Creek Road and the construction of a new east-west road connecting Fern Creek Road with the eastern half of Sector 9.
 - the section of stormwater infrastructure within the Fern Creek Road extension.
 - The capacity to underground the high voltage power lines that currently run along the boundary of 9 and 12 Fern Creek Road, with the costs agreed to be shared between Council and Frasers. Note negotiations are currently underway with other landholders.
- 1.2.6 Following agreement on the key terms of the proposed transaction, Council and Frasers have worked to finalise a Deed of Agreement which stipulates the details of how the land swap transaction will occur. This document once signed will be legally binding on the parties. The deed represents the final agreed position of Council staff and Frasers (refer to **Attachment 5**). Attached to the deed is the agreed land swap plan referred to as Annexure A.

1.3 NEXT STEPS

- 1.3.1 In order for the land swap to occur an amendment to Pittwater Local Environmental Plan 2014 and development application will be required.

- 1.3.2 Council's Commercial Property and Projects Business Unit will engage an independent planning consultant to prepare and lodge these applications on Council's behalf. To mitigate potential probity issues, an independent planning consultant will also be engaged to assess these applications on behalf of Council's Planning and Assessment Business Unit.
- 1.3.2 The transfer of land and funds will take place at the completion of these steps. It is estimated that it could take up to 9 to 12 months for these aspects of the transaction to be completed.

2.0 RECOMMENDATION

1. ***That Council note:***
 - a. ***The comprehensive community engagement that has occurred in relation to this matter***
 - b. ***The terms of the Memorandum of Understanding***
 - c. ***The independent valuation advice***
 - d. ***The terms of the Deed of Agreement***
 - e. ***That the cash adjustment from the proposed land transfers will be reinvested into the Section 94 fund to implement the plan as endorsed by Council.***
 - f. ***The findings of the probity report prepared by Procure Group (Attachment 6).***
2. ***That Council endorse the proposed terms of the land swap and authorise the General Manager to sign the deed of agreement for the land swap (Attachment 5).***
3. ***That Council support the progression of the land swap agreement, comprising:***
 - a. ***Preparation and lodgement of a Planning Proposal to amend Pittwater LEP 2014 to reallocate dwelling yield and rezone the future park to a recreation zone as outlined in the Deed of Agreement,***
 - b. ***Preparation and lodgement of a development application to subdivide/consolidate the existing land parcels to enable the transfer of land to occur.***
4. ***That a future report be brought to Council at the completion of the transaction.***
5. ***That Council endorse the concept masterplan for the southern component of the Central Local Park (Figure 2) to enable it to be progressed following the land swap.***

3.0 BACKGROUND

3.1 PURPOSE

In accordance with Council's resolution of 18 May 2015, the purpose of this report is to:

- Inform Council of the outcomes of the negotiations with Frasers Property (Frasers).
- Outline the key terms of the Memorandum of Understanding.
- Inform Council of the valuation advice received and the financial adjustment agreed between the parties.
- Outline the key terms of the Deed of Agreement.
- Present the probity advisor's audit report on the negotiations.
- Outline the next steps to finalise the land swap agreement.

3.2 BACKGROUND

3.2.1 Open Space Requirements in Warriewood Valley

To ensure that the wider Pittwater community is not burdened as a result of the development of the Warriewood Valley Release Area, the Warriewood Valley Section 94 Contributions Plan (Section 94 Plan) has been prepared to enable Council to impose as a condition of development consent a requirement to make a contribution toward the provision of public infrastructure and services.

In relation to open space and recreation facilities, the Section 94 Plan identifies a demand for a total of 18.7 hectares of open space and recreation facilities for both passive and active use to service the forecast population of Warriewood Valley. The Section 94 Plan identifies that within Sectors 8 and 9 of the Release Area, either side of Fern Creek, approximately 2.1 hectares (exclusive of creek line corridor land) of passive open space land will be delivered. This open space area is referred to as the Warriewood Central Local Park.

As outlined in previous reports to Council, it is Council's intention that the Central Local Park be generally linear in shape, with a central bulge either side of Fern Creek, connected by a pedestrian/cyclist bridge, providing for passive recreation opportunities.

The northern portion of the Central Local Park was delivered several years ago as part of the development of Sector 8 by Australand. The northern half of the park includes a playground component, a large open grassed area, picnic facilities including barbeques, a public amenities facility and associated car parking.

The southern portion of the Central Local Park is still to be delivered. Council's intention is that the southern portion of the park mirrors the shape of the northern half of the park.

3.2.2 Purchase of 9 Fern Creek Road

In 2008 an opportunity arose to acquire a parcel of land within Sector 9. The property, 9 Fern Creek Road, is rectangular in shape and approximately 1.15 hectares in area and adjoins Fern Creek and is directly south of the northern portion of the Central Local Park. At the time, the parcel of land was considered to be the most appropriate available land in Sector 9 for open space purposes.

On 21 April 2008 Council resolved to purchase 9 Fern Creek Road to facilitate the delivery of the remaining half of the park. The Council resolved that the land remain classified as Operational Land under the *Local Government Act 1993* upon acquisition to retain some flexibility around the future development of Sector 9.

3.2.3 Land swap proposal and Council resolution of 19 May 2014

Unlike Sector 8, the development of Sector 9 has not been progressed via a sector approach. In recognition of the protracted and unsuccessful attempts by landowners to rezone the sector for residential development, Council initiated the rezoning of the sector, allowing individual land parcels within the sector to develop independently.

Frasers own three parcels of land at the northern end of Sector 9, adjoining Fern Creek – 11, 12 and 13 Fern Creek Road (refer to **Attachment 1**). Although zoned for residential development the parcels are land locked and, as such, in order to be developed would need to establish legal access.

In 2013, Australand (now known as Frasers Property and to avoid confusion referred to as Frasers Property from this point in the report), the owner of adjoining land parcels 11, 12 and 13 Fern Creek Road, put a formal land swap proposal to Council to facilitate both the development of their land holdings as well as Council's preferred open space layout for the sector (refer to **Attachment 2**).

On 19 May 2014 this initial proposal was put forward to Council for consideration. Council resolved as follows:

- “1. That Council give in principle support for the development of a large local park in Sector 9 of Warriewood Valley.*
- 2. That the General Manager enter into discussions with surrounding land owners with a view to achieving an understanding of the possibilities within that area.*
- 3. That Lot 5 // DP 736961 be valued at its highest and best use.*
- 4. That at the conclusion of discussions, and before reaching a final agreement, the General Manager is to report back to Council.*
- 5. That in parallel to the General Manager’s negotiations that community consultation is undertaken with residents of Warriewood Valley and any other interested parties with regard to a large local park.”*

3.2.4 Updated and larger land swap proposal following community consultation

Following this meeting extensive consultation occurred with the surrounding land owners and the Warriewood Residents Association. This consultation included:

- Mail out to every resident and land owner in Warriewood Valley advising of the preliminary land swap proposal.
- Notification on Council’s website and in Manly Daily.
- Public meeting held on 17 October 2014.
- Discussions with owners of 11, 12 and 13 Fern Creek Road (Australand), 4 Fern Creek Road (private owner), 5 Fern Creek Road (private owner), 2 Fern Creek Road (ABAX Contracting) and 1 Fern Creek Road (Dragon Eye Properties).
- Numerous meetings with Warriewood Residents Association to discuss land swap proposal as well as the group’s alternate proposal

Following considerable consultation and negotiation with the adjoining land owners and community, the land swap as initially proposed by Frasers was modified to increase the width of the open space component to maximise the recreational utility of the future park and ensure that there is no net loss of public open space.

A revised concept plan with a larger area provided for the park was endorsed by Council for the land swap on 18 May 2015 when it authorised the General Manager to commence negotiations with Frasers (refer to Figure 1 and Figure 2).

This revised concept included an additional 1,800 square metres for the park area (not including creek line corridor) and an increase in the width of the park in comparison to the original Frasers proposal by moving the roadway further from the creek line corridor.

The consultation provided an opportunity to analyse Frasers’ initial proposal, consider all other alternatives and incorporate pertinent issues into a revised park layout. Through this consultation it was confirmed that in the context of Council’s limited resources and the other competing infrastructure priorities in the Valley, the land swap proposal, as modified, remains the preferred outcome for the sector.

On 18 May 2015 a concept plan for the proposal was put forward to Council for endorsement for the purpose of progressing negotiations with Frasers on the other aspects of the agreement. Council’s resolution is as follows:

- “1. That the Concept Layout Plan for the Central Local Park, in particular the southern half located within Sector 9 be endorsed as an indicative plan only and the General Manager be authorised to enter into negotiations with Australand, the owner of the adjoining lands to progress this outcome.*
- 2. That the transaction be captured by a Memorandum of Understanding between the parties and be based on the following:*

- *The valuation of the lands to be swapped being based on highest and best use.*
 - *A financial adjustment to be made noting the difference in land valuations.*
 - *The undergrounding of the overhead power where practical as per Ausgrid requirements.*
 - *That undergrounded stormwater management along the drainage easement be included.*
 - *The direct provision of full width road infrastructure (excluding parking bays on the reserve side) by Australand.*
 - *The land being swapped to be rezoned to be consistent with the intended future land use. In this regard:*
 - I. *the part of the land owned by Council currently zoned residential with no dwelling yield would be rezoned to residential with a potential yield of 32 dwellings per developable hectare;*
 - II. *the part of the land owned by Australand currently zoned for residential would be rezoned to recreational and the adjoining land not being swapped provided a pro-rata development potential where this is already a lower fixed yield.*
 - *That the landswap area be calculated from the edge of the riparian zone (at 25m).*
3. *The creekline corridor acquisition is completed as a separate financial transaction as per the S94 Plan prior to the landswap to establish net areas of land involved.*
 4. *An area for area swap of land so that the net open space compared to the current rectangle is not reduced.*
 5. *That an updated valuation be obtained from an independent Valuer to ascertain the likely land values of the various parcels involved in the overall transaction.*
 6. *That a probity advisor be appointed to oversee and report on this transaction.*
 7. *That a report be brought back to Council detailing the negotiation, the Memorandum of Understanding and the financial aspects of the transaction."*

A copy of the concept plan endorsed by Council on 18 May 2015 is attached to report (refer to **Attachment 3**).

3.3 POLICY IMPLICATIONS

The proposed land swap has implications for layout of the southern portion of the Central Local Park but also the future roads within the sector. The land swap proposal therefore has implications for the layout of developments at the northern end of the sector and, in turn, the assessment of development applications against Pittwater 21 Development Control Plan (DCP).

Due to the ongoing uncertainty around the shape of the southern portion of the Central Local Park and the location of the future east-west road within the sector a number of developments within Sector 9 have been unable to be progressed beyond a certain point. It is now critical that the park and road layout for the sector be confirmed to enable the development of the sector to proceed.

3.4 RELATED LEGISLATION

Environmental Planning and Assessment Act 1979

Environmental Planning and Assessment Regulation 2000

Local Government Act 1993

Pittwater Local Environmental Plan 2014

3.5 FINANCIAL ISSUES

3.5.1 Budget

As agreed and outlined in the deed, the majority of costs associated with the land swap agreement are to be shared equally between the parties.

The monetary gain as a result of the land swap is required to be reinvested into the Section 94 fund to assist with delivering the remaining infrastructure and services required by the Release Area as endorsed by Council.

3.5.1 Resources Implications

As stated above, the monetary gain as a result of the land swap is required to be reinvested into the Section 94 fund to assist with delivering the remaining infrastructure and services required by the Release Area as endorsed by Council.

4.0 KEY ISSUES

4.1 SUMMARY OF NEGOTIATIONS

Following Council's decision of 18 May 2015, Council and Frasers have negotiated to finalise the terms of the land swap agreement.

4.1.1 Key amendments to land swap agreement

Following Council's meeting of 18 May 2015, discussions commenced with Frasers to confirm the area of land to be swapped as part of the agreement. Based on Council's endorsed concept plan, a detailed land swap plan was prepared identifying the areas of land to be swapped and retained by the parties. This Plan ultimately formed Annexure A to the Memorandum of Understanding (MOU) that was later negotiated and agreed to by the parties.

The key differences between the land swap plan originally proposed by Frasers in 2013/14 (**Attachment 2**) and the land swap plan now agreed to between the parties are as follows:

- The park area is increased by over 1,800 square metres (not including creek line corridor land) and the development area has been reduced.
- The width of the park has been increased along its length – at the narrowest point the width of the park has been increased by approximately 17 metres (not including creek line corridor land) and at its widest point the park has been increased by approximately 8 metres (not including creek line corridor land).

4.1.2 Memorandum of Understanding

Once the land swap areas were agreed to, Council and Frasers worked to finalise a MOU which would guide the further work that needed to be done to finalise the agreement. The MOU was not intended to be legally binding, but rather address the main issues related to the transaction and identify the terms of a future deed of agreement, which would be binding on the parties once signed.

In October 2015 the respective General Manager of Frasers and Council signed a MOU addressing the following matters:

- Area of land to be swapped,
- Creek line corridor dedication and offset,
- Undergrounding of high voltage power lines,
- Road and stormwater construction,
- Necessary amendments to Pittwater LEP 2014,
- Development application to subdivide/consolidate existing lots,
- Costs,
- Probity advisor.

A copy of the agreed MOU is attached to this report (**Attachment 4**).

4.1.3 Deed of Agreement

Since October 2015 Council and Frasers have worked to finalise a Deed of Agreement which stipulates the details of how the land swap transaction will occur. This document once signed will be legally binding on the parties.

During this time a surveyor was also engaged by Council to review the land swap proposal and confirm the areas of the land that would be swapped and retained by the parties.

The Deed of Agreement is attached to this report (refer to **Attachment 5**). This deed represents the final agreed position of Council staff and Frasers. Attached to the deed is the agreed land swap plan referred to as Annexure A. The figures in this plan are based on the figures provided by Council's surveyor.

The key terms of the deed are discussed in detail at section 4.2 of this report.

4.2 KEY TERMS OF DEED

4.2.1 Area of land to be swapped

Figure 1 identifies the area of land to be swapped between Council and Frasers as well as the area of land that will be retained by each party. Figure 1 should be read in conjunction with Table 1, which specifies the exact area of land proposed to be swapped and retained by the parties. In summary, the two indicate that under the proposal:

- Approximately 5,374 square metres of Council land being transferred to Frasers, and
- Approximately 11,826 square metres of land, made up of 5,984 square metres of land for public reserve and 5,842 metres of land for creek line corridor, being transferred to Council.
- At its narrowest point, the park will be 25 metres wide (not including the creek line corridor). Combined with the creek line corridor, the park will be 50 metres wide at its narrowest point.
- At its widest point, the park will be 51 metres wide (not including the creek line corridor land). Combined with the creek line corridor, the park will be 76 metres wide at its widest point.
- At the centre of the park, at the point where the two halves of the park will be joined by a bridge, the Central Local Park will be approximately 175 metres wide and approximately 280 metres long.

Table 2 details the land use areas proposed under the land swap agreement. In summary, Table 2 indicates that under the proposal:

- The public park (excluding creek line corridor land) will be approximately 9,900 square metres.
- Combined, the public park and creek line corridor will total approximately 18,000 square metres.
- The developable land, including the public road, will total approximately 12,600 square metres.

Compared to 9 Fern Creek Road in its current configuration which is approximately 9,300 square metres (excluding creek line corridor land), the proposed park will be increased by over 600 square metres – approximately 9,900 square metres (excluding creek line corridor land).

Based on this proposal, Council staff have developed a concept masterplan for the southern component of the Central Local Park (refer to Figure 2). It is intended that the southern half of the Central Local Park will complement the northern half. As indicated on Figure 2, the intention is to provide a large grassed area with a perimeter shared path, picnic shelters, barbeques, car parking and landscaping.

The two halves of the park will be connected by a bridge and paths wide enough for pedestrians and cyclists.

The embellishment of the park will be funded through the Section 94 Plan, and therefore the timing of these works will be subject to the availability of funds.

In addition, Frasers will fund a number of infrastructure improvements as described in section 4.2.4 below.

Table 1: Summary of land proposed to be swapped and retained by land owners

Legal Description	Address	Land owner	Land to be swapped (m ²)	Land to be retained (m ²)	Total (m ²)
5/736961	9 Fern Creek Road	Pittwater Council	5,374.3	6,215.8 (3898.8 exclusive of creek line land)	11,590.1
11/1092788	11 Fern Creek Road	Frasers Property	5,801.4 (3161.4 exclusive of creek line corridor land)	3,174	8,975.4
12/1092788	12 Fern Creek Road	Frasers Property	3,917.8 (2408.8 exclusive of creek line corridor land)	4,075.8	7,993.6
13/1092788	13 Fern Creek Road	Frasers Property	2,106.3 (413.3 exclusive of creek line corridor land)	0	2,106.3
Pittwater Council Total			5,374.3	6,215.8 (3898.8 exclusive of creek line land)	11,590.1
Frasers Property Total			11,825.5 (5986.5 exclusive of creek line corridor land)	7,249.8	19,075.3
Total (m²)			17199.8	13465.6	30,665.4

Table 2: Summary of proposed land use areas

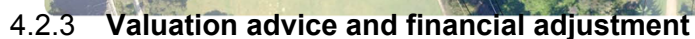
Legal Description	5/736961	11/1092788	12/1092788	13/1092788	Total (m²)
Address	9 Fern Creek Road	11 Fern Creek Road	12 Fern Creek Road	13 Fern Creek Road	
Land owner	Pittwater Council	Frasers Property	Frasers Property	Frasers Property	
Creek line corridor land (m ²)	2,317	2,640	1,509	1,693	8,159
Public park (m ²)	3,898.8	3,161.4	2,408.8	413.3	9,882.3
Public road (m ²)	1,847.3	789.5	675.3	0	3,312.1
Development land (m ²)	3,527	2,384.5	3,400.5	0	9,312
Total (m²)	11,590.1	8,975.4	7,993.6	2,106.3	30,665.4

Figure 1: Proposed areas to be swapped and retained by land owners



4.2.2 Creek line corridor transfer

The Warriewood Valley Section 94 Contributions Plan identifies sections of creek line land within the catchment to be acquired and reconstructed in order to manage stormwater runoff and flooding issues generated by the development within the Release Area. The creek land within 11, 12 and 13 Fern Creek Road currently owned by Frasers is also proposed to be transferred to Council as part of the land



Both parties have received independent valuation advice and have negotiated and reached an agreement on an appropriate cash adjustment based on the proposed land transfers.

Refer to the corresponding Confidential Report in the Council Agenda.

4.2.4 Infrastructure provision

In relation to the provision of infrastructure, the parties have agreed:

- Frasers will fund and construct both the extension of Fern Creek Road and the construction of a new east-west road connecting Fern Creek Road with the eastern half of Sector 9.
- Frasers will fund and construct the section of stormwater infrastructure that is required to be located within the Fern Creek Road extension.
- Council will fund and construct the section of stormwater infrastructure between Fern Creek Road (as constructed by Frasers) and Fern Creek.
- The cost of undergrounding the high voltage power lines that current run along the parties' common boundary at 9 and 12 Fern Creek Road will be shared equally. This work will be undertaken by a third party contractor, likely in conjunction with the undergrounding of the other sections of high voltage wires within the sector. Note negotiations are currently underway with other landholders.

The details related to these arrangements will be captured in a Planning Agreement that will accompany the future development application (this is discussed in further detail at section 4.4.3).

4.3 PROBITY AUDIT OF NEGOTIATIONS

Given their previous involvement in several key projects related to the Warriewood Valley Release Area, Procure Group was engaged to oversee the land swap negotiations.

The tasks undertaken by Procure Group have included:

- Overseeing negotiations and where required providing probity advice and services in regard to the negotiations.
- Attendance at all meetings between Frasers and Council officers where it could be deemed that Council has a potential conflict of interest.
- Undertaking of a probity audit at the conclusion of the negotiations and preparation of a probity report summarising the management of probity matters.

The report prepared by Procure Group is attached to report (refer to **Attachment 6**).

4.4 NEXT STEPS

4.4.1 Deed of Agreement

If supported by Council, the General Manager and the relevant executive/s from Frasers will sign the Deed of Agreement which will establish the legal framework and the risk and obligations of each party to enable the transaction to be completed.

4.4.2 Planning Proposal

As outlined in the MOU and the deed, a Planning Proposal will be required to reallocate dwelling yields to the reconfigured land parcels, amend the maximum building height permitted and rezone the proposed park to a recreation zone.

In regard to the reallocation of dwelling yields:

- The part of land owned by Council and proposed to be transferred to Frasers will be allocated a dwelling yield based on a density of 32 dwelling per hectare.
- The part of the land currently and to be retained by Frasers will be allocated a pro-rata yield based on the current density, which varies from between 10 and 32 dwelling per hectare.

Council's Commercial Property and Projects Business Unit will engage an independent planning consultant to prepare and lodge the Planning Proposal on Council's behalf. To mitigate potential probity issues, an independent planning consultant will also be engaged to assess the Planning Proposal on behalf of Council's Planning and Assessment Business Unit

A future report will be brought to Council after the lodgement and assessment of the Planning Proposal.

4.4.3 Development Application

Also outlined in the MOU and deed is the need for a future development application to subdivide and consolidate the parcels of land to allow the relevant parcels of land to be transferred between the parties.

As outlined above at section 4.2.4, a Planning Agreement is required to be entered into by the parties to capture the infrastructure works that will be undertaken by Frasers as part of this transaction. The draft Planning Agreement will be lodged and exhibited with the development application. Once agreed to by Council, the obligations of the Planning Agreement will carry to the title of each new parcel of land created.

Again, Council's Commercial Property and Projects Business Unit will engage an independent planning consultant to prepare and lodge this application and a separate planning consultant will be engaged assess the application.

4.4.4 Settlement

The transfer of land and funds will take place following:

- Notification of LEP amendment by Department of Planning and Environment,
- Approval of development application by Council,
- Entering into of the Planning Agreement, and
- Registration of the Planning Agreement on title.

It is estimated that it could take up to 9 to 12 months for these aspects of the transaction to be completed.

5.0 ATTACHMENTS / TABLED DOCUMENTS

Attachment 1 – Aerial image of Sector 9

Attachment 2 – Original land swap proposal – Reported to Council 19 May 2014

Attachment 3 – Concept Plan – Endorsed by Council 18 May 2015

Attachment 4 – Signed Memorandum of Understanding

Attachment 5 – Deed of Agreement

Attachment 6 – Probity Report by Procure Group

6.0 SUSTAINABILITY ASSESSMENT

6.1 GOVERNANCE & RISK

6.1.1 Community Engagement

As per the Council recommendation of 19 May 2014, Council staff have extensively engaged with Sector 9 land owners, the local resident group (Warriewood Residents Association) and the broader community. The land swap proposal was amended to respond to the concerns raised by the stakeholders during this consultation.

6.1.2 Risk Management

Strict probity protocols have been put in place throughout the negotiations to manage these risks. Council intends to continue to engage a probity advisor to oversee the completion of the transaction, in particular the assessment of the Planning Proposal and development application.

6.2 ENVIRONMENT

6.2.1 Environmental Impact

The creek line corridors through the Warriewood Valley generally have a 50 metre wide central corridor that contains riparian habitat as well as shared path connections. These corridors provide important continuous wildlife connections from the escarpment to the Warriewood Wetlands.

The Central Local Park is dissected by Fern Creek as a central environmental feature. The northern half of this corridor has already been acquired and co-joins the recreational open space. The southern half of the creekline corridor will be acquired through this transaction and will adjoin the recreation space within the southern half of the park. This will ensure there is a broad expanse of adjoining open space that can suitably integrate both environmental and recreational requirements, providing a gateway to the escarpment to the west

6.2.2 Mitigation Measures

The environmental impact of the proposed recreational area is minimal and will generally be similar to the impact of the current grassed paddocks, albeit better maintained. The proposed perimeter pathway also provides a managed edge between the riparian plantings and the recreational area. The riparian corridor will provide an important connection to the escarpment, providing habitat for aquatic and terrestrial species. In this regard it will be important that cats and dogs of the adjoining residential development are effectively managed to prevent fauna loss.

6.3 **SOCIAL**

6.3.1 **Address Community Need & Aspirations**

The land swap proposal, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9 by integrating the open space with the existing park in Sector 8 and unlocking the development opportunity of the remaining portion of 9 Fern Creek Road and allowing development to be more appropriately positioned on surrounding properties. The proposal will result in a similar open space layout to the existing arrangement on the northern side of Fern Creek (within Sector 8), thereby achieving a more integrated and cohesive open space arrangement with the existing park.

6.3.2 **Strengthening local community**

The land swap proposal, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9. In conjunction with the bridge connection and other pathways, the proposal will significantly strengthen the local communities to the south, north and east adding to the liveability and appeal of Warriewood Valley.

6.4 **ECONOMIC**

6.4.1 **Economic Development**

The land swap, in reconfiguring the open space provision along the creek line, will facilitate a better open space and development outcome for the northern part of Sector 9 by integrating the open space with the existing park in Sector 8 and unlocking the development opportunities within Sector 9. Unlocking the development opportunities in Sector 9 is vitally important to ensuring the timely delivery of infrastructure under the Section 94 Plan.

The monetary gain as a result of the land swap is required to be reinvested into the Section 94 fund to assist with delivering the remaining infrastructure and services required by the Release Area. These could be utilised specifically to achieve other identified open space outcomes, in particular the potential acquisition of land in the Southern Buffer for future playing fields.

Report prepared by
Tija Stagni, Local Infrastructure Coordinator

Arianna Henty
MANAGER, COMMERCIAL PROPERTY & PROJECTS



Aerial Photography - 2015
 Licensed from NearMap.
 This plan is not survey accurate.

Sector 9 Land Ownership





SCHEDULE OF TRANSFER AREAS		11/10/92788		12/10/92788		13/10/92788		5/736961		TOTAL	
LAND DESCRIPTION		AUSTRALAND		AUSTRALAND		AUSTRALAND		COUNCIL			
TRANSFER	REGISTERED PROPRIETOR	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]	AREA [m ²]
TO 25 METRE CREEK CORRIDOR		2640	1569	1693		2317		8159			
TO 25-50 METRE CREEK BUFFER		2180	1487	413		2175		6255			
TO PROPOSED PUBLIC RESERVE		253	497	0		1048		1798			
TO PROPOSED ROAD		858	677	0		2172		3707			
TO PROPOSED DEVELOPMENT LOTS		3044	3824	0		3877		10745			
TOTAL		8975	7994	2106		11589		30664			

	<p>DUAL 11000</p> <p><small>SPRINKLER HEAD</small></p>	<p>Project:</p> <p>PROPOSED SUBDIVISION & DISTRICT PARK SECTOR 9 WARRENWOOD VALLEY LOT 5 IN D.P. 739981 & LOTS 11, 12 & 13 IN D.P. 1092788</p>										
<p>Client:</p> <p>AUSTRALAND</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Zone</th> <th style="text-align: center;">Date</th> <th style="text-align: center;">Drawn</th> <th style="text-align: center;">Checked</th> <th style="text-align: center;">Reviewed</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1:1500</td> <td style="text-align: center;">14-10-2013</td> <td style="text-align: center;">Dean</td> <td style="text-align: center;">L.O.A.</td> <td style="text-align: center;">PIT/WATER</td> </tr> </tbody> </table>	Zone	Date	Drawn	Checked	Reviewed	1:1500	14-10-2013	Dean	L.O.A.	PIT/WATER	<p>File No:</p> <p>1752</p>
Zone	Date	Drawn	Checked	Reviewed								
1:1500	14-10-2013	Dean	L.O.A.	PIT/WATER								



MEMORANDUM OF UNDERSTANDING

Lot 11 DP 1092788 (FP) / Lot 12 DP 1092788 (FP) / Lot 5 DP 736961 (PC) / Lot 13 1092788 (FP)

1	Parties Identity	Pittwater Council (PC) and Fraser's Property Limited (FP)
2	Form of Contract	Land Swap Agreement relating to land in Sector 9 within the Warriewood Valley Release Area, between Pittwater Council and FP. The lot details are identified in Item 3.
3	Properties	Land owned by FP to be acquired by PC: That part of Lot 11 DP 1092788, part of Lot 12 DP 1092788 and part of Lot 13 DP 1092788, each currently owned by FP and identified as being acquired by PC in Annexure A Land owned by PC to be acquired by FP: That part of Lot 5 DP 736961 currently owned by PC and identified as being acquired by FP in Annexure A.
4	Terms of Memorandum of Understanding (MOU)	The intent of this MOU is to set out and identify the terms of the proposed future deed of agreement between PC and FP. This MOU should not be construed by either party as being legally binding. The parties agree to work together in good faith to address and incorporate the items identified in the Council resolution of 18 May 2015 (Item C12.4) and in this MOU in any future deed of agreement.
5	Valuation and Negotiations	Each party agrees to undertake an independent valuation of the proposed land swap identified in Item 3 above. Each valuation is to be based on an agreed brief that values the land at its highest and best use. Specifically, part of Lot 5 DP 736961 currently owned by PC and identified to be acquired by FP in Annexure A is to be valued on the basis of it having a dwelling yield of 32 dwellings per developable hectare. The valuer must have current NSW registration, be a member of the Australian Property Institute with the appropriate classification and have at least 5 years of experience. Both parties are to pay their own costs in relation to the services of an independent valuer. The parties are to come to a negotiated outcome in relation to any financial adjustment as a result of the overall land swap transaction. Any financial adjustment is to take place on settlement.
6	Creek line Corridor	The transfer of creek-line corridor land owned by FP identified to be acquired by PC in Annexure A is to be completed as a separate financial transaction in accordance with the Warriewood Valley Section 94 Contributions Plan. The value of the creek line corridor land is to be based on the value specified in the Warriewood Valley Section 94 Contribution Plan in force at the date signing of the deed of agreement. The financial transaction is to be a separate item in the deed of agreement but is to be consolidated in the overall land swap transaction. Following any financial adjustment that is to be undertaken as outlined in item 5 above, the parties agree that the compensation set out in this item 6 is to be paid to FP. This compensation can be used to offset any amount FP owes to PC.
7	Undergrounding of Overhead Power	PC to provide Ausgrid's approved design and costings to FP for the undergrounding of the existing High Voltage (HV) overhead cabling. The undergrounding of the overhead power where practical will be in

MEMORANDUM OF UNDERSTANDING

Lot 11 DP 1092788 (FP) / Lot 12 DP 1092788 (FP) / Lot 5 DP 736961 (PC) / Lot 13 1092788 (FP)

		<p>accordance with Ausgrid requirements.</p> <p>The parties agree to share the cost of the undergrounding of the existing overhead HV cabling and if required based on Ausgrid's advice, the cost of any associated infrastructure requirements within the properties proposed to be swapped on a 50/50 basis.</p> <p>If there are any additional electrical undergrounding or upgrading required by Ausgrid outside of the land-swap proposed area, these costs will be the to be borne by PC.</p>
8	Road works	<p>The full road width construction, including stormwater infrastructure, are to be completed by FP at its sole cost. These roads are to be dedicated to PC as part of the future residential subdivision of the land.</p> <p>The parties are to consult in good faith in relation to whether a Planning Agreement under section 93F of the Environmental Planning & Assessment Act will be required to affect this aspect of the transaction.</p> <p>Note:</p> <p>Northern extension of Fern Creek Road: This road is only required to be 16m wide as per a "Local Road" under Warriewood Valley Roads Masterplan. In accordance with the Warriewood Valley Landscape Masterplan a 2.1m shared path is to be provided along the eastern side of this road, in lieu of the 1.5m footpath required by the Warriewood Valley Roads Masterplan. The 2.1m wide shared path is all inclusive of the 16m wide road reserve requirement for Fern Creek Road extension.</p> <p>New east-west road: This road is required to comply with the requirements of a "Local Road" under the Warriewood Valley Roads Masterplan. FP is required to construct a dish drain to the edge of the road treatment, however is not required to construct the parking bays and verge on the reserve side of the road.</p>
9	Pittwater LEP Amendment	<p>PC agrees to prepare and lodge a Planning Proposal to amend Pittwater LEP 2014 as follows:</p> <ul style="list-style-type: none"> (a) The part of Lot 5 DP 736961 owned by PC and identified in Annexure A to be acquired by FP will be allocated a maximum building height of 10.5 metres and a maximum yield of 17 dwellings based on a density of 32 dwellings per developable hectare; (b) The Lot 13 DP 1092788 and the part of Lot 11 DP 1092788 and part of Lot 12 DP 1092788 owned by FP and identified in Annexure A to be acquired by PC will have no dwelling yield allocated to it and will be rezoned to RE1 Public Recreation; and (c) The part of Lot 11 DP 1092788 owned by FP and identified in Annexure A to be retained by FP is to be allocated a yield of 3 dwellings based on a density of 10 dwellings per developable hectare; and (d) The part of Lot 12 DP 1092788 owned by FP and identified in Annexure A to be retained by FP is to be allocated a yield of 13 dwellings based on a density of 32 dwellings per developable

MEMORANDUM OF UNDERSTANDING

Lot 11 DP 1092788 (FP) / Lot 12 DP 1092788 (FP) / Lot 5 DP 736961 (PC) / Lot 13 1092788 (FP)

		<p>hectare.</p> <p>PC will engage an independent consultant to prepare and progress the LEP amendment. All costs and relevant application fees in connection with the LEP amendment are to be borne equally by both parties.</p> <p>In the event that the proposed LEP amendment is not successful, the parties agree that the land swap contemplated by this MOU cannot occur and the proposed land swap arrangements will be at an end. In this event, all costs incurred, except as otherwise specified in Item 16, will be borne equally by both parties.</p>
10	Subdivision	<p>Following gazettal of the LEP amendment by Department of Planning & Environment, PC agrees to prepare and lodge a development application to subdivide the land to reflect the change in ownership proposed by this MOU.</p> <p>PC will engage a consultant to prepare and progress the development application. All costs and relevant application fees in connection with the development application are to be borne equally by both parties.</p>
11	Settlement	<p>Settlement of the land swap is conditional on the following:</p> <ul style="list-style-type: none"> (a) Registration of subdivision certificate in accordance with the development application described in Item 10; and (b) Gazettal of the LEP Amendment identified in Item 9. <p>Settlement will occur within 30 days of the successful completion of both (a) and (b) above.</p>
12	Storm-water infrastructure	<p>An underground stormwater pipe is to be provided from the existing cul-de-sac in Fern Creek Road to Fern Creek. This pipe is to be constructed along the alignment of the existing drainage easement and is to be constructed to a standard specified by PC. The construction of this stormwater pipe is to be undertaken concurrent with the road construction. Each party is responsible for costs associated with undergrounding the section of stormwater infrastructure within their own land.</p> <p>The existing drainage easement is to be extinguished and replaced by a new easement along the same alignment and is to be of a suitable width specified by Council.</p> <p>All stormwater infrastructure required to service the future residential development is to comply with Pittwater 21 DCP, Control C6.21 Provision of Infrastructure.</p>
13	Probity	PC to appoint probity advisor to oversee and report on this transaction.
14	Other Issues: Contamination	<p>Both parties agree that as at the date of agreement of this MOU neither party is aware of any contamination affecting the properties identified in Item 3 which would make that property unsuitable for their intended use.</p> <p>FP and PC must not bring any materials or land fill onto their properties during the land swap transaction period which may cause contamination and will not allow any materials to be located on the properties which may cause contamination or detrimentally affect the land for its intended use.</p>
15	Other Issues: Legal Documentation	<p>PC is to prepare all legal documentation associated with this land swap.</p> <p>All reasonable costs associated with drafting and amending the legal</p>

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Final 28/09/2015

MEMORANDUM OF UNDERSTANDING

Lot 11 DP 1092788 (FP) / Lot 12 DP 1092788 (FP) / Lot 5 DP 736961 (PC) / Lot 13 1092788 (FP)

		documents leading to their signing are to be borne equally by both parties.
16	Other Issues: Other Costs and Invoicing	<p>Both parties to pay their own respective legal costs, except as otherwise outlined in Item 15 above.</p> <p>All other costs, except as otherwise outlined in this MOU, are to be borne equally by both parties. In relation to these costs, PC agrees to pay these costs and invoice FP monthly. FP will be consulted prior to PC accepting any quotes for services for which the costs are to be borne equally.</p>
17	Other Issues: Council endorsement	The parties acknowledge that the future land swap contemplated by this MOU is subject to endorsement by the elected Council and Board approval by FP.

Agreed by Frasers Property Ltd

Date:

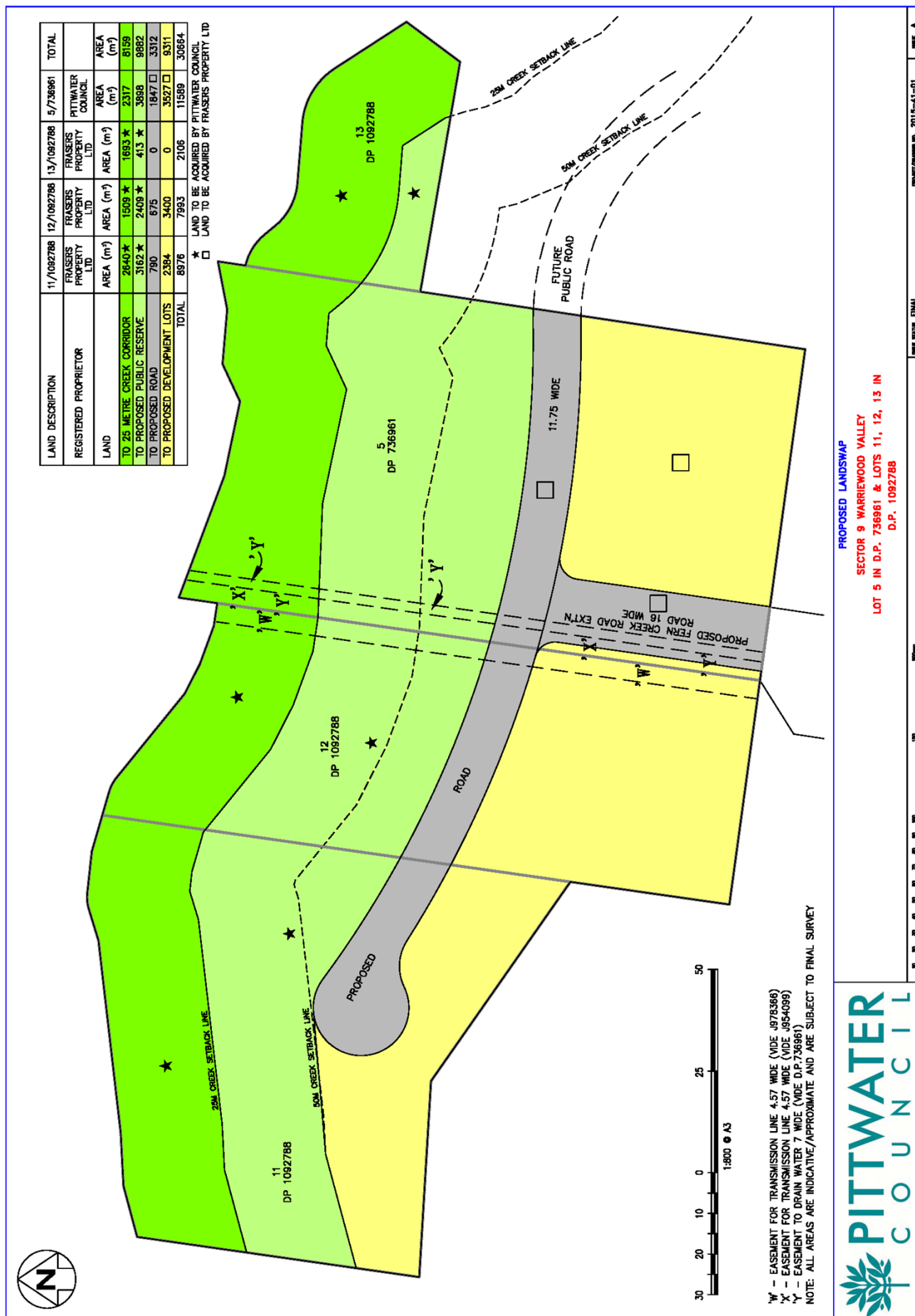
1/10/15

Agreed by Pittwater Council



Date: 29/9/15

ANNEXURE A



LAND SWAP DEED

PITTWATER COUNCIL

("Council")

and

FRASERS PROPERTY LIMITED

("FP")



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LAND SWAP DEED

Deed dated

2015

PARTIES

PITTWATER COUNCIL (ABN 61 340 837 871) of 1 Park Street, Mona Vale NSW 2103

("Council")

FRASERS PROPERTY LIMITED (ACN 008 443 696) of 1 Homebush Bay Drive, Rhodes NSW 2138

("FP")

RECITALS AND BACKGROUND

- A Due to the population increase associated with the Warriewood Valley and in order to deliver greater open space by the provision of a 2 hectare Central Local Park, Council acquired an existing 1.15 hectare parcel of land (9 Fern Creek Road) in order to facilitate the southern half of the Central Local Park.
- B Due to the shape and location of such lot not matching the preferred layout for the open space land, it has been agreed that in order to better reflect and facilitate the final layout plan for such open space, that Council and FP transact a land exchange and for such acquired land by Council to be rezoned RE 1 Public Recreation by the amendment of Council's Local Environmental Plan ("LEP").
- C Council owns the Council Land and FP the FP Land.
- D Subject to the amendment of Council's LEP, Council and FP have agreed to subdivide the Council Land and FP Land respectively owned by them so as to enable:
 - (a) Council to transfer the Council Development Land to FP, being an area measuring approximately 5,374.4 square metres; and
 - (b) FP to transfer to Council the FP Public Reserve Land and the FP Creek Line Corridor Land, being an area measuring approximately 11,825.5 square metres, as shown in the plan attached at Annexure A.
- E To enable the transaction contemplated by these Recitals, Council and FP have agreed to enter into this deed.

OPERATIVE PART

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

The following meanings apply unless the contrary intention appears:

Business Days means a day on which banks are open for general banking business in Sydney, New South Wales (not being a Saturday, Sunday or public holiday in that place).

Completion Date means the date which is on or before the date which is 30 Business Days after Council issues the notice to FP under clause 2.1(b).

Council Development Land means that part of the Development Land comprised in Lot 5 in Deposited Plan 736961.

Conditions Precedent has the meaning given to it in clause 2.1 of this deed.

Council Land means Lot 5 Deposited Plan 736961 (folio identifier 5/736961).

Creek Line Corridor Land means the land shown in dark green and marked "To 25 Metre Creek Corridor" on the plan attached to this deed as Annexure A.

Creek Line Corridor Purchase Price means an amount equal to \$ [REDACTED] per square metre of the FP Creek Line Corridor Land (being approximately \$ [REDACTED]).

Creek Line Corridor Transfer means a transfer of land in a registerable form in relation to the transfer of the FP Creek Line Corridor Land from FP to Council.

Development Land means the land shown in yellow and grey and marked "To Proposed Road" and "To Proposed Development Lots" on the plan attached to this deed as Annexure A.

Development Land Transfer means a registrable transfer of land form in relation to the transfer of the Council Development Land from Council to FP.

Development Land Purchase Price means [REDACTED]

Duty means any stamp, transaction or registration duty or similar charge which is imposed by the New South Wales Office of State Revenue and includes any interest, fine, penalty, charge or other amount which is imposed in relation to that duty or charge.

FP Creek Line Corridor Land means that part of the Creek Line Corridor Land comprised in Lots 11, 12 and 13 in Deposited Plan 109278.

FP Land means Lots 11, 12 and 13 in Deposited Plan 1092788 (folio identifiers 11/1092788, 12/1092788 and 13/1092788).

FP Public Reserve Land means that part of the Public Reserve Land comprised in Lots 11, 12 and 13 in Deposited Plan 109278.

GST has the meaning given to it in the GST Act.

GST Act means the *A New Tax System (Goods and Services Tax) Act 1999* (Cwlth).

GST Law has the meaning given in the GST Act.

LPI means Land & Property Information, New South Wales.

Plan of Subdivision means the proposed plan to subdivide the FP Land and the Council Land prepared by Council and approved by FP in accordance with clause 3.2.

Planning Agreement means a planning agreement between Council and FP on terms acceptable to the parties (acting reasonably) and in accordance with section 93F of the *Environmental Planning & Assessment Act 1979 (NSW)* in relation to the future residential subdivision of the Development Land which includes the provisions of the MOU made and agreed to between the parties dated 1 October 2015.

- (a) construction of stormwater infrastructure in relation to the land;
- (b) extension of Fern Creek Road; and
- (c) construction of New East-West Road.

Planning Proposal means the planning proposal to the Department of Planning and Environment to amend Council's LEP prepared by Council and approved by FP in accordance with clause 3.1.

Public Reserve Land means the land shown in light green and marked "To Proposed Public Reserve" on the plan attached to this deed as Annexure A.

Public Reserve Transfer Form means a registrable transfer of land form in relation to the transfer of the FP Public Reserve Land from FP to Council.

Sunset Date means 31 December 2018.

Undergrounding Works means the works associated with the undergrounding of the overhead power cables and lines along Council and FP's common boundary between Lot 5 in Deposited Plan 736961 and Lot 12 in Deposited Plan 1092788.

1.2 References to certain general terms

Unless the contrary intention appears, in this deed:

- (a) a reference to a document (including this contract) includes any variation or replacement of it;
- (b) a reference to a clause, annexure or schedule is a reference to a clause in or annexure or schedule to this contract;
- (c) a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- (d) the word "law" includes common law, principles of equity, and laws made by parliament (and laws made by parliament include State, Territory and Commonwealth laws and regulations and other instruments under them, and consolidations, amendments, re-enactments or replacements of any of them);
- (e) the singular includes the plural and vice versa;

- (f) the word “person” includes an individual, a firm, a body corporate, a partnership, joint venture, an unincorporated body or association, or any authority;
- (g) a reference to a particular person includes a reference to the person’s executors, administrators, successors, substitutes (including persons taking by novation) and assigns;
- (h) a reference to a body or authority includes a reference, if that body or authority ceases to exist, to the body or authority which has substantially the same functions and objects as the first body or authority;
- (i) an agreement, representation or warranty in favour of two or more persons is for the benefit of them jointly and each of them individually;
- (j) an agreement, representation or warranty by two or more persons binds them jointly and each of them individually;
- (k) a reference to a group of persons or things is a reference to any two or more of them jointly and to each of them individually;
- (l) a reference to Australian dollars, dollars, A\$ or \$ is a reference to the lawful currency of Australia;
- (m) if a period of time dates from a given day or the day of an act or event, it is to be calculated exclusive of that day;
- (n) a day is to be interpreted as the period of time commencing at midnight and ending 24 hours later;
- (o) a reference to accounting standards is a reference to the accounting standards as defined in the Corporations Act, and a reference to an accounting term is a reference to that term as it is used in those accounting standards, or, if not inconsistent with those standards, in accounting principles and practices generally accepted in Australia;
- (p) the words, “including”, “for example” or “such as” when introducing an example, do not limit the meaning of the words to which the example relates to that example or examples of a similar kind;
- (q) if an act under this contract to be done by a party on or by a given day is done after 5.30pm on that day, it is taken to be done on the next day;
- (r) a reference to time is a reference to time in New South Wales; and
- (s) a reference to any thing (including any amount) is a reference to the whole and each part of it.

1.3 Headings

Headings (including those in brackets at the beginning of paragraphs) are for convenience only and do not affect the interpretation of this deed.

2. CONDITIONS PRECEDENT

2.1 Completion conditions

- (a) Both parties agree that their respective obligations to transfer the FP Public Reserve Land, the Council Development Land and FP Creek Line Corridor Land are subject to and conditional upon:
 - (i) the Department of Planning and Environment approving the Planning Proposal;
 - (ii) registration of the Plan of Subdivision at the LPI;
 - (iii) the parties entering into the Planning Agreement; and
 - (iv) registration of the Planning Agreement at the LPI,(together the “**Conditions Precedent**”).
- (b) Council must notify FP in writing within ten 10 Business Days after the Conditions Precedent have been satisfied.

2.2 Date for Completion

The parties must complete the transfers of the FP Public Reserve Land, the Council Development Land and the FP Creek Line Corridor Land on the Completion Date.

2.3 Sunset Date

The parties agree that if the Condition Precedent at 2.1(a)(i) is not satisfied by the Sunset Date, then either party may rescind this deed by serving a notice on the other.

2.4 Release

If this deed is rescinded under clause 2.3 then each party releases other party from any liability or loss arising in connection with the rescission of this deed, except in relation to prior breaches and the sharing of costs contemplated under clauses 4(a), 4(b) and 4(c).

3. COUNCIL'S OBLIGATIONS

3.1 Planning Proposal

The Council must:

- (a) procure the preparation of the Planning Proposal to achieve the following:
 - (i) that the Council Development Land be allocated a maximum building height of 10.5 metres and a maximum yield of 17 dwellings based upon a density of 32 dwellings per developable hectare;
 - (ii) that the Public Reserve Land be rezoned RE 1 Public Recreation;
 - (iii) that the part of the Development Land currently contained within Lot 11 DP 1092788 be allocated a development yield of 3 dwellings based on

a density of 10 dwellings per developable hectare; and

- (iv) that the part of Development Land currently contained within Lot 12 DP 1092788 be allocated a development yield of 13 dwellings based upon a density of 32 dwellings per developable hectare; and
- (b) give FP a copy of the Planning Proposal at least 10 Business Days before Council lodges the Planning Proposal with Council's planning and assessment department; and
- (c) consult with FP in connection with any comments, suggestions or objections which FP makes or seeks to make in connection with the Planning Proposal prior to lodgement with Council's planning and assessment department; and
- (d) not lodge the Planning Proposal with Council's planning and assessment department without FP's written consent (which may be withheld until Council has complied with clauses 3.1(b) and (c), but otherwise must not be unreasonably withheld if the application is consistent with the requirements set out in clauses 3.1(a)(i) – 3.1(a)(iv)); and
- (e) lodge the Planning Proposal with Council's planning and assessment department for approval within 5 Business Days after FP consents to the Planning Proposal; and
- (f) must not seek to amend the Planning Proposal after it has been lodged with Council's planning and assessment department without FP's written consent (which must not be unreasonably withheld if the amendment is consistent with the requirements set out in clauses 3.1(a)(i) – 3.1(a)(iv));

3.2 Plan of Subdivision

The Council must:

- (a) prepare the Plan of Subdivision in a form suitable for registration at the LPI to achieve the following:
 - (i) create separate lots comprising the Council Development Land, the FP Public Reserve Land and the FP Creek Line Corridor Land to allow the transfers contemplated under this deed; and
 - (ii) create the easements for transmission and draining shown on the Plan; and
- (b) prepare a development application in connection with the Plan of Subdivision and provide a copy of the Plan of Subdivision and any supporting documents (including any appropriate instrument under Section 88B of the *Conveyancing Act 1919 (NSW)* to FP and consult with FP in connection with the terms of such application and documentation.
- (c) not lodge the Plan of Subdivision or any supporting documents with the LPI without FP's written consent (which may be withheld until Council has complied with clauses 3.2 (b) but otherwise must not be unreasonably withheld if the application is consistent with the requirements set out in clauses 3.2(a)(i) – 3.2(a)(ii));

- (d) lodge the Plan of Subdivision with the LPI within 5 Business Days after FP consents in writing to the Plan of Subdivision;

4. FP'S OBLIGATIONS

FP must:

- (a) provide its consent to the lodgement in relation to the development application for the Plan of Subdivision once the Council's obligations in 3.2(b) have been satisfied and simultaneously submit the Planning Agreement to Council.
- (b) contribute 50% towards Council's reasonable and properly incurred costs of preparation and submission (including application fees) of the Planning Proposal to amend Council's LEP within 5 Business Days of receipt of a valid tax invoice from Council;
- (c) contribute 50% towards Council's reasonable and properly incurred legal costs associated with the drafting, negotiations and execution of this deed (plus GST and disbursements) and Council's surveyors costs.
- (d) contribute 50% towards Council's reasonable and properly incurred costs of engaging a consultant to prepare and progress a development application with respect to the subdivision of Council's and FP's Land within 5 Business Days of receipt of a valid tax invoice from Council;
- (e) contribute 50% towards the reasonable and properly incurred costs of the approved design and construction (including any associated infrastructure required by Ausgrid) of the Undergrounding Works within 5 Business Days of receipt of a valid tax invoice from Council;
- (f) provided that Council have complied with clause 3.2 of this deed, execute any documents necessary to facilitate registration of the Plan of Subdivision within 5 Business Days of receipt from Council or its solicitors and return such executed documents to Council or its solicitor;
- (g) procure the consent of any mortgagee of the FP Land to the Plan of Subdivision and arrange for the execution by any such mortgagee of any documents necessary to facilitate registration of the Plan of Subdivision;
- (h) produce, or procure production by any mortgagee of the certificates of Title for the FP Land at LPI NSW to facilitate the registration of the Plan of Subdivision;
- (i) remove at FP's cost any caveat or other encumbrance on the land being transferred by it which may prohibit registration of the Plan of Subdivision; and
- (j) do anything reasonably required of it to assist the Council in the obtaining of any necessary approval for registration of the Plan of Subdivision, including compliance with any requisition raised by LPI NSW relating to the Plan of Subdivision.

5. LAND SWAP

5.1 Transfers of the Development and Public Reserve Land

Subject to the satisfaction of the Conditions Precedent, the parties agree that FP will transfer all its estate and interest in the FP Public Reserve Land to Council and pay the Development Land Purchase Price (less any applicable credits that FP receives under clause [5.2](#) below) to Council on the Completion Date in exchange for the Council simultaneously transferring its estate and interest in the Council Development Land to FP in accordance with the procedures set out in this deed.

5.2 Acquisition of the Creek Line Corridor Land

- (a) Subject to satisfaction of the Conditions Precedent, Council agrees to acquire the FP Creek Line Corridor Land from FP on the Completion Date at a value of the Creek Line Corridor Price in accordance with the Warriewood Valley Section 94 Contributions Plan (Plan 15) (Amendment 16) (Revision 1).
- (b) The parties agree that the Creek Line Corridor Price payable by Council for the acquisition of the FP Creek Line Corridor Land must be utilised by FP by way of an offset against the Development Land Purchase Price payable by FP to Council under clause [5.1](#).

5.3 Interdependence

The transactions described in clauses [5.1](#) and [5.2](#) are interdependent. If one party defaults in respect of its obligation in clause [5.1](#) or [5.2](#) the other party need not comply with its obligation unless and until the first party remedies its default. If the transactions described in clause [5.1](#) or [5.2](#) do not proceed, any party which has carried out an action in anticipation of those transactions proceeding may undo such action.

5.4 Instruments of transfer

In respect of:

- (a) the transfer contemplated under clause [5.1](#) Council must deliver the stamped Development Land Transfer duly executed by Council to FP at least 5 Business Days before the Completion Date;
- (b) the transfer contemplated under clause [5.1](#) FP must deliver the stamped Public Reserve Transfer duly executed by FP to Council at least 5 Business Days before the Completion Date; and
- (c) the transfer contemplated under clause [5.2](#) Council must deliver the stamped Creek Line Corridor Transfer duly executed by Council to FP at least 5 Business Days before the Completion Date.

5.5 Acknowledgement

For the purposes of Section 30 of the *Land Acquisition (Just Terms Compensation) Act 1991 (NSW)* it is acknowledged that the agreement contained in this deed is an agreement on all relevant matters relating to the acquisition by the Council of FP Public Reserve Land and the FP Creek Line Corridor Land and that no other compensation whatsoever will be payable by the Council to FP.

5.6 No adjustments

No adjustment will take place between the Council and FP in relation to any council rates or charges, water and sewer rates and charges or any land tax that may be charged upon the FP Public Reserve Land or the FP Creek Line Corridor Land provided that FP must pay all such outgoings in respect of the FP Public Reserve Land or the FP Creek Line Corridor Land owned by it for the rate periods current as at the Completion Date.

6. COMPLETION

6.1 Completion

On the Completion Date:

- (a) Council must:
 - (ii) deliver the stamped and fully executed Development Land Transfer to FP along with a direction addressed to LPI in favour of FP authorising the issuing of the resultant Certificate of Title directly to FP; and
 - (iii) ensure that the certificate of title for the Council Development Land is placed on deposit at LPI; and
- (b) FP must:
 - (i) deliver the stamped and fully executed Public Reserve Land Transfer and the Corridor Creek Transfer to Council along with a direction addressed to LPI in favour of Council authorising the issuing of the resultant Certificate of Title directly to Council;
 - (ii) ensure that the certificates of title for the FP Public Reserve Land and the FP Corridor Creek Transfer are placed on deposit with LPI; and
 - (iii) subject to clause 5.2(b) a Settlement Cheque for an amount equal to the Development Land Purchase Price less the Creek Line Corridor Purchase Price.

7. UNDERGROUNDING OF OVERHEAD POWER

- (a) Council must procure Ausgrid's approved design and construction estimates in relation to the Undergrounding Works and provide them to FP as soon as reasonably practicable.
- (b) The parties agree that the Undergrounding Works will be undertaken by a third party contractor appointed by Council (and approved by FP acting reasonably). The costs of the Undergrounding Works will be paid for directly by Council. FP will contribute to those costs in accordance with clause 4(e).

8. DUTY AND LEGAL COSTS

8.1 Duty

In relation to Duty chargeable, payable or assessed in relation to this agreement or any transaction contemplated by this agreement:

- (a) FP agrees to pay the Duty in relation to the transfer of the Council Development Land and indemnifies and must keep indemnified Council against any liability to Duty which is the responsibility of FP pursuant to this clause 8.1(a); and
- (b) Council agrees to pay the Duty in relation to the transfer of the FP Public Reserve Land and the FP Creek Line Corridor Land and indemnifies and must keep indemnified FP against any liability to Duty which is the responsibility of Council pursuant to this clause 8.1(b).

8.2 Except as otherwise provided for in this agreement, each party will be responsible for its own legal fees in relation to:

- (a) the negotiation and execution of this agreement; and
- (b) otherwise in relation to the transfer of the Council Land and FP Land.

9. GST

9.1 Consideration GST inclusive

Aside from the consideration payable for the transfers contemplated in clause 5.1 all amounts payable or consideration to be provided under this agreement are exclusive of GST.

9.2 Payment of GST

Subject to clause 9.3 if GST is payable on any supply made under this agreement, for which the consideration is not expressly stated to include GST, the recipient agrees to pay to the supplier an additional amount equal to the GST payable at the same time that the consideration for the supply, or the first part of the consideration for the supply (as the case may be), is to be provided.

9.3 Tax invoice

The supplier must issue a tax invoice to the recipient of a taxable supply at the same time that the supplier makes a taxable supply.

9.4 Adjustments

If the amount of GST payable in relation to a taxable supply varies from the amount paid, or set off by, by the recipient in accordance with this clause agreement, then the supplier will provide a corresponding refund or credit to, or will be entitled to receive an additional amount of GST from, the recipient and the supplier will issue an adjustment note.

9.5 Reimbursements

If a party is required under this agreement to indemnify another party, or pay or reimburse costs of another party, that party agrees to pay the relevant amount less any input tax credits to which the other party (or to which the representative member for a GST group of which the other party is a member) is entitled.

9.6 Interpretation

For the purposes of this clause⁹

- (a) a term which has a defined meaning in the GST Act has the same meaning when used in this clause⁹ and
- (b) each periodic or progressive component of a supply to which section 156-5(1) of the GST Act applies will be treated as though it is a separate supply.

10. MISCELLANEOUS PROVISIONS

10.1 Governing Law

This Deed shall be governed by and construed in accordance with the laws of the State of New South Wales.

10.2 Jurisdiction

Any legal action or proceedings with respect to this Deed against any party or any of its property and assets may be brought in the Courts of the State of New South Wales and, by execution and delivery of this Deed that party accepts, for itself and in respect of its property and assets, generally and unconditionally the jurisdiction of the Courts of that State.

10.3 Variations

Any amendments, variation or modification to or of, or consent to departure by any party from the terms of this Deed shall have no force or effect unless effected by a document executed by the parties.

10.4 Third Parties

This Deed shall confer rights and benefits only upon a person expressed to be a party and not upon any other person.

10.5 Assignment

A party shall not transfer or assign its rights or obligations under this Deed without the prior consent in writing of the other party.

10.6 Waivers

The failure to exercise or delay in exercising by any party of any right conferred by this Deed shall not operate as a waiver and the single or partial exercise of any right by that party shall not preclude any other or further exercise of that or any other right by that party.

10.7 Remedies

The rights of a party conferred by this Deed are cumulative and are not exclusive of any rights provided by law.

10.8 Entire agreement

This deed constitutes the entire agreement of the parties about its subject matter and supersedes all previous agreements, understandings and negotiations on that subject matter except for the provisions related to and to be contained within the Planning Agreement.

10.9 Further Assistance

Each party shall execute all documents and perform all acts necessary to give full effect to this deed.

10.10 Severability

Any provision of this Deed which is prohibited or unenforceable in any jurisdiction shall, as to that jurisdiction, be ineffective to the extent of that prohibition or unenforceability, without invalidating the remaining provisions of this deed or affecting the validity or enforceability of that provision in any other jurisdiction.

10.11 Counterparts

This deed may be executed in any number of counterparts, all of which taken together shall be deemed to constitute one and the same document.

11. DISPUTE RESOLUTION

11.1 All disputes or differences arising out of this deed will be resolved in accordance with this clause 10, unless:

- (a) a party is seeking urgent interlocutory relief or a remedy where a delay in commencing proceedings in Court could prejudice the party's entitlement to seek that remedy;
- (b) an incident has arisen that requires urgent resolution which mediation might not resolve; or
- (c) the process in the remainder of this clause 10 has been exhausted.

11.2 Notice of Dispute

Either party may at any time notify the other party in writing that there is a dispute or difference concerning any matter in this deed (**Notice of Dispute**). That Notice of Dispute must:

- (a) identify the subject matter of the dispute;
- (b) identify the relevant provisions of this deed;
- (c) annex copies of any correspondence, or background material and information relevant to that dispute; and

- (d) contain any particulars of quantification of the dispute.

11.3 Parties to Confer

The parties must, within twenty-one (21) days of the service of the Notice of Dispute, meet in an attempt to discuss, and to reach a mutually acceptable decision, on the matter of the dispute.

11.4 Referral to Mediation

If:

- (a) the matter in dispute is not settled within ten (10) business days of the meeting referred to in the preceding paragraph, or such later date as the parties may agree; or
- (b) either party refuses to attend a meeting in accordance with clause 11.3; then
- (c) the difference or dispute must be the subject of a mediation administered by the Australian Commercial Dispute Centre (**ACDC**) conducted and held in accordance with the mediation rules of the ACDC in force at the time of the appointment of a mediator.

11.5 The mediator will be appointed:

- (a) by the parties, from a panel suggested by the ACDC within twenty-eight (28) days of the referral of the difference or dispute for mediation; or
- (b) if a mediator is not appointed by agreement within that period, by the Secretary-General of the ACDC at the request of either party.

- 10.6 The costs of and associated with formal mediation before a mediator under this clause are to be paid by the parties to the mediation in such proportions as they may agree among themselves or, failing agreement, in equal shares.

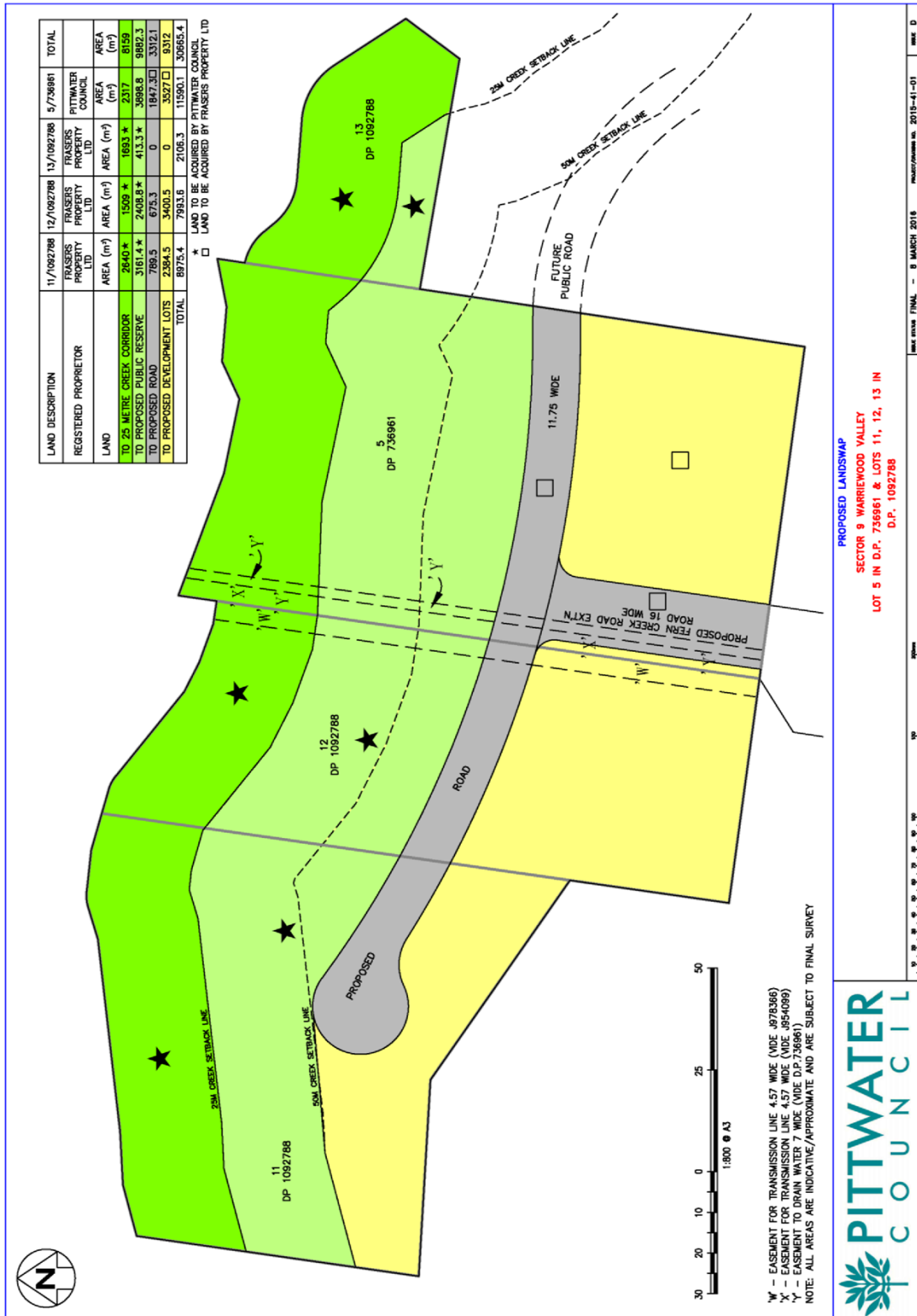
12. NOTICES

Any notice given under this deed:

- (a) must be in writing addressed to the intended recipient at the address shown in the Deed or at the address last notified by the intended recipient to the sender;
- (b) must be signed by a person duly authorised by the sender;
- (c) will be taken to have been given when delivered, received or left at the address shown in this deed.

If delivery or receipt occurs on a date when business is not generally carried on in the place to which the notice is sent, or is sent later than 4.00pm (local time), it will be taken to have been duly given at the commencement of business on the next day when business is generally carried on in that place.

ANNEXURE "A"



EXECUTION

Executed as Deed

Executed by the General Manager on behalf of **PITTWATER COUNCIL (ABN 61 340 837 871)** pursuant to a delegation dated under section 377 of the *Local Government Act 1993* (NSW):

Signature of Witness

General Manager

Name of Witness [BLOCK LETTERS]

Name of General Manager [BLOCK LETTERS]

Address of Witness

EXECUTED by **FRASERS PROPERTY LIMITED (ACN 008 443 696)** in accordance with the requirements of section 127(1) of the *Corporations Act 2001* by:

Signature

Signature

Name of Director

Name of Secretary


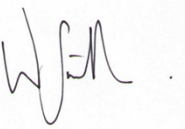


PITIWATER COUNCIL

NEGOTIATIONS FOR A LAND SWAP IN WARRIWOOD VALLEY

PROBITY COMPLIANCE REPORT – 14 MARCH 2016

DOCUMENT INFORMATION

Client	Pittwater Council
Project	Negotiations for a land swap in Warriewood Valley
Report status	Final
Prepared for	Mr Mark Ferguson General Manager Pittwater Council
Prepared by	Vic Baueris 
Approved by	Warwick Smith 

STATEMENT OF RESPONSIBILITY

This probity report has been prepared for the purpose of assisting Pittwater Council in its decision making regarding negotiations for a land swap in Warriewood Valley. Procure has compiled the report on the basis of

- (a) information it has been given and which it has reviewed;
- (b) the processes and procedures it has observed; and
- (c) the issues raised with it.

The conclusion stated in section 2 of this report is based upon the work performed as documented in it. While Procure has identified probity risks and considered the controls, environment and action taken by Pittwater Council to address those risks, probity issues may nevertheless have arisen that have not been identified. While Procure may provide input into processes followed, Pittwater Council retains responsibility for the probity of its personnel and processes. The report cannot be relied upon by any other party or for any other purpose.

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1. INTRODUCTION

Procure Group Pty Ltd (Procure) was engaged by Pittwater Council (Council) on 1 July 2015 to provide probity advisory services for Council in relation to the conduct of negotiations between Council and Frasers Property (formerly Australand) (Frasers) for a land swap in the Warriewood Valley.

The properties the subject of the negotiations are 9 Fern Creek Road (owned by Council) and 11, 12 and 13 Fern Creek Road (owned by Frasers). The intention of the land swap is to facilitate the development of Frasers' land holdings (11 and 12 Fern Creek Road are currently both land locked with no public road access) as well as help Council to achieve the desired shape and layout for the southern portion of the Central Local Park in Warriewood Valley.

This matter was reported to the Council Meeting held on 18 May 2015 where the Council endorsed a concept plan for the land swap and authorised the General Manager to enter into negotiations with Frasers. The Council's resolution is attached to this report (Attachment 1). The resolution includes a requirement *that a probity adviser be appointed to oversee and report on this transaction.* (Point 4).

Council officers have prepared a report for consideration at the Council meeting scheduled for 19 March 2016 where Council will consider endorsement of the outcome achieved as a result of the negotiations. This probity report will be presented to Council at the same time.

2. SCOPE AND METHODOLOGY

2.1 ROLE OF PROBITY ADVISER

In its publication *Probity and Probity Advising* (November 2005) the Independent Commission Against Corruption (ICAC) describe a probity adviser as:

an individual or organisation engaged to observe, review and provide guidance on the probity framework and/or processes of a project. Agencies use internal or external probity advisers to verify that the processes followed are consistent with government regulations, policies, guidelines and best practice principles. A probity adviser provides opinions and guidance on probity risks and issues that may arise during the process and confirms, in writing, whether the concluded process is consistent with the requirements outlined in a probity plan as well as general probity fundamentals. If probity requirements are not being or have not been met, the adviser identifies the

non-conformities and any reasons for these in a written report, and if necessary, suggests solutions and monitors their implementation.

A probity adviser is chiefly concerned with ensuring the integrity of the procedures and processes of the project, rather than project outcomes. That is, the focus is on the means, not the ends of the project. The probity advising role is essentially preventive.

2.2 PROBITY FUNDAMENTALS

In undertaking the probity advisory role, Procure general has regard to the “probity fundamentals” described in the ICAC publication. These probity fundamentals are:

- ☐ Maintaining impartiality
- ☐ Managing conflicts of interest
- ☐ Maintaining accountability and transparency
- ☐ Maintaining confidentiality
- ☐ Obtaining value for money.

2.3 BRIEF FOR THE PROBITY ADVISER

The Brief outlined by Council was for Procure to undertake the following tasks:

- ☐ *Oversee and where required provide probity advice and services in regard to the negotiations.*
- ☐ *Attend meetings with Frasers and Council officers where it may be deemed that Council has a potential conflict of interest. In the event that attendance is not possible, review meeting notes of such meetings that have been held.*
- ☐ *At the conclusion of the negotiations, undertake a probity audit of the negotiations and prepare a report in regard to the management of the probity matters. It is envisaged that this report will be provided to the Council when this matter is reported back to Council at the conclusion of the negotiations.*

This probity report relates to the work of the Council officers in conducting the negotiations and preparing a final recommendation to Council. The probity report does not deal with the actions of the elected Council members, Frasers (other than as recorded in this report) or any other Government agencies.

3. WORK PERFORMED

In undertaking tasks required by the Brief, Procure has completed the following:

- ☐ Noted the decision of Council, at its meeting held on 18 May 2015 which included authorisation for the General Manager of Council to enter into negotiations with Frasers with a view to achieving the land swap under a series of conditions to be captured by a Memorandum of Understanding (MOU). The full text of the Council decision is Attachment 1 to this report.
- ☐ Reviewed the Draft MOU and plan of the proposed land provided by Council officers on 20 August 2015. On the same date, these documents were forwarded to Frasers and to Council's solicitors for their consideration and comment.
- ☐ Noted that the Draft MOU as prepared by Council was consistent with the requirements of the Council decision of 18 May 2015.
- ☐ Attended the meeting held with Frasers on 25 September 2015 to discuss comments and proposed amendments to the MOU as provided by Frasers. Procure explained its role to Frasers and all parties agreed that Procure will receive copies of all communications whether by email or letter.
- ☐ Noted that subsequent to this meeting, agreement was reached in relation to the wording of the MOU. The MOU was signed by the General Manager of Council on 29 September and by the authorised representative of Frasers on 1 October 2015. The MOU addressed the following matters, consistent with the Council resolution of 18 May 2015:
 - ☐ Area of land to be swapped
 - ☐ Creek line corridor dedication and offset
 - ☐ Undergrounding of high voltage power lines
 - ☐ Road and stormwater construction
 - ☐ Necessary amendments to Pittwater LEP 2014
 - ☐ Development application to subdivide and consolidate existing lots
 - ☐ Costs
 - ☐ Engagement of the Probity Advisor,
- ☐ Noted the agreement that each party would obtain a separate valuation of the land to be swapped. Further noted that Council advised that its policy required that the valuation received by Council not be made available to Frasers.
- ☐ Noted that on 28 September 2015, Council provided Frasers with a package of information to be conveyed to Frasers' land valuers in order to ensure that both Parties received valuations based on identical information.
- ☐ Noted that by email on 19 November 2015, the General Manager of Council determined the range of price negotiation to be conducted by Council officers. The range was based on the advice provided by Council's independent valuers.

- Attended the meeting held with Frasers on 20 November 2015 where Council officers presented the Council's position in regard to the financial transfer to Council required from Frasers for the land swap to proceed. Noted that justification provided by Council officers was the value of the increased yield available to Frasers resulting from the proposed land swap.
- Further noted that there was a substantial difference between Frasers and Council in relation to the proposed payment to Council and Frasers agreed to give the issues related to the basis of valuation further consideration.
- Noted that on 24 November 2015, Council provided further information related to dwelling yields and planning controls to Frasers for their consideration.
- Noted that on 16 December 2015, Frasers advised Council by letter of an increased financial offer.
- Noted that further correspondence ensued between Council and Frasers in January 2016 and subsequently by letters dated 2 February 2016 from Council and 16 February 2015 from Frasers and that agreement was reached on the level of payment to be made by Frasers. As stated in the letter from Council, the agreement was subject to endorsement by the elected Council and by the Board of Frasers.
- Contacted representatives of Frasers by email on 9 March 2016 to confirm that they did not have any probity concerns with the manner in which Council conducted the negotiations. No probity concerns have been raised.
- Noted that this agreement was to be finalised by the enactment of a Deed of Agreement which had been drafted by Council's legal advisers and provided to Frasers for comment. Noted that on 8 March 2016, Frasers advised that they had no further comments and were in agreement with the Deed of Agreement as then worded.
- Attended Council premises on 9 March 2016 to review relevant documentation held by Council. Confirmed with the Council officers responsible for the negotiations that no conflict of interest issues or other probity concerns had arisen during the negotiations.
- Reviewed the draft report to Council on the outcome of the land swap negotiations and confirmed that it was an accurate representation of the process followed and outcomes achieved.

4. PROBITY ISSUES

Procure was engaged by Council due to Council's wish to ensure that negotiations regarding Council-owned land are conducted with due transparency, impartiality and achieve value for money. The elected Council will be accountable for the final decision.

It is important in this context to recognise the issues that face councils in dealing with council-owned land. The ICAC has recognised that in this circumstance councils face a conflict of roles which is not the same as a conflict of interest. The risk is that the matters in which a council has a direct role may not be dealt with impartially. An important means to mitigate this risk is to ensure that decision-making related to council-owned land is consultative and transparent to the community.

In this context, Procure notes:

- ☐ That the proposed development of this and surrounding land was first considered by Council in May 2014 and over the following 12 months substantial consultation with affected landowners was undertaken.
- ☐ That a public meeting will be held on 17 March 2016 to discuss the outcome of the negotiations prior to the report to an open Council meeting on 19 March 2016.

5. CONCLUSION

Based upon our work performed and detailed in this report, no issues of a probity nature have come to our attention that would lead us to conclude that the process followed in the conduct of negotiations by Council officers with Frasers regarding the land swap in the Warriewood Valley has not been conducted in an accountable and transparent manner and with due regard to addressing the probity fundamentals.

Attachment 1

C12.4 Warriewood Valley Open Space- Southern Component of Central Local Park (Sector 9)

Meeting: Sustainable Towns & Villages Committee Date: 18 May 2015

COMMITTEE RECOMMENDATION

1. That the Concept Layout Plan for the Central Local Park, in particular the southern half located within Sector 9 be endorsed as an indicative plan only and the General Manager be authorised to enter into negotiations with Australand, the owner of the adjoining lands to progress this outcome.
2. That the transaction be captured by a Memorandum of Understanding between the parties and be based on the following:
 - ☐ the creekline corridor acquisition is completed as a separate financial transaction as per the S94 Plan prior to the landswap to establish net areas of land involved.
 - ☐ an area for area swap of land so that the net open space compared to the current rectangle is not reduced.
 - ☐ the valuation of the lands to be swapped being based on highest and best use.
 - ☐ a financial adjustment to be made noting the difference in land valuations.
 - ☐ the undergrounding of the overhead power where practical as per Ausgrid requirements.
 - ☐ that undergrounded stormwater management along the drainage easement be included.
 - ☐ the direct provision of full width road infrastructure (excluding parking bays on the reserve side) by Australand.
 - ☐ the land being swapped to be rezoned to be consistent with the intended future land use. In this regard: I. the part of the land owned by Council currently zoned residential with no dwelling yield would be rezoned to residential with a potential yield of 32 dwellings per developable hectare; II. the part of the land owned by Australand currently zoned for residential would be rezoned to recreational and the adjoining land not being swapped provided a prorata development potential where this is already a lower fixed yield.
 - ☐ that the landswap area be calculated from the edge of the riparian zone (at 25m).
3. That an updated valuation be obtained from an independent Valuer to ascertain the likely land values of the various parcels involved in the overall transaction.
4. That a probity advisor be appointed to oversee and report on this transaction.
5. That a report be brought back to Council detailing the negotiation, the Memorandum of Understanding and the financial aspects of the transaction.

ATTACHMENT 10 – Survey Plan for Proposed Land Swap

