

ENVIRONMENTAL ASSESSMENT

PROPOSED RESIDENTIAL SUBDIVISION OF LAND AT MORISSET PARK

LOT 9 DP 244002 AND LOT 358 DP 755242, BEING LAND AT THE
CORNER OF MORISSET PARK ROAD AND CHIFLEY ROAD,
MORISSET PARK.

Prepared on behalf of:
POSTFOX PTY LTD

Prepared for submission to:
DEPARTMENT OF PLANNING

Prepared by:



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SUBMISSION OF ENVIRONMENTAL ASSESSMENT

Prepared under Part 3A of the Environmental Planning and Assessment Act, 1979

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PROJECT PLAN APPLICATION

Applicant Name: Postfox Pty Ltd
Applicant Address: P O Box 151
Killara NSW 2071
Land to be Developed: Lot 9 DP 244002 and Lot 358 DP 755242, being the land situated at the corner of Morisset Park Road and Chifley Road, Morisset Park
Proposed Development: Subdivision of land for residential purposes into 73 lots (72 residential lots and 1 detention lot) and associated infrastructure and road works.

ENVIRONMENTAL ASSESSMENT

An EA is attached which addressed all matters listed under Part 3A of the Environmental Planning and Assessment Act 1979

CERTIFICATE

I certify that I have prepared the contents of this EA and to the best of my knowledge:

- It contains all available information that is relevant to the environmental assessment of the development to which the EA relates; and
- It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Signature:

A handwritten signature in black ink, appearing to read 'D Humphris', is written over a horizontal line.

Name: David Humphris
Date: 25 November 2008



CONTENTS

1. INTRODUCTION	1
1.1 OVERVIEW	1
1.2 HISTORY OF REZONING AND LOCAL ENVIRONMENTAL STUDY	1
1.3 CONSENT AUTHORITY	2
1.4 OTHER APPROVALS REQUIRED	2
1.5 SCOPE OF ENVIRONMENTAL ASSESSMENT	3
1.6 PROJECT JUSTIFICATION	5
1.7 CHECKLIST OF DIRECTOR GENERAL'S REQUIREMENTS	6
1.8 CONSULTATION	7
2. THE SITE	9
2.1 LOCATION	9
2.2 TITLE DETAILS AND OWNERSHIP	9
2.3 AREAS	9
2.4 EASEMENTS	9
2.5 TOPOGRAPHY AND SURFACE HYDROLOGY	9
2.6 FLOODING	10
2.7 GROUND WATER HYDROLOGY	10
2.8 MINE SUBSIDENCE	10
2.9 GEOTECHNICAL CHARACTERISTICS	10
2.9.1 OVERVIEW	10
2.9.2 SOILS	11
2.9.3 SLOPE STABILITY	11
2.9.4 ACID SULPHATE SOILS	11
2.10 CONTAMINATION	11
2.11 EXISTING DEVELOPMENT	12
2.12 SCENIC VALUES	14
2.12.1 OVERVIEW	14
2.12.2 LANDSCAPE SETTING UNIT QUALITIES	14
2.12.3 SCENIC QUALITY OBJECTIVES OF THE BARDENS BAY LANDSCAPE SETTING UNIT	14
2.12.4 SCENIC MANAGEMENT ZONE OF THE SITE	15
2.12.5 SIGNIFICANT FEATURES, VIEWING POINTS AND RIDGELINES	16
2.13 ACCESS AND TRAFFIC	17
2.14 FLORA AND FAUNA	17
2.14.1 OVERVIEW	17
2.14.2 FLORA	17
2.14.3 HABITATS	18
2.14.4 FAUNA	19
2.14.5 KOALAS	19
2.14.6 ECOLOGICAL CORRIDORS	20
2.15 HERITAGE AND ARCHAEOLOGY	20
2.15.1 HERITAGE COUNCIL ACT 2003 AND ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999	20
2.15.2 HERITAGE ACT, 1977	21
2.15.3 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979	21
2.15.4 ABORIGINAL HERITAGE	22
2.16 BUSHFIRE	23
2.17 SERVICES	23
3. THE SURROUNDING ENVIRONMENT	24
3.1 PHYSICAL ENVIRONMENT	24
3.1.1 OVERVIEW	24
3.1.2 LAND TO THE NORTH	24
3.1.3 LAND TO THE EAST	24



3.1.4	LAND TO THE SOUTH.....	24
3.1.5	LAND TO THE WEST.....	25
3.2	SOCIAL ENVIRONMENT.....	25
4.	THE PROPOSED DEVELOPMENT.....	26
4.1	OVERVIEW.....	26
4.2	STRUCTURE PLAN AND DESIGN CONCEPT.....	26
4.3	PROPOSED SUBDIVISION.....	27
4.4	DESIRE FUTURE CHARACTER AND BUILDING CONTROLS.....	28
4.5	UTILITY SERVICES AND INFRASTRUCTURE.....	33
4.5.1	OVERVIEW.....	33
4.5.2	ROADS.....	33
4.5.3	SEWERAGE.....	33
4.5.4	WATER.....	33
4.5.5	ELECTRICITY.....	34
4.5.6	COMMUNICATIONS.....	34
4.5.7	NATURAL GAS.....	34
4.6	DEVELOPER CONTRIBUTIONS AND FUNDING.....	34
4.7	FUTURE MANAGEMENT, EASEMENTS, RESTRICTIONS AND POSITIVE COVENANTS.....	34
4.8	ACCESS, TRAFFIC AND PARKING.....	35
4.9	STORMWATER MANAGEMENT.....	36
4.10	ROAD DESIGN.....	37
4.11	EROSION AND SEDIMENT CONTROL.....	37
4.12	FLORA AND FAUNA PROTECTION.....	37
4.13	BUSHFIRE MANAGEMENT.....	38
4.14	LANDSCAPING.....	39
4.15	PROTECTION OF LAKE MACQUARIE STATE CONSERVATION AREA.....	39
5.	STATUTORY PLANNING PROVISIONS, POLICIES AND PLANS.....	41
5.1	OVERVIEW.....	41
5.2	COMMONWEALTH ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT.....	41
5.3	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979.....	41
5.4	RELEVANT STATE ENVIRONMENTAL PLANNING POLICIES.....	43
5.4.1	STATE ENVIRONMENTAL PLANNING POLICY (MAJOR PROJECTS) 2005.....	43
5.4.2	STATE ENVIRONMENTAL PLANNING POLICY No. 19 – BUSHLAND IN URBAN AREAS.....	43
5.4.3	STATE ENVIRONMENTAL PLANNING POLICY No. 44 – KOALA HABITAT PROTECTION.....	44
5.4.4	STATE ENVIRONMENTAL PLANNING POLICY No. 55 – REMEDIATION OF LAND.....	44
5.4.5	STATE ENVIRONMENTAL PLANNING POLICY No. 71 – COASTAL PROTECTION.....	45
5.4.5.1	OVERVIEW.....	45
5.4.5.2	CLAUSE 8 - MATTERS FOR CONSIDERATION.....	45
5.4.5.3	CLAUSE 14 – PUBLIC ACCESS.....	46
5.4.5.4	CLAUSE 16 – STORMWATER.....	47
5.4.6	DRAFT STATE ENVIRONMENTAL PLANNING POLICY No. 66 – INTEGRATION OF LAND USE AND TRANSPORT.....	47
5.4.6.1	OVERVIEW.....	47
5.4.7	NSW COASTAL POLICY 1997.....	48
5.4.8	COASTAL DESIGN GUIDELINES FOR NSW.....	49
5.5	RELEVANT REGIONAL ENVIRONMENTAL PLANS AND STRATEGIES.....	50
5.5.1	OVERVIEW.....	50
5.5.2	HUNTER REGIONAL ENVIRONMENTAL PLAN 1989.....	50
5.5.2.1	OVERVIEW.....	50
5.5.2.2	PART 1 - AIMS OF THE HUNTER REGIONAL ENVIRONMENTAL PLAN 1989.....	50
5.5.2.3	PART 2 – SOCIAL DEVELOPMENT.....	51
5.5.2.4	PART 4 – LAND USE AND SETTLEMENT.....	52
5.5.2.5	PART 7 – ENVIRONMENTAL PROTECTION.....	53
5.5.2.6	PART 8 – CONSERVATION AND RECREATION.....	54
5.5.3	HUNTER COASTAL URBAN SETTLEMENT STRATEGY.....	55
5.5.4	LOWER HUNTER HOUSING MARKET STUDY.....	56
5.5.5	LOWER HUNTER REGIONAL STRATEGY.....	56
5.6	LOCAL PLANS AND POLICIES.....	57
5.6.1	OVERVIEW.....	57
5.6.2	LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004.....	57



5.6.2.1	ZONING AND PERMISSIBILITY.....	57
5.6.2.2	CLAUSE 15 - OBJECTIVES OF THE 2(1) RESIDENTIAL ZONE.....	57
5.6.2.3	CLAUSE 16 – LIFESTYLE 2020 STRATEGY.....	57
5.6.2.4	CLAUSE 17 – PROVISION OF ESSENTIAL INFRASTRUCTURE.....	57
5.6.2.5	CLAUSE 24 - SUBDIVISION.....	58
5.6.2.6	CLAUSE 25 - DEMOLITION.....	59
5.6.2.7	CLAUSE 30 - CONTROL OF POLLUTION.....	59
5.6.2.8	CLAUSE 31 - EROSION AND SEDIMENT CONTROL.....	59
5.6.2.9	CLAUSE 33 - BUSH FIRE PRONE LAND.....	59
5.6.2.10	CLAUSE 34 - TREES AND NATIVE VEGETATION.....	59
5.6.2.11	CLAUSE 50 - DEVELOPMENT AFFECTING PLACES OR SITES OF KNOWN OR POTENTIAL ABORIGINAL HERITAGE SIGNIFICANCE.....	60
5.6.2.12	CLAUSE 60 - DEVELOPMENT ON LAND ADJOINING ZONES 5, 7(1) AND 8.....	60
5.6.3	LAKE MACQUARIE DEVELOPMENT CONTROL PLAN No. 1 – PRINCIPLES OF DEVELOPMENT.....	61
5.6.4	LAKE MACQUARIE CITY COUNCIL SCENIC QUALITY GUIDELINES 2004.....	78
5.6.5	LIFESTYLE 2020 STRATEGY.....	78
5.6.5.1	OVERVIEW.....	78
5.6.5.2	AIMS.....	78
5.6.5.3	STRATEGIC DIRECTIONS.....	80
5.6.5.4	URBAN STRUCTURE.....	82
5.6.5.5	GREEN SYSTEM.....	82
6.	ANALYSIS OF KEY ISSUES.....	83
6.1	SITE SUITABILITY.....	83
6.2	SPATIAL BENEFITS.....	83
6.3	SOCIAL AND ECONOMIC IMPACTS.....	83
6.4	TRAFFIC IMPACTS.....	85
6.5	FLORA AND FAUNA IMPACTS.....	85
6.6	BUSHFIRE MANAGEMENT.....	85
6.7	HERITAGE IMPACTS.....	85
6.8	STORMWATER MANAGEMENT.....	85
6.9	NOISE IMPACTS.....	85
6.10	CONSTRUCTION MANAGEMENT.....	86
6.11	UTILITY SERVICES.....	86
6.12	IMPACTS ON THE NATURAL ENVIRONMENT.....	86
6.13	IMPACTS ON THE BUILT ENVIRONMENT.....	87
6.14	ECOLOGICALLY SUSTAINABLE DEVELOPMENT.....	87
7.	DRAFT STATEMENT OF COMMITMENTS.....	89
8.	CONCLUSION.....	92



APPENDICES

Appendix 1:	Director General's Environmental Assessment Requirements
Appendix 2:	Location Plan
Appendix 3:	Aerial Photograph
Appendix 4:	Zoning – Lake Macquarie Local Environmental Plan 2004
Appendix 5:	Council's Coastal Zone Map
Appendix 6:	Council's Bushfire Prone Land Map
Appendix 7:	Deposited Plans
Appendix 8:	Survey Plan de Witt Consulting Pty Ltd
Appendix 9:	Site Analysis Plan prepared by Terras Landscape Architects
Appendix 10:	Structure Plan prepared by de Witt Consulting
Appendix 11:	Proposed Plan of Subdivision prepared by de Witt Consulting
Appendix 12:	Plan of Trees to be Retained prepared by de Witt Consulting
Appendix 13:	Plan of Trees to be Removed prepared by de Witt Consulting
Appendix 14:	Landscape Design Report and Concept Plan prepared by Terras Landscape Architects
Appendix 15:	Visual Impact Statement prepared by Terras Landscape Architects
Appendix 16:	Ecological Assessment Report prepared by Harper Somers O'Sullivan Pty Ltd
Appendix 17:	Ecological Report Pertaining to Wildlife Corridor Issues prepared by Harper Somers O'Sullivan Pty Ltd (August 2004)
Appendix 18:	Bushfire Threat Assessment prepared by Harper Somers O'Sullivan Pty Ltd
Appendix 19:	Aboriginal Heritage Survey prepared by Koombahtoo Local Aboriginal Land Council
Appendix 20:	Archaeological Assessment prepared by Insite Heritage
Appendix 21:	Archaeological Excavation Report (Section 87 Test Probe Permit) prepared by Insite Heritage
Appendix 22:	Aboriginal Community Consultation Report prepared by Insite Heritage
Appendix 23:	Stability Assessment and Preliminary Contamination Assessment prepared by Coffey Geosciences Pty Ltd
Appendix 24:	Traffic Impact Study prepared by Northern Transport Planning and Engineering
Appendix 25:	Social Impact Assessment prepared by Key Insights Pty Ltd
Appendix 26:	Flooding, Surface and Groundwater Hydrology Assessment prepared by Northrop Engineers
Appendix 27:	Concept Stormwater Management Plan and Road Design prepared by Northrop Engineers
Appendix 28:	Construction Management Plan prepared by Hale Development Services
Appendix 29:	Quantity Surveyors Certificate
Appendix 30:	Letters from Utility Companies (Energy Australia, Agility, Hunter Water)
Appendix 31:	Letter from Mine Subsidence Board dated 30 April 2007
Appendix 32:	Section 65 Certificate and Section 64 Report (2005) from Council to Department of Planning regarding LEP Amendment No. 10 (includes Exhibition Material)
Appendix 33:	Gazettal Notice for Lake Macquarie LEP Amendment No. 10
Appendix 34:	Notes from Pre-DA Meeting with Council on 4 December 2007



EXECUTIVE SUMMARY

Purpose and Proposal

This Environmental Assessment ("EA") accompanies a development application which seeks approval under Part 3A of the Environmental Planning and Assessment Act 1979 for the 62 lot residential subdivision of land at Morisset Park. The zoning of the site has recently changed from 10 Investigation to 2(1) Residential under the Lake Macquarie Local Environmental Plan 2004.

The Site and Locality

The site comprises Lot 9 DP 244002 and Lot 358 DP 755242, being the land situated at the corner of Morisset Park Road and Chifley Road, Morisset Park. The site has an area of around 6.4 hectares. The site presently consists of two lots, each with a dwelling and associated sheds. The site is dominated by cleared grassed areas and smaller areas of modified Eucalypt Open Forest and exotic plantations.

The site is located at Morisset Park approximately 3.5 kilometres to the east of the intersection of Macquarie Street/Main Northern Railway and Fishery Point Road. The site is located immediately to the south west of the existing urban area of Morisset Park and Windermere Park. It is bounded by Morisset Park Road to the south, Chifley Road to the east and the dwellings fronting Frederick Street to the north.

The site is partially developed for residential purposes and if fully developed for residential purposes will comprise a natural expansion of Morisset Park. It is adjacent to residential development including the recently completed (2001/2002) 12 lot residential subdivision in Chifley Road ("Lakeview Estate"). The site is strategically located with respect to support services, being around 1.2 kilometres from the Bonnells Bay Shopping Centre. The site is also located at the intersection of the two main roads that run through Morisset Park.

The site benefits from good links to the north and south being close to the F3 Newcastle to Sydney freeway and the Main Northern Railway.

The Proposed Development

The proposal comprises the subdivision of the site into 62 residential lots, with 1 lot set aside as a drainage reserve to accommodate a proposed detention basin. The proposed subdivision will require the construction of roads and associated drainage infrastructure, along with the construction of services including sewer, water, electricity, gas and communications to adequately service the proposed lots. Extensive landscaping will be provided as street trees along the proposed internal roads and along the existing road network fronting the site. It is also proposed to demolish the existing dwellings and associated sheds and outbuildings on site.

The proposed subdivision will require the creation of various easements, restrictions and positive covenants to facilitate the drainage of water and to provide for the required bushfire measures. The easements and positive covenants will be created by a Section 88B Instrument under the Conveyancing Act 1919 along with the Plan of Subdivision to be endorsed by Council and lodged and registered at the Land and Property Information, Sydney.

Environmental Assessment

The proposed development has been informed by the environmental constraints and opportunities investigated. Mitigation and management measures have been recommended in the supporting specialist reports to create a sustainable development that is integrated into the natural setting. The analysis of the key issues has included the following:



Flora and Fauna

The proposed development will take place on land that is disturbed, degraded and predominantly developed. As detailed in the Ecological Assessment Report no areas of remnant vegetation or threatened fauna and flora will be affected by the proposed development and neither will any wetlands or waterway. Hollow bearing trees will be retained wherever practicable as part the residential subdivision. The recommendations of the Ecological Assessment Report can be summarised as follows and will be adhered to:

- Mature trees, particularly those containing hollows to be retained wherever they can be safely retained with regard to public safety.
- Where hollow-bearing trees are required to be removed within the site, a qualified ecologist is to identify and mark these trees prior to any vegetation clearing. An ecologist is to guide hollow-bearing tree removal to ensure any fauna are recovered.
- Landscaping should aim to utilise locally occurring flowering/fruited native shrubs that would provide potential foraging resources for threatened species and other native species.

The Proposed Plan of Subdivision has been designed to ensure only around 7 hollow bearing trees will be removed. This has been achieved by creating a lot of around 9,610 square metres (Lot 3) along the western boundary of the site to ensure maximum retention of the trees on the site. In addition, nesting boxes will be placed within the larger trees within proposed Lot 3 so to be close to the existing adjoining bushland.

Bushfire

The site contains bushfire prone land. A Bushfire Threat Assessment has been prepared by Harper Somers O'Sullivan in relation to the proposed subdivision and makes the following recommendations:

- The provision of an Asset Protection Zone of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) between dwellings and the western boundary.
- The provision of an Asset Protection Zone of 25 metres (Inner Protection Zone of 15 metres and Outer Protection Zone of 10 metres) between the proposed dwelling on Lot 3 and the vegetation to the north.
- The provision of an Asset Protection Zone of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) between the retained vegetation on Lot 3 and the residential lots to the east (the majority of which comprises a proposed internal road of 14.5 metres).
- The provision of entry and exit points onto both Morisset Park Road and Chifley Road.
- The future connection of the subdivision to the existing reticulated water mains system.
- The establishment of Section 88N Restrictions as to User to ensure the design of future dwellings has regard to the specific considerations of the BCA with regard to the construction of buildings in bushfire-prone areas.
- The incorporation of an internal road network with sufficient access to all parts of the site for bushfire fighting purposes.

The subdivision design has incorporated the recommendations in regard to the provision of two entry / exit points from the subdivision, with one each on Morisset Park and Chifley Roads. The subdivision design incorporates a perimeter road with sufficient access to all the lots on the site.

Water Cycle Management

A Concept Stormwater Management Plan for the proposed subdivision has been prepared by Northrop Engineers. The study involved hydraulic modelling of the catchment areas to determine additional runoff generated by the proposed urbanisation of the site. The proposed development will require a regional detention basin with a surface area of around 1,400 square metres. Stormwater will be diverted from lots and road



surfaces through a pit and pipe system to a Gross Pollutant Device, prior to being discharged to the above ground detention reserve. The detention basin will then direct controlled flows through the existing services easement between Lots 1 and 2 DP 244002 to the existing drainage swale along the western side of Chifley Road.

Social Impacts

The Social Impact Assessment prepared by Key Insights Pty Ltd provides a detailed review of the social and economic impacts of the proposed development. This report concludes as follows:

Positive impacts associated with the rezoning and subsequent residential development include:

- *Jobs during the construction phase conservatively estimated at 1 job per \$1M in construction costs. These jobs would include a range of trades including tillers, roofer, concreters, plumbers, electricians etc.*
- *Multiplier effect throughout the region as a result of construction employment.*
- *Jobs in the supply industry as a result of construction activity.*
- *Increased trade and economic activity in the surrounding area including more customers of local centre Bonnells Bay and urban centre Morisset Township.*
- *Contribution to the social mix of Morisset Park, helping to maintain a vibrant sustainable community.*
- *Potential for affordable housing and diverse housing.*
- *Potential to target key social groups, such as young families, first home-buyers, sustainable life- stylers, and young adults.*
- *Increase in population contributing to critical mass necessary to attract increased Council attention and services, such as sports oval and other recreational facilities.*
- *Increase in eligible volunteers for community service.*

The potential negative impacts of the proposed development include:

- *Contribution to the loss of isolation and semi-rural atmosphere as a key characteristic of the area.*
- *Increased noise in the local area, particularly during construction.*
- *Increased traffic on the local road system.*
- *Contribution to longer-term stress on aged care facilities, health services and other government funded services, if no extra services are provided.*
- *Potential isolation from existing community if block size, aesthetics and design differs significantly from existing style and atmosphere.*

Aboriginal Heritage

Various Aboriginal Archaeological Surveys have taken place on site, including an archaeological excavation and a site survey by the Koombahtoo Local Aboriginal Land Council. The proposed subdivision will have no adverse impacts on either European or Aboriginal heritage and has the support of the Local Aboriginal Land Council.



Traffic

The Traffic Impact Study prepared by Northern Transport Planning and Engineering concludes that the environmental capacity of the surrounding road network is adequate to accommodate predicted traffic flows. The intersection of Baldwin Boulevard and Fishery Point Road may require upgrading in year 2018 to reduce delays for vehicles turning right out of Baldwin Boulevard. However, this is a situation that would result even without the proposed development due to annual increases in traffic growth in the Morisset Park area. The intersection of Morisset Park Road and Fishery Point Road will also require upgrading with the installation of traffic control signals by 2018 and an appropriate funding mechanism will be included in a new Section 94 Contributions Plan presently being prepared by Council.

Infrastructure

The relevant authorities responsible for the utility services have advised that all services required by the development can be either extended or upgraded to service the proposed subdivision needs. Generally water, electricity and communication services will be provided along the road frontage of a lot with a sewer connection available at the lowest point within a lot.

The developer will be responsible for all funding associated with the provision of utility services.

Section 94 Contributions will be made to Council pursuant to the provisions of the Lake Macquarie Section 94 Contributions Plan No. 1 – City Wide to facilitate the long term management and maintenance funding of both Council's utility services as well as the roads and drainage reserve that will be dedicated to Council as part of the subdivision. At the current time, this equates to a Section 94 Contribution of around \$17,000 per lot.

In addition a Deed of Agreement has been entered into between the landowner and the Roads and Traffic Authority for the funding of an upgrade to the intersection of Fishery Point Road and Macquarie Street (State Classified Road). This agreement requires the landowner to pay an amount of \$3,000 per residential lot to the RTA. Full payment to the RTA is required by December 2011, or prior to full construction completion, whichever is the sooner.

Conclusion

The proposal meets the objectives of the planning framework for the region and is consistent with the recent rezoning of the site to 2(1) Residential pursuant to the provisions of Lake Macquarie Local Environmental Plan 2004. The proposed subdivision creates the opportunity for future low density residential development, consistent with the objectives of the zone, the planning controls for the site and the context of the area. The proposal has been designed in response to a comprehensive investigation of the key environmental opportunities and constraints of the site.



1. INTRODUCTION

1.1 Overview

Postfox Pty Ltd seeks approval under Part 3A of the Environmental Planning and Assessment Act 1979 (“EP&A Act”) for the subdivision of Lot 9 DP 244002 and Lot 358 DP 755242, being the land situated at the corner of Morisset Park Road and Chifley Road, Morisset Park (“the site”). The proposal is to subdivide the site into 62 residential lots and one lot to be dedicated as a public drainage reserve. The zoning of the site has recently changed from 10 Investigation to 2(1) Residential under the Lake Macquarie Local Environmental Plan 2004 (“LEP 2004”).

The proposed subdivision will require the construction of roads, drainage and essential service infrastructure to meet Council’s standards and those of the service authorities. In addition the subdivision will require the creation of easements and positive covenants to facilitate the proposed subdivision.

The site presently consists of two lots, each with a dwelling and associated sheds. The site is dominated by cleared grassed areas and smaller areas of modified Eucalypt Open Forest and exotic plantations. The location of the site is shown in Appendices 2 and 4.

In correspondence dated 18 March 2008, the NSW Department of Planning (“DOP”) confirmed that it had determined the proposed subdivision as a “major project” to which Part 3A of the EP&A Act applies. The proposal is a major project pursuant to the provisions of State Environmental Planning Policy (Major Projects) as detailed in Section 5.4.1.

This Environmental Assessment (“EA”) has been prepared by de Witt Consulting in accordance with Part 3A of the EP&A Act and the Director General Requirements dated 16 May 2008 (see Appendix 1). It describes the proposal and the environmental implications associated with the key issues of the proposed development of the site. The EA provides a comprehensive assessment of the environmental capacity and suitability of the site to accommodate a low density form of residential development. The site is partially developed for residential purposes and if fully developed for residential purposes will comprise a natural expansion of Morisset Park. It is adjacent to residential development including the recently completed (2001/2002) 12 lot residential subdivision in Chifley Road (“Lakeview Estate”). The site is strategically located with respect to support services, being around 1.2 kilometres from the Bonnells Bay Shopping Centre. The site is also located at the intersection of the two main roads that run through Morisset Park.

1.2 History of Rezoning and Local Environmental Study

Lake Macquarie Local Environmental Plan 2004 (“LEP 2004”) was gazetted in March 2004. LEP 2004 was the subject of a lengthy community consultation program which included the public exhibition of around 5 continually updated versions of the LEP. The final draft (Version 6 of the draft LEP) was adopted by Council on 18 November 2002 and submitted to the Department of Infrastructure, Planning and Natural Resources on 29 November 2002.

During the community consultation process associated with the preparation of LEP 2004, representatives of the applicant made various submissions to Council to have the land rezoned to 2(1) Residential to facilitate the natural extension of the existing residential areas to the east and north of the site. This included a submission to Version 3 – Exhibition Draft of LEP 2004 which was placed on exhibition between 17 October 2001 and 15



February 2002 (Submission No. 1656). The view of Council Officers in response to this submission, as reported to the Council meeting on 3 June 2002, was as follows:

"Proposed 10 Investigation zone on the site indicated future urban potential. It is not considered appropriate to zone the site 2(1) without rigorous assessment of the capability of the land to accommodate development appropriate to this zone. No information has been submitted to support a residential zone for this site at this time."

Based on the above, the owners of the site proceeded to commission various subconsultant reports to understand the constraints and opportunities of the site with regard to any future residential development thereon.

In May 2004, a Local Environmental Study ("LES") for the site was presented to Council and formed the basis of a subsequent Local Environmental Plan (LEP Amendment No. 10 GG 13 July 2007), which zoned the land 2(1) Residential. The issues associated with the development of the site were fully explored in the LES and the LEP process which included consultation with government agencies, the community, the Koombahtoo Local Aboriginal Land Council and endorsement by the Department of Planning. A summation of the environmental issues relative to the urban development of the land was provided by way of various Council and DOP Officer reports. This included the Section 65 Certificate and Section 64 Report (2005) from Council to the Department of Planning in 2005 (including the Exhibition Material). This documentation is attached as Appendix 32.

1.3 Consent Authority

The site is located within the Lake Macquarie Local Government Area. The Minister for Planning is the consent authority pursuant to the provisions of Part 3A of the EP&A Act as detailed in Sections 5.3 and 5.4.1.

1.4 Other Approvals Required

Pursuant to Clause 75U of the EP&A Act, authorisation for a Part 3A approved projects is not required under the following Acts:

- the concurrence under Part 3 of the Coastal Protection Act 1979 of the Minister administering that Part of the Act,
- a permit under section 201, 205 or 219 of the Fisheries Management Act 1994,
- an approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,
- a permit under section 87 or a consent under section 90 of the National Parks and Wildlife Act 1974,
- an authorisation referred to in section 12 of the Native Vegetation Act 2003 (or under any Act to be repealed by that Act) to clear native vegetation or State protected land,
- a permit under Part 3A of the Rivers and Foreshores Improvement Act 1948,
- a bush fire safety authority under section 100B of the Rural Fires Act 1997,
- a water use approval under section 89, a water management work approval under section 90 or an activity approval under section 91 of the Water Management Act 2000.
- Division 8 of Part 6 of the Heritage Act 1977.

In relation to the above, the following is of relevance to the proposed development:



- A Permit under Section 87 of the National Parks and Wildlife Act 1974 was obtained prior to the rezoning of the site in 2007.
- The proposal involves the subdivision of land classified as bushfire prone land that could lawfully be used for residential or rural residential purposes. However, as provided above, an approval pursuant to Section 100B of the Rural Fires Act 1997 is not required.

Pursuant to Clause 75V of the EP&A Act, an authorisation of the following kind cannot be refused if it is necessary for carrying out an approved project and is substantially consistent with the approval:

- an aquaculture permit under section 144 of the Fisheries Management Act 1994,
- an approval under section 15 of the Mine Subsidence Compensation Act 1961,
- a mining lease under the Mining Act 1992,
- a production lease under the Petroleum (Onshore) Act 1991,
- an environment protection licence under Chapter 3 of the Protection of the Environment Operations Act 1997 (for any of the purposes referred to in section 43 of that Act),
- a consent under section 138 of the Roads Act 1993,
- a licence under the Pipelines Act 1967.

In relation to the above, the following is of relevance to the proposed development:

- The proposal comprises development of land within a Mine Subsidence District and therefore an approval pursuant to Section 15 of the Mine Subsidence Compensation Act 1961 is required. However, as detailed in Section 2.8 and Appendix 31, the Mine Subsidence Board has already granted approval.
- A consent under Section 138 of the Roads Act 1993 will be required for new road connections to Chifley Road and driveway connections to Morisset Park Road.

1.5 Scope of Environmental Assessment

This EA accompanies a project application for the proposed development. It has been prepared on behalf of the applicant and addresses the Director General's Requirements dated 16 May 2008 (see Appendix 1). This EA is structured as follows:

- A description of the site is provided in Chapter 2.
- A description of the character of the surrounding area is provided in Chapter 3.
- A description of the proposed development is provided in Chapter 4.
- The relevant statutory planning provisions, policies and plans are set out in Chapter 5. These include the provisions contained in the following:
 - State Environmental Planning Policies ("SEPPs")
 - SEPP 19 – Bushland in Urban Areas
 - SEPP 44 – Koala Habitat Protection
 - SEPP 55 – Remediation of Land
 - SEPP 71 – Coastal Protection
 - SEPP – Major Projects 2005



- Draft SEPP 66 – Integration of Land Use and Transport

- Hunter Regional Environmental Plan 1989 (“HREP 1989”)
- Lake Macquarie Environmental Plan 2004 (“LEP 2004”)
- Lake Macquarie Development Control Plan No.1 – Principles of Development “DCP 1”)
- NSW Coastal Policy 1997
- Coastal Design Guidelines for NSW
- Hunter Coastal Urban Settlement Strategy
- Lower Hunter Housing Market Study
- Lower Hunter Regional Strategy
- Lake Macquarie Lifestyle 2020 Strategy
- Lake Macquarie Scenic Quality Guidelines 2004
- An assessment of the key issues is provided in Chapters 4 and 6.
- A Draft Statement of Commitments is provided in Chapter 7.

The following drawings, documents and technical reports have been attached in support of the DA and are included in the appendices of this EA:

- Director General’s Environmental Assessment Requirements (Appendix 1).
- Location Plan (Appendix 2).
- Aerial Photograph (Appendix 3).
- Zoning – Lake Macquarie LEP 2004 (Appendix 4).
- Council’s Coastal Zone Map (Appendix 5).
- Council’s Bushfire Prone Land Map (Appendix 6).
- Deposited Plans (Appendix 7).
- Survey Plan prepared by de Witt Consulting (Appendix 8).
- Site Analysis Plan prepared by Terras Landscape Architects (Appendix 9).
- Structure Plan prepared by de Witt Consulting (Appendix 10).
- Proposed Plan of Subdivision Plan prepared by de Witt Consulting (Appendix 11).
- Plan of Trees to be Retained prepared by de Witt Consulting (Appendix 12).
- Plan of Trees to be Removed prepared by de Witt Consulting (Appendix 13).
- Landscape Design Report and Concept Plans prepared by Terras Landscape Architects (Appendix 14).
- Visual Impact Statement prepared by Terras Landscape Architects (Appendix 15).
- Ecological Assessment Report prepared by Harper Somers O’Sullivan Pty Ltd (Appendix 16).
- Ecological Report Pertaining to Wildlife Corridor Issues prepared by Harper Somers O’Sullivan Pty Ltd (Appendix 17).
- Bushfire Threat Assessment prepared by Harper Somers O’Sullivan Pty Ltd (Appendix 18).
- Aboriginal Heritage Survey prepared by Koombahtoo Local Aboriginal Land Council (Appendix 19).



- Archaeological Assessment prepared by Insite Heritage (Appendix 20).
- Archaeological Excavation Report (Section 87 Test Probe Permit) prepared by Insite Heritage (Appendix 21).
- Aboriginal Community Consultation Report prepared by Insite Heritage (Appendix 22).
- Stability Assessment and Preliminary Contamination Assessment prepared by Coffey Geosciences Pty Ltd (Appendix 23).
- Traffic Impact Study prepared by Northern Transport Planning and Engineering (Appendix 24).
- Social Impact Assessment prepared by Key Insights Pty Ltd (Appendix 25).
- Flooding, Surface and Groundwater Hydrology Assessment prepared by Northrop Engineers (Appendix 26).
- Concept Stormwater Management Plan and Road Design prepared by Northrop Engineers (Appendix 27).
- Construction Management Plan prepared by Hale Development Services (Appendix 28).
- Quantity Surveyors Certificate (Appendix 29).
- Letters from Utility Companies (Energy Australia, Agility, Hunter Water) (Appendix 30).
- Letter from Mine Subsidence Board dated 30 April 2007 (Appendix 31).
- Section 65 Certificate and Section 64 Report (2005) from Council to Department of Planning regarding LEP Amendment No. 10 (includes Exhibition Material) (Appendix 32).
- Gazettal Notice for Lake Macquarie LEP Amendment No. 10 (Appendix 33).
- Notes from Pre-DA Meeting with Council on 4 December 2007 (Appendix 34).

1.6 Project Justification

The site planning process included a site analysis that determined opportunities and constraints for development of the land for residential purposes in accordance with its recent rezoning to 2(1) Residential. This analysis considered:

- The previous LES prepared in relation to the recent rezoning of the land.
- The existing zoning and planning controls.
- The results of the detailed environmental studies and specialist reports.
- The design of the development in accordance with the constraints and opportunities of the land.
- The best management of stormwater and water quality controls.
- The service capability and location of the site.
- Existing road access.

The resultant subdivision of the site is consistent with the findings of the Local Environmental Study and is consistent with the planning controls that apply to the site.



1.7 Checklist of Director General's Requirements

The following table summarises the KEY issues raised in the Director-General's Environmental Assessment requirements (see Appendix 1) and where they have been addressed in this documentation and the associated Appendices.

KEY ISSUES	REPORT REFERENCE
1. STRATEGIC PLANNING	Section 5.
2. SUBDIVISION DESIGN, LAYOUT AND DESIRED FUTURE CHARACTER	
<i>2.1 Consistency with character of existing development.</i>	Sections 4.2, 4.3 and 4.4.
<i>2.2 Consistency with Coastal Design Guidelines for NSW, Coastal Policy 1997 and SEPP 71 – Coastal Protection.</i>	Section 5.4.
<i>2.3 Identify type of subdivision proposed.</i>	Section 4.3.
<i>2.4 Details of potential building envelope, built form and design quality controls and the means for implementing them.</i>	Section 4.4.
<i>2.5 Details of any staging.</i>	N/A – The development will be completed in one stage.
<i>2.6 Details of long term management and maintenance of areas of open space and conservation.</i>	N/A – No areas of open space or conservation areas are proposed. Sections 4.5, 4.6 and 4.7 deal with provision and maintenance of infrastructure.
3. VISUAL IMPACT	Sections 2.12, 5.6.4 and Appendix 15.
4. INFRASTRUCTURE PROVISION	
<i>4.1 Existing capacity and requirements for upgrading.</i>	Sections 2.17 and 4.5 and Appendix 30.
<i>4.2 Likely scope of any planning agreement/developer contributions.</i>	Section 4.6
5. TRAFFIC AND ACCESS	Sections 2.13, 4.8, 4.10, 6.4 and Appendix 24.
6. HAZARD MANAGEMENT AND MITIGATION	
<i>6.1 Contamination</i>	Sections 2.10, 5.4.4 and Appendix 23.
<i>6.2 Acid Sulfate Soils</i>	Section 2.9.4 and Appendix 23.
<i>6.3 Bushfire</i>	Sections 2.16, 4.13, 6.6 and Appendix 18.
<i>6.4 Geotechnical</i>	Section 2.9 and Appendix 23.



KEY ISSUES	REPORT REFERENCE
6.5 Flooding	Section 2.6 and Appendix 26.
7. WATER CYCLE MANAGEMENT	Section 4.9 and Appendix 26 and Appendix 27.
8. HERITAGE AND ARCHAEOLOGY	
8.1 Aboriginal Cultural Heritage	Sections 2.15 and 6.7 and Appendices 19, 20, 21 and 22.
8.2 European Cultural Heritage	Sections 2.15 and 6.7.
9. FLORA AND FAUNA	
9.1 Potential impacts on aquatic and terrestrial flora and fauna and their habitats (within the meaning of the Threatened Species Conservation Act 1995 and the Fisheries Management Act 1994).	Sections 2.14, 4.12 and Appendix 16.
9.2 Conservation of existing wildlife corridors.	Section 2.14.6 and Appendix 17.
9.3 Measures to protect riparian corridors.	N/A. There are no watercourses on site.
10. NOISE	Section 6.9 and Appendix 28.
11. MINE SUBSIDENCE	Section 2.8 and Appendix 31.
12. CONSULTATION	Section 1.8 and Appendices 22, 25, 30, 31, 32 and 34.

1.8 Consultation

The proposed development has been the subject of government agency, Council and public consultation since the rezoning process commenced in 2003.

In October and November 2005, Council exhibited Draft Amendment No. 10 to the Lake Macquarie LEP 2004 which proposed the rezoning of the site from 10 Investigation to 2(1) Residential. This rezoning was not controversial and obtained overall support from the public and government agencies. The consultation during this process included the following:

- All relevant NSW Government Agencies.
- Lake Macquarie City Council.
- Public submissions.
- Koopahtoo Aboriginal Land Council.
- Service Authorities (Hunter Water Corporation, Energy Australia, Agility).

This consultation process is described in the Section 65 Certificate and Section 64 Report (2005) from Council to Department of Planning (including the Exhibition Material), which is attached as Appendix 32.

In addition to the above extensive negotiations were held with the Roads and Traffic Authority which culminated in a Deed of Agreement between the landowner and the RTA for the funding of an upgrade to the intersection of Fishery Point Road and Macquarie Street (State Classified Road). This agreement was signed in March 2007.



On 4 December 2007 a pre-DA meeting was held with Mr Greg Field (Chief Subdivision Engineer) of Lake Macquarie City Council to discuss the Council requirements in relation to the proposal. Notes from this meeting are provided in Appendix 34.

At the request of the DOP, Insite Heritage have undertaken further Aboriginal Community Consultation pursuant to the Interim Community Consultation Requirements for Applicants (DEC 2004). Details in this regard are provided in the Aboriginal Community Consultation Report in Appendix 22.

Various discussions have also been held with Officers of the Department of Planning during the preparation of the EA.



2. THE SITE

2.1 Location

The location of the site is identified in Appendices 2, 3, and 4. The site is located at Morisset Park approximately 3.5 kilometres to the east of the intersection of Macquarie Street/Main Northern Railway and Fishery Point Road. The site is located immediately to the south west of the existing urban area of Morisset Park and Windermere Park. It is bounded by Morisset Park Road to the south, Chifley Road to the east and the dwellings fronting Frederick Street to the north.

2.2 Title Details and Ownership

As shown on the Survey Plan in Appendix 8, the site comprises the following lots:

- Lot 9 in DP 244002 being at the corner of Chifley Road and Morisset Park Road.
- Lot 358 in DP 755242, being off Morisset Park Road and to the west of Lot 9.

The site is owned by Mr C Wright and Mr I Cairns.

2.3 Areas

The dimensions of the site are clearly shown on the survey plan in Appendix 8. The site has an approximate area of 6.4 hectares. The site has frontage to Morisset Park Road of around 278 metres and frontage to Chifley Road of around 167.5 metres.

2.4 Easements

No easements are shown on either Lot 9 in DP 244002 or Lot 358 in DP 755242.

The existing easements adjacent to the site are shown on the Detail and Contour Survey Plan in Appendix 8. The easement appurtenant to Lot 9 DP 244002 and burdening Lot 2 DP 244002 was created by a transfer. A copy of this dealing being Z910969 grants the following rights to the dominate tenement over the servient tenement:

"Full and free rights.....to place and maintain and repair any pipes and conduits and power poles and cables or whatever may be deemed necessary by the relevant authorities to provide services or water and electricity and telephone and drainage of water from the lot benefited by this easement..... the rights shall be limited to the area designated on the plan annexed hereto. In addition the transferor is to have the right of carriageway over the same area of land..... as defined within section 88a and 181a of the Conveyancing Act, 1919."

2.5 Topography and Surface Hydrology

The site is located in an area of gently undulating topography with the majority of land in the area sloping gently towards Lake Macquarie. The site slopes gently to the north and north east. The highest point on the site is



located in the south western corner at 25 metres AHD. The lowest point of the site is located in the north eastern corner at around 10 metres AHD.

Drainage over the site is predominantly by overland flow, with some infiltration and subsurface flow. The site drains towards Freshwater Creek which leads into Lake Petite and eventually Lake Macquarie. A drainage gully intersects the south eastern corner of Lot 9 in DP 244002 and discharges to the north east. The site currently experiences relatively small amounts of runoff that are mainly caught in the swales on the western side of Chifley Street. These eventually divert the water to the east, through an existing pipe culvert underneath Chifley Street. A water easement is reserved at the north-eastern edge of the site which is able to be used as an outflow from the main part of the site.

The Concept Stormwater Management Plan and Road Design prepared by Northrop Engineers (see Appendix 27) discusses in detail the surface runoff regime of the site.

2.6 Flooding

The site has not been identified as being prone to flooding. There are no watercourses which traverse the site and the site is well removed from the waters of Lake Macquarie. As detailed in the Flooding, Surface and Ground Water Hydrology Assessment prepared by Northrop Engineers (see Appendix 26), the 1 in 100 year flood level for the area is 1.38 metres AHD. The levels on the site vary between around 10 metres AHD to 25 metres AHD (see Appendix 8). Localised flooding will be generated only by the stormwater falling on the site and will be managed as part of the proposed subdivision (see Section 4.9).

2.7 Ground Water Hydrology

As detailed in the Flooding, Surface and Ground Water Hydrology Assessment prepared by Northrop Engineers (see Appendix 26) the site is elevated and there are no natural springs on the site. Furthermore, given that the site varies between 10 and 25 metres AHD, the levels of ground water will be substantially below the proposed depth of excavation to facilitate the subdivision. Excavations on site as part of the construction of the subdivision will be minimal, as indicated in the preliminary road grading in the Stormwater Management Plan and Road Design prepared by Northrop Engineers (see Appendix 27). As such, groundwater will not be affected by the proposal.

2.8 Mine Subsidence

The site is located within a mine subsidence district and as a result. An approval for the future residential subdivision of the site has already been granted by the Mine Subsidence Board (see Appendix 31).

2.9 Geotechnical Characteristics

2.9.1 Overview

The geological and soil characteristics of the site have been detailed in the Stability Assessment and Preliminary Contamination Assessment prepared by Coffey Geosciences Pty Ltd (see Appendix 23).



The site is located on the northern side of a west to east trending ridgeline with surface slopes ranging from 2 to 5 degrees. The surface soils over the site are typically silty and clayey sands.

2.9.2 Soils

The site is underlain by the Narrabeen Group (Clifton Subgroup and Terrigal Formation) which typically comprises sandstone, siltstone, conglomerate and claystone. Details of the types of soils encountered are provided in Table 1 of Appendix 23. The only area of fill encountered were woodchips associated with the burning of timber and garbage (location S1 on drawing N08340/01-1 in Appendix 23).

2.9.3 Slope Stability

As detailed in the Stability Assessment in Appendix 23, the site has been assessed as having a low risk of slope instability based on the existing site conditions. Any future development will need to be carried out in accordance with good hillside practice, as detailed in the Slope Stability Assessment.

2.9.4 Acid Sulphate Soils

The Acid Sulphate Soils Maps produced by the former Department of Land and Water Conservation indicate that the site is not potentially affected by Acid Sulphate Soils. This is consistent with the elevation of the site being between 10 and 25 metres AHD.

2.10 Contamination

As detailed in the Stability Assessment and Preliminary Contamination Assessment prepared by Coffey Geosciences Pty Ltd (see Appendix 23), the history of previous uses on the site does not indicate that there was any contamination. There was also no evidence of contamination (such as odours, oily sheens, vegetation dieback or distress) observed during the walkover assessment.

Notwithstanding the above, various areas on the site were identified as being of concern with respect to potential contamination. These are as follows:

- The area of filling on Lot 9 (as shown on drawing N08340/01-1 in Appendix 23) where burning of timber and other materials had taken place.
- The old garage on Lot 9 where a small container of oil was found within the garage, along with a number of other unlabeled containers.
- The minor dumping area around the garage of Lot 358 where old empty 44 gallon drums had been dumped. The labels on these drums indicated that they once contained "bakers product".

Following surface sampling at four locations across the site, the area where some burning had been undertaken (Sample S1) showed arsenic concentrations in excess of the adopted guidelines for residential sites. This sample was also found to contain elevated chromium, copper and zinc concentrations in excess of the adopted Ecological Investigation levels. Sample BH3 also contained zinc at concentrations in excess of the adopted Ecological Investigation levels.

As a result of the above, some remediation work will be required prior to the use of the site for residential purposes. Prior to this remediation work, further investigation will be required to define the vertical and lateral extent of the contamination in these areas.

2.11 Existing Development

The site is developed for rural residential purposes and consists of a mix of grazing areas, short grass, tall Eucalypt trees and areas of dense vegetation comprising mature Eucalypt trees with a dense undergrowth of grasses, ferns and small shrubs.

Located in the south western corner of Lot 9 is a rural residence with associated outbuildings and sheds. Located in the south eastern corner of Lot 358 is a rural residence with associated outbuildings and sheds. The location of these buildings on the site is clearly shown in the aerial photograph in Appendix 3.

Three small dams are located on Lot 9 to the east and north east of the existing dwelling.

Photos of the site are provided in the Survey Plan in Appendix 8, the Site Analysis Plan in Appendix 9 and below.



Photo 1 – Looking from the south western corner of the site towards the north east.



Photo 2 – View of Lot 358 DP 755242 showing the existing dwelling and access driveway.



Photo 3 – View of Lot 9 D.P.244002 showing the existing dwelling and access driveway.



2.12 Scenic Values

2.12.1 Overview

The Scenic Values of the site and surrounding area are set out in Section 2.1.3 of Lake Macquarie Development Control Plan No. 1 – Principles of Development (“DCP 1”) and the Lake Macquarie City Council Scenic Quality Guidelines - 2004 (“Scenic Guidelines”).

These Scenic Guidelines provide a method for assessing the scenic quality of the land. This method has been followed and is detailed below:

2.12.2 Landscape Setting Unit Qualities

The site is located on the western edge of the Bardens Bay Landscape Setting Unit. The Landscape Setting Resource Sheet for Bardens Bay identifies the site as having a “Moderate” Scenic Quality rating. The landscape characteristics of Moderate Rating Units are described in Section 2 of the Scenic Guidelines as follows:

“The natural landscape is still dominant but new development is obvious to the viewer. Vegetation diversity and landform ruggedness are moderate. The foreshore and beaches are characterised by a uniform waters edge or some alteration with urban development or structures. Hinterland landscapes have a moderate landform diversity or limited outlooks.”

This resource sheet describes the Land Use in the area as “residential and recreational” and the Scenic Features as “lake views and treed ridgeline”. The Observation Points are described as “road access to Lake”, “boat ramps” and “lake foreshore below Bulgonia Road”. The Landscape Appreciation is described as follows:

“Access to the lake edge is limited. Residential areas along the hillside enjoy Lake views. The natural edge at Lake Petite is a scenic contrast to the developed lake edge.”

It is considered that the residential subdivision of this land will be consistent with the identified landscape setting characteristics and qualities of Bardens Bay for the following reasons:

- The majority of the site (Lot 9 and the south eastern portion of Lot 358 is developed and/or disturbed, as detailed in the Ecological Assessment Report in Appendix 16 and Section 2.14 of this EA. As a result, the majority of the site does not comprise a natural landscape but rather one that is highly modified and developed.
- The site is not visible from the lake or sea and does not function as a backdrop, dominant ridgeline or landscape. The site borders on a developed suburban environment, which is located to the north and east.
- The site is presently used for rural residential purposes and is proposed to be developed for residential purposes. This is considered to be consistent with the existing characteristics of the Bardens Bay landscape setting unit.
- The site is well removed from the identified Observation Points and Scenic Features in the area, particularly the natural edge around Lake Petite and the lake edge.

2.12.3 Scenic Quality Objectives of the Bardens Bay Landscape Setting Unit

As the Bardens Bay Landscape Setting Unit is classified as a “Moderate Unit”, the following Scenic Quality Objectives are relevant:

“To ensure that new development does not diminish the scenic quality of Lake Macquarie landscaped by:



- *maintaining the dominance of the natural landscapes on ridgelines, Lake foreshore and coastline over urban development,*
- *retaining vegetation and landscape features that contribute to the landscape character in major viewsheds, and*
- *ensuring new development does not become prominent or dominate the landscape of its setting."*

It is considered that the proposed residential subdivision of the site will be consistent with these Scenic Quality Objectives for the following reasons:

- The site comprises land that is developed and disturbed and is not a major contributor to the value, amenity and identity of Lake Macquarie.
- The majority of the site is not one that is dominated by the natural landscape due to its disturbed and developed nature. The site does not comprise a ridgeline, Lake foreshore or coastline and is located adjacent to the suburban residential area of Windermere Park. The dominance of the natural landscape to the west and south of the site (see Section 3.1) will not be affected by the proposal.
- The site is not identified as a major viewshed and is not affected by a major viewshed, as defined in the Scenic Guidelines.
- The site and the areas to the north and east are already characterised by residential development. The proposal will not result in any significant further dominance of the natural landscape. Residential housing is already visually dominant in this natural area.
- The site is not directly visible from any identified scenic route or viewpoint.
- The site will not be visible from any identified prominent landscape or scenic feature (see Section 2.12.5 below).

2.12.4 Scenic Management Zone of the Site

The Scenic Zone Maps in the Scenic Guidelines identify the site within "Scenic Management Zone C – Moderate". This zone is defined as follows:

"Zone C

Is assigned to areas of moderate to low scenic quality and where the landscape values, while not making a significant contribution to the City's image and attractiveness, do not detract significantly from that image or amenity."

It is considered that as the site is well removed from the lake and within the western section of the Bardens Bay landscape setting unit, it has a low rather than moderate scenic quality. The site is predominantly developed and disturbed and adjacent to suburban residential areas. It is predominantly the natural areas to the south and west of the site that make any contribution to the scenic image of the area, rather than the site itself.

The Scenic Management Zone Objectives for Zone C, detailed in Table 2 of the Scenic Guidelines, identify the following location categories:

- Ridgelines and Hillside;
- Foreshore and Coastline;
- Rural Landscapes and Forested Hinterland; and
- Urban Areas.



In this regard it is relevant to note that none of the above terms are defined in either the Lake Macquarie Local Environmental Plan 2004 or Development Control Plan No. 1. Nevertheless, the site is located on the northern side of a ridgeline. However, it is considered that the site does not fall within the common definition of a Ridgeline. This is primarily given the gentle slope of the site and the fact that a more prominent ridgeline (which is visible from the lake) runs along the general alignment of Fishery Point Road. It is also considered that the site does not fall within the common definition of a Rural Landscape, given the developed nature of the site and the fact that the land to the north and east is developed as a residential suburb. It is considered that the site falls within the definition of a Hillside. The Scenic Management Zone objective for Hillside is described as follows:

"To protect the natural character of ridgelines and to maintain the predominant natural character of hillsides by ensuring development does not exceed a moderate level of visual impact."

The Strategies for achieving this objective are described in Table 2 as follows:

- *"Development maximises opportunities for enhancing the tree canopy along ridgelines.*
- *Clearing is restricted to maintain an even balance between the visible tree canopy and development.*
- *Where partially reduced in density, the tree canopy is retained by minimising further tree or vegetation clearance and where possible enhanced."*

It is considered that the residential subdivision of the site will be consistent with the above objective and strategies for the following reasons:

- There will be no vegetation removal on a ridgeline and the site is not in proximity to any significant feature, viewing point or ridgeline (see Section 2.12.5 below).
- A substantial tree canopy will be retained on the site, as detailed in Section 4.14. The clearing required is predominantly related to the need to provide adequate asset protection zones in the event of a bushfire (see Sections 2.16 and 4.13). Any future residential development of the site will also be accompanied by substantial landscaping to ensure, inter alia, a softening of the dwellings on the site.
- Roadside trees and other roadside vegetation will not be significantly affected and will be supplemented as part of the proposed landscaping.

2.12.5 Significant Features, Viewing Points and Ridgelines

Section 2.1.1 and Appendix 3 of the Scenic Guidelines identify the Significant Features, Viewing Points and Ridgelines within the local government area.

There are no Significant Features or Viewing Points that are in proximity to the site or which will be affected by development on the site. The site is located some 600 metres to the south of the Morisset Peninsula Ridgeline, which generally runs along Fishery Point Road and is identified as a Significant Ridgeline. The site is actually on the northern side of a ridgeline that runs parallel to the Morisset Peninsula Ridgeline and is not identified as being of any significance. Given the distance of the site from the Morisset Peninsula Ridgeline, the proposal will not result in any adverse visual impacts upon this ridgeline.



2.13 Access and Traffic

Vehicular access to both Lots 9 and 358 is presently off Morisset Park Road. The site also fronts Chifley Road which networks with other local roads to give access to the local town centre of Bonnells Bay and Fishery Road (the main access road from Morisset into the Peninsula).

The F3 Newcastle to Sydney freeway traverses the Morisset Planning District (see Appendix 2) and provides for good access to the south. The Morisset Town centre is located within 1 hour of Sydney's northern suburbs and around two minutes off the F3 freeway. Access to the north (eg Toronto and Newcastle) is along Wangi Road or the F3 freeway.

Route 278 of Morisset Bus Services runs along both Morisset Park Road and Chifley Road and connects Morisset Park with Morisset and the wider area. It is understood that Morisset Bus Services operate services to the Morisset peninsula every hour.

A summary of the existing traffic conditions at and surrounding the site is provided in the Traffic Impact Study in Appendix 24. This study shows that the existing road network comfortably accommodates existing traffic flows and that the peak traffic periods are between 8.30am-9.30am and 4.00am-5.00pm.

2.14 Flora and Fauna

2.14.1 Overview

A detailed Ecological Assessment Report of the site has been prepared by Harper Somers O'Sullivan Pty Ltd and is attached in Appendix 16. The report was commissioned to assess the potential impacts of the proposed rezoning on any threatened species, populations or ecological communities listed within the Threatened Species Conservation Act 1995 ("TSC Act 1995"). The general findings of this assessment are provided below.

The Survey Plan in Appendix 8 identifies all the existing trees on the site and includes a detailed list of the various tree species.

2.14.2 Flora

Four vegetation communities exist on the site, as shown in Figure 3.1 in Appendix 16. These are as follows:

- Cleared Land which dominates the site and comprises pasture grasses.
- Exotic Plantations characterised by Slash Pine, Palm Trees and Willow-leaved Cotoneaster. These plantations comprise a small strip along the southern frontage of the site (ie. adjacent to Morisset Park Road).
- Open Eucalypt Forest which occurs in the north western section of Lot 358.
- Modified Open Eucalypt Forest which has been greatly modified by the thinning out of the upper strata and the removal of the entire understorey and shrub layers. This community occurs in the northern and eastern section of Lot 9.

The remnant Open Eucalypt Forest communities on the site are highly modified and are not considered to have any conservation value of significance. No threatened flora species were detected within the bounds of the site and no habitat for any threatened flora species was identified on the site. One species of flora listed as being of local conservation significance was recorded on the site. This species was *Bossiaea stephensonii* which is listed in Appendix 3 of the Lake Macquarie City Council Flora and Fauna Survey Guidelines as "Uncommon in the north

of the region, not reserved.” In this regard it is relevant to note that the site is not located within the north of the region and less than 5 plants were observed within the site.

Notwithstanding the above, the Ecological Assessment Report in Appendix 16, recommends maximum retention of hollow-bearing trees on the site. The future subdivision and development of the site has been designed to ensure that this occurs (see Structure Plan in Appendix 10, Proposed Plan of Subdivision Plan in Appendix 11, Plan of Trees to be Retained in Appendix 12 and the Landscape Plan in Appendix 14).

2.14.3 Habitats

The habitat types present on the site comprise Open Eucalypt Forest and Cleared Land.

The Open Eucalypt Forest could provide potential habitat for terrestrial mammals that are more tolerant to disturbed areas. The ground of the forest floor contained a thick leaf litter layer and fallen logs, giving scope for small reptiles. These Eucalypt trees could also provide foraging opportunities for nectivorous, herbivorous and insectivorous species such as a range of avifauna and arboreal mammals (particularly during flowering periods). Some of these trees also exhibited hollows (both small and large) which could be used as a nesting or roosting resource for hollow-dependent birds or mammals, in particular *Petaurus norfolcensis* (Squirrel Glider) which is listed as a threatened fauna species.

The Cleared Area offers little opportunity for native fauna, other than a foraging area for birds or basking habitat for reptiles.

The habitats present on the site occur commonly in the locality and are in abundance in the region.

Notwithstanding the above, the Ecological Assessment Report in Appendix 16, recommends maximum retention of hollow-bearing trees on the site. The future subdivision and development of the site has been designed to ensure that this occurs (see Structure Plan in Appendix 10, Proposed Plan of Subdivision Plan in Appendix 11, Plan of Trees to be Retained in Appendix 12 and Landscape Plan in Appendix 14).



Photo 4 – View west from the Cleared Land / Modified Open Eucalypt Forest, with the Open Eucalypt Forest in the background.



2.14.4 Fauna

The results of the fauna assessment undertaken on the site (see Appendix 16) can be summarised as follows:

- Two introduced species of terrestrial mammal (the Brown Rat and the House Mouse) were captured in terrestrial traps. No native terrestrial mammals were trapped.
- No arboreal mammals were captured in the traps.
- Three species of Microchiropteran bats were recorded on the site. Of these, only the Large Bentwing-bat and the Eastern Freetail-bat are listed as "Vulnerable" under Schedule 2 of the TSC Act 1995.
- One threatened bird species (Glossy Black-Cockatoo) was recorded within the site and suitable nesting hollows within Eucalyptus trees exist within the site.
- Individuals of Grass Snake were observed within the leaf litter during diurnal surveys.
- Claw marks and scratches belonging to the Common Brushtail Possum were observed on the site.

Pursuant to the above, 4 threatened species have been identified as being potentially affected by the proposal. These species are:

- | | |
|-----------------------------------|-----------------------|
| ➤ <i>Mormopterus norfolkensis</i> | Eastern Freetail-bat |
| ➤ <i>Miniopterus schreibersii</i> | Large Bentwing-bat |
| ➤ <i>Calyptorhynchus lathami</i> | Glossy Black-Cockatoo |
| ➤ <i>Petaurus norfolcensis</i> | Squirrel Glider |

Pursuant to the provisions of the Environmental Planning and Assessment Act, 1979 a Seven part test has been applied to the above species to determine whether the proposal may have a significant impact upon populations of these species such that a local extinction may occur. These seven part tests are included in the Ecological Assessment Report in Appendix 16 and conclude that the proposal would not significantly affect local populations of these species such that local extinctions would occur.

Notwithstanding the above, the Ecological Assessment Report in Appendix 16, recommends maximum retention of hollow-bearing trees on the site. The future subdivision and development of the site has been designed to ensure that this occurs (see Structure Plan in Appendix 10, Proposed Plan of Subdivision Plan in Appendix 11, Plan of Trees to be Retained in Appendix 12 and Landscape Plan in Appendix 14).

2.14.5 Koalas

No Koalas were observed during the fauna survey undertaken on the site and there was no evidence of previous Koala habitation in the area. However, one Koala food tree species (*Eucalyptus haemastoma*/Scribbly Gum) listed in Schedule 2 of State Environmental Planning Policy No. 44 – Koala Habitat Protection ("SEPP No. 44"), was observed on the site. The Scribbly Gum species was found within the Open Eucalypt Forest and the Modified Open Eucalypt Forest within the site. It occurs at a density greater than 15% within these vegetation communities and is therefore classified as "Potential Koala Habitat" pursuant to SEPP No. 44. However, searches for secondary indications of Koalas on the site, within those areas determined to be "Potential Koala Habitat", revealed no secondary evidence of the presence of Koalas. As a result, these areas do not qualify as "Core Koala Habitat" and no further provisions of SEPP No. 44 apply to the site.

Notwithstanding the above, the Ecological Assessment Report in Appendix 16, recommends maximum retention of hollow-bearing trees on the site.



2.14.6 Ecological Corridors

An Ecological Assessment pertaining to wildlife corridor issues has been prepared by Harper Somers O'Sullivan and is included in Appendix 17. This investigated, in particular, whether the vegetation on the site (in particular the trees within the western portion of the site) formed an integral part of any ecological corridor. In particular, whether the site formed part of any ecological corridor with the adjoining bushland to the west [zoned 7(5) Environmental (Living)] or the State Forest to the south (on the opposite side of Morisset Park Road). This assessment concluded as follows:

"The following points conclude the arguments presented within this report, asserting that the bushland within Portion 358 DP 755242 should not be identified as an integral part of any wildlife corridor.

- *The bushland within the site is separated from bushland to the south by both a 40-50m wide cleared area and Morisset Park Road, with only a row of remnant trees in between, giving up to a 70m gap between forested areas of habitat in this 'corridor'.*
- *The bushland on Portion 358 terminates in the north into residential dwellings, whereas the bushland to the west continues northwards into larger areas of habitat. As such, this area could only be construed as being an outlier to the true corridor, which lies on the adjacent land.*
- *Under the proposal to rezone and subdivide the site and land to the east, habitat trees within an Asset Protection Zone (bushfire protection) area will remain as managed habitat in the future, thus retaining many of the ecological attributes currently existing in that area. The APZ comprises 33% of the vegetation in question and therefore the total impact of future development on vegetation cover will be minimal.*
- *It is considered that this area is best-served as providing 'habitat' as opposed to being identified as an essential part of a wildlife corridor in the long term. Many habitat trees have been noted on the Site Analysis drawings in the rezoning application and can be retained as part of a future development on the site.*

It is therefore concluded that although the site is connected to bushland to the west zoned 7(5), it does not form an important part of any potential habitat corridor and should not be included within the 7(5) zoning."

2.15 Heritage and Archaeology

2.15.1 Heritage Council Act 2003 and Environment Protection and Biodiversity Conservation Act 1999

In 2003 the Australian Heritage Commission Act 1975 ("AHC Act"), which established the Australian Heritage Commission and the Register of the National Estate ("RNE"), was repealed. Heritage conservation legislation at a federal level was amended by the Australian Heritage Council Act 2003 together with amendments to the Environment Protection and Biodiversity Conservation Act 1999 ("EPBC Act"). This introduced a new scheme of heritage protection that effectively focuses on national, as opposed to state and territory, heritage concerns. The new regime provides for the continuation of the RNE, however, the RNE is now used as an information resource to which the newly formed Australian Heritage Council ("AHC") is able to add places that it believes meet the prescribed criteria. Under the new regime, two new lists have been created to add to the RNE. These are the National Heritage List ("NHL") and the Commonwealth Heritage List ("CHL"). The AHC is intended to provide independent and expert advice to the minister on conserving and protecting places included in the NHL and the CHL. The AHC is also charged with keeping the RNE.



The site is not listed on the RNE, the NHL or the CHL. Furthermore, no adjoining site is listed on these lists.

2.15.2 Heritage Act, 1977

The Heritage Act 1977 was passed to conserve the environmental heritage of New South Wales. The Heritage Act is binding on all State Government agencies, including Councils. Items of heritage significance are protected by the means of Interim Heritage Orders or by listing on the State Heritage Register.

The site is not listed on the State Heritage Register.

Section 139 of the Heritage Act also includes additional special provisions passed to protect "relics". A "relic" is defined as meaning:

"relic means any deposit, object or material evidence:

- "(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and*
- (b) which is 50 or more years old."*

Section 139 states:

- "1) A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit."*
- 2) A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit."*

There is no formal register of "relics" held by the NSW Heritage Office. Some of the sites listed on the State Heritage Register or in Local Environmental Plans may either be "relics" or have relics associated with them. As detailed in this EA, the site is not listed on either the State Heritage Register or on any heritage schedule/register in an environmental planning instrument (see below). As a result, there is no evidence that the site contains any relic.

2.15.3 Environmental Planning and Assessment Act, 1979

The EP&A Act requires that consideration be given to environmental impacts as part of the land use planning process (including heritage impacts). Pursuant to the provisions of the EP&A Act, Environmental Planning Instruments ("EPI's") including State Environmental Planning Policies ("SEPP's"), Regional Environmental Plans ("REP's") and Local Environmental Plans ("LEP") can be made. Typically, EPI's include provisions that protect items of environmental heritage and have schedules which list heritage items, relics, heritage conservation areas and so on.

With regard to the proposed development on the site, there are a range of EPI's that are relevant. These are addressed in Section 5 of this EA. Of these EPI's, only the following contain heritage schedules/lists:

- Hunter Regional Environmental Plan 1989 (Heritage).
- Lake Macquarie Local Environmental Plan 2004.

In this regard it is relevant to note the following:



- The site is not listed as a State Heritage Item, a Regional Heritage Item, a Local Heritage Item, an Item Requiring Further Investigation or a Conservation Area pursuant to the Hunter Regional Environmental Plan 1989 (Heritage).
- The site is not listed as a Heritage Item, a Potential Archaeological Site, a Natural Heritage Item, a Place of Aboriginal Heritage Significance or a Heritage Conservation Area pursuant to the provisions of Lake Macquarie Local Environmental Plan 2004.

2.15.4 Aboriginal Heritage

The potential presence of Aboriginal artefacts on the site has been reviewed by the Koopahtoo Local Aboriginal Land Council whose assessment is included in Appendix 19. This assessment concludes that no aboriginal artefacts were found on the site and that the Koopahtoo Local Aboriginal Land Council has no objection to the proposed development.

Notwithstanding the above, a further Archaeological Assessment was undertaken by Insite Heritage (September 2004 – see Appendix 20) which concluded as follows:

“Given the level of visibility on the site, the environmental context of the study area, the assessment by Koopahtoo LALC, the development plan and the relevant legislation the following management recommendations are made;

1. *In order to provide evidence of due diligence it is recommended a Section 87 permit be sought under the NPW Act 1974. This permit would allow for the excavation of a test probe in the toe slope colluvium to determine the degree of use by Aboriginal people in the area.*
2. *The area of potential is specific and applies to a relatively small portion of the property. Future development layouts could account for the conservation in-situ of cultural material if material of high significance is found.*

The excavation need not be extensive and should be confined to sampling the toe slope colluvium. This report should accompany the permit application. ”

Pursuant to the above recommendations, an archaeological excavation was undertaken by Insite Heritage in 2005. The permit under which the test probes were carried out was No. 2115 issued by the Coffs Harbour office of the Department of Environment and Conservation. The subsequent Archaeological Excavation Report (Section 87 Test Probe Permit) prepared by Insite Heritage concluded as follows (see Appendix 21):

“Due to the absence of any evidence of artefacts or potential archaeological deposit no further work is required. There are no archaeological constraints to the proposed development.

Koopahtoo LALC concur with this result and their full report can be seen in Appendix A.”

In addition to the above and at the request of the DOP, Insite Heritage has undertaken further Aboriginal Community Consultation pursuant to the Interim Community Consultation Requirements for Applicants (DEC 2004). Details in this regard are provided in the Aboriginal Community Consultation Report in Appendix 22. This consultation included sending letters of notification to DEC, Lake Macquarie City Council, Registrar of Aboriginal Owners, Native Title Services and over 30 Aboriginal Groups that are located in the entire Hunter Region. An advertisement was also placed in the Newcastle Herald. The only responses received were the following:

- The Office of the Registrar of Aboriginal Owners responded by stating that the appropriate contact was the Koopahtoo Local Aboriginal Land Council. As detailed in Appendices 19, 20 and 21, Koopahtoo has been involved with this project since its inception, including during the rezoning of the land.



- DEC responded by providing a standard list of the 30 Aboriginal persons and groups located in the entire Hunter Region (even though the site is located within Awabakal Country and most of these persons and groups are not relevant to the study area). Letters have been sent to all these persons and groups. Only a response from the Awabakal Descendants Traditional Owners Aboriginal Corporation has been received and requires certain conditions to be placed on any consent granted (see Appendix 22).

2.16 Bushfire

The site is classified as bushfire prone land pursuant to Council's bushfire prone land maps (see Appendix 6). A Bushfire Threat Assessment for the proposed development has been undertaken by Harper Somers O'Sullivan Pty Ltd and is attached in Appendix 18. This assessment concludes that the site is suitable for the proposed development subject to the following provisions:

- An Asset Protection Zone ("APZ") of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) is provided between dwellings and the western boundary.
- The provision of an Asset Protection Zone of 25 metres (Inner Protection Zone of 15 metres and Outer Protection Zone of 10 metres) between the proposed dwelling on Lot 3 and the vegetation to the north.
- The provision of an Asset Protection Zone of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) between the retained vegetation on Lot 3 and the residential lots to the east (the majority of which comprises a proposed internal road of 14.5 metres).
- An APZ of 20 metres (entirely an Inner Protection Zone) is provided between dwellings and the southern boundary (This 20 metre Inner Protection Area is already established by Morisset Park Road and its associated road reserve).
- Entry and exit points onto both Morisset Park Road and Chifley Road are provided.
- Any future subdivision is connected to the reticulated water mains system.
- The design of the proposed dwellings has regard to the specific considerations of the BCA with regard to the construction of buildings in bushfire-prone areas.
- Any removal of vegetation associated with the construction phases of the development and the creation of APZ's should take into account significant hollow bearing trees and the recommendations of the Ecological Assessment Report to retain such trees (see Appendix 16).

This EA includes a Structure Plan and a Proposed Plan of Subdivision which shows the future residential subdivision layout on the site (see Appendices 10 and 11, respectively). These plans include the above requirements and recommendations in the design. In addition, the plans make provision for the retention of a significant number of the existing hollow-bearing trees on the site (see Appendix 12).

2.17 Services

All necessary services including water, sewer, electricity and telephone are either available or available for connection to the subject property. Discussions with the various service authorities have taken place and copies of the letters received from these authorities are provided in Appendix 30. There is currently reticulated water supply servicing the site and water mains will be extended throughout the site to each lot.

3. THE SURROUNDING ENVIRONMENT

3.1 Physical Environment

3.1.1 Overview

The nature of the surrounding area is clearly shown in the aerial photo in Appendix 3. The character of the surrounding area is one of a mix of cleared land used for rural residential purposes, dense bushland and low density suburban style residential development.

3.1.2 Land to the North

The land to the north is zoned 2(1) Residential pursuant to the provisions of LEP 2004. This land is characterised by dwellings which have frontage to Frederick Street and form part of the Windermere Park suburban area. The Windermere Park suburban area is dissected by Freshwater Creek which runs from west to east into Lake Petite.

3.1.3 Land to the East

The land to the east is predominantly zoned 2(1) Residential pursuant to the provisions of LEP 2004. This land is characterised by dwellings which have frontage to Chifley Road, Park Avenue and Macquarie Road and form part of the Morisset Park suburban area. This includes the recently completed (2001/2002) 12 lot residential subdivision in Chifley Road ("Lakeview Estate").

3.1.4 Land to the South

The land to the south, on the opposite side of Morisset Park Road, comprises dense bushland that forms part of the Lake Macquarie State Recreation Area. This land is zoned 8 National Park pursuant to the provisions of LEP 2004. Further to the south are the waters of Lake Macquarie.



Photo 5 – View south from Morisset Park Road towards the Lake Macquarie Conservation Area.



3.1.5 Land to the West

The land to the west of the site is zoned 7(5) Environmental (Living) pursuant to LEP 2004 and accommodates a single dwelling within a dense bushland setting. The land further to the west is zoned 1(2) Rural (Living) pursuant to LEP 2004 and accommodates a number of rural residences on predominantly cleared land.

3.2 Social Environment

The existing demographic and social profile of the Morisset Park area is described in the Social Impact Assessment ("SIA") prepared by Key Insights Pty Ltd (see Appendix 25). The social profile is summarised in the SIA as follows:

"The existing demographic profile of Morisset Park is marked by trends towards: Australian birth; cultural homogeneity, separate housing; high car ownership; blue collar employment; higher incomes (relative to Peninsula and Morisset), average educational attainment; families with children, low residential density, less young adults; less over 55's; and more babies and preschoolers."

About half of Windermere/Morisset Park households are families with children and one quarter comprises families without children. About 1 in 7 is a sole parent family and 1 in 11 is a lone person household.

With respect to housing, the SIA states the following in Section 4.7:

"Morisset Park has the lowest intensity of residential development on the Peninsula. To equal the residential intensity of Windermere Park, Morisset Park would need to treble the number of existing dwellings or add 460 residents (these figures fall according to how much bush should be considered not available).

Separate houses constitute about 97% of Morisset Park's housing stock. In 2001, there is some semi-detached housing, but no flats in Morisset Park. There was no public housing in Windermere Park or Morisset Park in 2001."



4. THE PROPOSED DEVELOPMENT

4.1 Overview

The proposed development involves the subdivision of Lot 9 DP 244002 and Lot 358 DP 755242, being the land located at the intersection of Morisset Park Road and Chifley Road. The land is known as No's 27 and 51 Morisset Park Road, Morisset Park respectively. It is intended to subdivide the site into 62 residential lots, with 1 lot set aside as a drainage reserve to accommodate a proposed detention basin. The proposed subdivision will require the construction of roads and associated drainage infrastructure, along with the construction of services including sewer, water, electricity, gas and communications to adequately service the proposed lots. It is also proposed to demolish the existing dwellings and associated sheds and outbuildings on site.

The proposed subdivision will require the creation of various easements, restrictions and positive covenants to facilitate the drainage of water, access and to provide for the required bushfire measures. The easements and positive covenants will be created by a Section 88B Instrument under the Conveyancing Act 1919 along with the Plan of Subdivision to be endorsed by Council and lodged and registered at the Land and Property Information, Sydney.

The proposed subdivision of the site follows the recent rezoning of the site to 2(1) Residential pursuant to LEP Amendment No. 10 to the Lake Macquarie LEP 2004.

The site is partially developed for residential purposes and if fully developed for residential purposes will comprise a natural expansion of Morisset Park. It is adjacent to residential development including the recently completed (2001/2002) 12 lot residential subdivision in Chifley Road ("Lakeview Estate"). The site is strategically located with respect to support services, being around 1.2 kilometres from the Bonnells Bay Shopping Centre. The site is also located at the intersection of the two main roads that run through Morisset Park.

As detailed in Section 2.13, the site benefits from good links to the north and south being close to the F3 Newcastle to Sydney freeway.

4.2 Structure Plan and Design Concept

The proposed subdivision will facilitate the future residential use of the site. At the preliminary planning stages, a concept design for the residential development of the site was prepared in the form of a Structure Plan (see Appendix 10) which in turn was informed by the detailed Site Analysis already undertaken (see Appendix 9 and Section 2). The Structure Plan provided for the following form of development:

- A main entry road of 14.5 metres wide leading off Chifley Road and through the centre of the site. This entry and exit point has clear visibility in both directions along Chifley Road.
- A secondary entry road of 14.5 metres wide leading off Morisset Park Road and through the western section of the site. This secondary entry road connects with the main entry road within the site boundaries and has clear visibility in both directions along Morisset Park Road.
- An internal road network comprising interconnected roads (no cul-de-sacs) of 14 metres wide. The proposed road layout would enable the majority of lots to have a north-south orientation. The proposed subdivision layout ensures that east-west lots have sufficient widths to ensure dwellings can be located in a manner which ensures good solar access without overshadowing the lots to the south.
- A bushfire Asset Protection Zone of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) along the western boundary.



- A bushfire Asset Protection Zone of 20 metres (entirely an Inner Protection Zone) along the southern boundary. This 20 metre Inner Protection Area is already established by Morisset Park Road and its associated road reserve.
- The retention of stormwater from the proposed development within the road network. The majority of the stormwater could be stored and maintained on individual lots. However, a detention basin would be provided in the north eastern corner of the site, in accordance with the existing natural drainage patterns across the site.
- The retention of numerous established and hollow-bearing trees on the site, in accordance with the recommendations of the Ecological Assessment Report (see Appendix 16).

The concept Structure Plan indicated that around 72 residential lots would be able to be provided on the site in accordance with the provisions of the site constraints. These lots would range in size from around 600 square metres to 1,000 square metres to ensure consistency with the character of the adjoining residential area. It was envisaged that the detention basin in the north eastern corner of the site would have any area of up to 2,000 square metres.

4.3 Proposed Subdivision

It is proposed to subdivide Lot 9 DP 244002 and Lot 358 DP 755242 into 72 Torrens Title residential lots. The proposed lots range in area between 570m² and 9,610m². The proposed development will require the construction of roads and drainage infrastructure together with provisions for the supply of sewer, water, electricity and communication services. The proposed development will make use of the existing roads, Morisset Park Road and Chifley Road, which border the Site. The Site Analysis Plan and Subdivision Structure Plan in Appendices 9 and 10, respectively demonstrate the site constraints and methods to accommodate these constraints including meeting the requirements of LEP 2004 and DCP 1.

The proposed subdivision layout has been designed to ensure all residential lots are of sufficient size to enable dwellings to be placed upon them without the adverse affects of overshadowing and overlooking. The small percentage of lots that are orientated east west are of sufficient width (greater than 18 metres) to ensure that dwellings will receive good solar access and will not overshadow dwellings to the south. The proposed subdivision layout utilises the north facing slope of the land that provides for greater solar access and less overshadowing as dwellings to the south will be predominately uphill of those dwellings to the north. All of the proposed lots are in accordance with the diagram within Section 2.1.14 - Energy Efficiency '*Lot orientation for good solar access*' in DCP 1 and on the Subdivision Structure Plan in Appendix 10.

The subdivision layout has been designed to utilise the existing street layouts so to provide an enhanced scenic streetscape along these roads. Lots 1 and 2 along the western boundary of the site have sufficient depth to provide for the necessary asset protection zones and retention of hollow bearing trees and allow significant space for dwellings to be constructed. Proposed Lot 3 will have an area of around 9,610 square metres to ensure maximum retention of the vegetation along the western boundary of the site. The retention of these trees within a larger lot has been the subject of discussions with both Department of Planning and Department of Environment and Climate Change.

The proposed road layout is compatible with that of the surrounding development. The main access to the subdivision is gained from Chifley Road with a secondary access off Morisset Park Road. The road layout within the subdivision is a loop structure which provides good connectivity and does not include any cul-de-sacs or dead ends. The road layout also provides for the maximum retention of hollow bearing trees within the Site, as well as the existing trees along the Morisset Park road reserve. Only 7 hollow bearing trees will need to be removed (see Appendix 13).



The proposed subdivision road layout has been influenced by the recommendations of the Bushfire Threat Assessment prepared Harper Somers O'Sullivan (see Appendix 18). The recommendations adopted in the proposed subdivision design include a perimeter internal road with easy access to all lots to provide sufficient access for fire fighting vehicles.

The demolition of this dwellings and associated sheds will be required to allow the proposed subdivision to proceed to its full capability. The management of the demolition and removal of material will be carried out in accordance with all statutory requirements.

4.4 Desire Future Character and Building Controls

The site is zoned 2(1) Residential pursuant to the provisions of LEP 2004. Following subdivision, individual dwellings on each lot will require the lodgement of a separate DA to Council and will be subject to the provisions of both LEP 2004 and the Lake Macquarie Development Control Plan No. 1 – Principles of Development (“DCP 1”). DCP 1 has the following design controls that are relevant for single dwellings that will apply to future buildings on each lot.

Clause	Intent of Clause	Performance Criteria	Acceptable Solutions
2.7 Streetscape and the Public Realm			
2.7.1 – Streetscape and Local Character	The enhancement and creation of attractive, pleasant and safe streetscapes.	P1. – Streetscape built form and landscape: - achieves an attractive setting with a clear character and identity; respects and responds to existing streetscapes in established areas; recognises existing street character; provides for appropriate street tree planting, etc.	A1.1 – Buildings and landscapes are designed to reflect the local context and the positive features of the prevailing character and streetscape. A1.2 – Buildings are designed to enhance mass and proportion, roof form, façade articulation, access driveway locations, verandahs, eaves and parapets and fence style. A1.3 – Existing buildings in sound condition that positively contribute to the streetscape are retained, incorporated and sympathetically treated. A1.4 – Garages and parking structures do not dominate the street frontage by locating these facilities beyond the streetscape and minimising their frontage width.
2.7.8 - Fences	To ensure that fencing is suitable to the development type, complements the existing streetscape and character of the area and promotes safety and security.	P1. – Fencing and walls to: - be compatible with existing streetscape; assist the development to address the street; assist in safety and casual surveillance; assist in highlighting entrances; provide for visual interest without obscuring driveways; assist in defining vehicle driveways.	A1.1 – Fences and walls behind the building line (including rear and side fences) to be a maximum height above natural ground level of: <ul style="list-style-type: none"> • 1.8m; or • Up to 2.5m where agreed to by all parties sharing the fence, but only where each lot can achieve the required level of solar access. Fences and walls forward of the front building line (including front and side fences) to be a maximum height above natural ground level of: <ul style="list-style-type: none"> • 1.8m and greater than 40% transparent; or • 1.2m if solid. A1.2 - Solid fences forward of the building line are not encouraged. A1.4 – Side (behind the building line) and rear fences (that may include retaining walls) are limited to 1.8m in height from natural ground level. A1.5 – Fences and walls maintain sightlines to pedestrian paths and roadways for a length of 6m



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions
			from the corner of the property line to a Local or Collector Road by splaying, etc. A1.6 – Front fences are designed to maintain sightlines to a driveway.
3.4 Housing – Building, Siting, Form and Design			
3.4.1 – Building Siting and Bulk	To ensure the siting and bulk of housing provides a consistent streetscape, residential amenity and contributes to the existing residential character or the envisaged future character, where this has been identified by Council.	P1. – Front setback compliments existing setbacks in the street and responds to the context of the locality.	A1.1 – In the residential zones of established areas, (infill development) the front setback is consistent with the established setbacks. OR Development is setback by the same distance as adjoining buildings. A2.1 – In newly developing areas, front setbacks comply with Table 1 (4m setback for local roads in a residential zone).
		P2. – Side and rear setbacks maximise outdoor living areas, privacy and solar access.	A2.1 – For single dwelling houses, side and/ rear setbacks for east-west orientated lots are to be 0.9 metres at ground floor on the southern boundary and 3m on northern boundary. For North-south lots, side/rear setbacks to be minimum of 0.9m at ground floor. For greater than 1 storey, refer to Section 3.4.4 – Solar Access of DCP. A2.3 – Where a building's walls and roof exceed 15m in length on a side or rear boundary, the wall is articulated to a minimum of 450mm and/or landscaped to provide visual relief. A2.4 – For single dwellings, 0.9m, however any encroachment within 0.9m must comply with the BCA.
		P4. – Building Siting relates to the existing landform and minimises earthworks.	A4. – as per Performance Criteria.
		P5. – Building bulk and form enables a sharing of views with neighbours.	A5. – as per Performance Criteria.
		P7. – The site area and configuration is suitable for the type and scale of development.	A7. – as per Performance Criteria.
		P8. – The siting and bulk of development contributes to the existing or proposed character of the Streetscape.	A8. – as per Performance Criteria.
		P9. – Building bulk is distributed to reduce impacts on neighbours and the street.	P9. – A building envelope plan is prepared and lodged for the site. This building envelope is projected at a 45 degree angle from a height of 3.5m from the side and rear boundaries of each lot.
3.4.2 – Building Heights	To ensure that a building height is compatible with surrounding development and the locality.	P1. – Development responds to its context and adopts the predominant scale, height and bulk of adjoining buildings. Where the proposed development is higher than existing development, a transition of building heights is made	A1 – <ul style="list-style-type: none"> Building heights satisfy limits in Table 3. This sets a maximum height of 8m (2 storeys) for the site. Building heights respond to the positive attributes of the existing local context and the desired future character of the locality.

Clause	Intent of Clause	Performance Criteria	Acceptable Solutions
		between the existing and the proposed.	
3.4.3 – Site Coverage and Unbuilt Areas	To achieve a quality living environment and promote on-site stormwater infiltration by restricting site coverage of buildings and hard surfaces.	P1. – Development maximises permeable surfaces and maintains a balance between the built and unbuilt upon areas. Unbuilt upon areas should be of a suitable size, dimension and slope.	A1. – Site coverage satisfies the requirements detailed in Table 4– Site Coverage and Unbuilt Areas. For single dwellings Table 4 sets a maximum site coverage of 50% (ground floor coverage) and a minimum unbuilt area of 50% (includes outdoor areas and ground floor private outdoor areas). Site coverage should be appropriate for the site's capability and form of development and be consistent with the desired future density for the locality.
3.4.4 – Solar Access	To achieve a quality living environment by ensuring appropriate levels of solar access for new housing and safeguarding solar access to adjoining housing.	P1. <ul style="list-style-type: none"> • Development is capable of receiving sufficient solar access. • Development aims to maintain existing solar access to the living areas, habitable spaces and private outdoor areas of surrounding housing. • Development meets the solar access requirements of 2.1.14 – Energy Efficiency. 	A1.1 – Living areas to be orientated to the north and maintain solar access to these areas. A1.2 – Development ensures living areas, habitable spaces and private outdoor areas of surrounding housing maintains adequate solar access. A1.3 – Development accommodates the natural slope of the land without limiting solar access to the site and surrounding housing. A1.5 – For Single Dwellings <ul style="list-style-type: none"> • The minimum identified private outdoor area should receive at least 3 hours of sunlight between 9am and 3pm on 21 June over 50% of the area.
3.4.5 - Privacy	To maximise visual and acoustic privacy for the occupants of new and existing housing.	P1. – Visual Privacy <ul style="list-style-type: none"> • windows of habitable rooms or private outdoor areas do not directly overlook adjacent dwellings habitable room windows, either within or adjoining the proposed development; and • the windows of habitable rooms or private outdoor areas maintain privacy through building layout, location, screening devices and/or remoteness. 	A1.3 – Where habitable room windows will be directly adjacent to habitable room windows of the neighbouring dwelling, privacy is protected by offsetting windows, raising sill heights, frosted glazing, external screens, etc. A1.4 – The outlook from windows, balconies, stairs, landings, terraces and decks, and other private, communal or public areas, is obscured or screening where a direct view is available into the identified private outdoor area or habitable rooms of an adjoining dwelling. Where screening is required it is landscaped or solid translucent screens or perforated panels.
		P2. – Acoustic Privacy <ul style="list-style-type: none"> • Site layout separates, by way of acoustic barriers, noise generating areas from sleeping areas. • Building design assists in minimising the transmission of sound through the building structure, particularly to sleeping and living 	A2.1 – Bedroom windows are at least 3m from streets and driveways, and parking areas of other dwellings. A2.2 – Bedrooms of one dwelling do not share walls with living rooms or garages of adjacent dwellings. A2.3 – Shared floors and walls between dwellings are constructed in accordance with the noise transmission and insulation requirements of the BCA.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions
		area.	
3.4.6 – Private Outdoor Areas	To ensure occupants are provided with practical, useable and well located outdoor living environments.	P1. – Private outdoor areas are of a useable size, of a suitable slope, directly accessible from living areas, capable of receiving sufficient sunlight, located beyond the street front setback and accessible from the main living area.	<p>A1.1 – The provision of private outdoor areas for residential development at ground floor level, meets the minimum total private outdoor area detailed in Table 5 (35sqm for 2 bedroom dwellings and 50sqm for 3+ bedrooms).</p> <p>A1.2 – The location, design and screening of identified private outdoor areas ensures privacy from adjoining housing.</p> <p>A1.3 – Where the identified private open area is at ground level, it provides an area for entertaining and meets the minimum dimensions.</p> <p>A1.4 – Finished level of identified area is not steeper than 1 in 14.</p> <p>A1.5 – The identified area receives at least 2 hours of sunlight between 9am and 3pm on June 21 over 50% of the area.</p> <p>A1.6 – The short axis of the identified area is orientated within 20 degrees west of north or 30 degrees east of north and is directly accessible to living areas.</p> <p>A1.7 – Where the identified private outdoor area includes a side or rear boundary, it provides an additional 1m landscape strip, to the private area, along the boundary.</p>
3.4.7 – Communications and Other Household Services	To minimise the visual impact of communications infrastructure and other ancillary service structures.	P1. – Other household services, such as solar panels, air conditioning equipment, waste receptacles and rainwater tanks, are not visually obtrusive or offensive because of their size, position or prominence.	<p>A1.1 – A1.3 – No more than one satellite dish per house (diameter not to exceed 900mm and not more than 10m above ground).</p> <p>A1.4 – Solar panels to not have a detrimental visual impact.</p> <p>A1.5 – Air-conditioning equipment and rainwater tanks to be located and/or screened to minimise their visual impact.</p> <p>A1.6 – Waste receptacles and collective/storage areas are discretely located within the site and screened appropriately.</p>
3.4.8 – Garages, Sheds and Driveway Access	To ensure the adequate provision of car parking that is well located and designed, and minimises the visual impact of garages and driveways on the streetscape.	<p>P1. – Vehicle access and driveways:</p> <ul style="list-style-type: none"> • Do not impede the traffic flow on arterial, sub-arterial or collector roads. • Are provided with an entry/exit point for individual developments. • Are safe from hazards and do not affect scenic or ecological values. • Location and length are low-impact. • Are designed, surfaced and sloped to facilitate ease of access, stormwater infiltration and are 	<p>A1.2 – Driveways are offset by 1m from any side boundary to provide landscaping.</p> <p>A1.3 – Driveways are not continuous straight lines.</p> <p>A1.5 – Driveways are a maximum of 1 in 5 longitudinal grade at any point.</p> <p>A1.6 – Driveways at the access point on the road reserve are a maximum of 3m wide on local roads and comply with the provisions of Section 2.6.8 of the DCP – Vehicle Access.</p> <p>A1.9 – Vehicle entry and driveway are clearly distinguished from pedestrian entries.</p> <p>A1.10 – In bushfire risk areas, the access way is suitable for emergency vehicles, has a slope of less than 1 in 6 and has alternative access available for emergency vehicles/evacuation of residents.</p>

Clause	Intent of Clause	Performance Criteria	Acceptable Solutions
		<p>separated from pedestrian entry/access routes.</p> <ul style="list-style-type: none"> Where communal, do not result in over-development of the land. 	
		<p>P2. – Car/Vehicle accommodation is sited so as not to dominate the streetscape and designed to minimise impacts on neighbouring housing.</p>	<p>A2.1 – Floor area for a freestanding garage or shed is 50sqm (7m x 7m), 2.7m high to eaves and 3.7m to ridgeline from natural ground level.</p> <p>A2.3 – Freestanding garages/sheds are not located between the building line and the front boundary of the lot.</p> <p>A2.4 – Garages are located to the side, rear or at a right angle to the building rather than directly fronting the street.</p> <p>A2.5 – Garages/sheds incorporate a pitched roof.</p> <p>A2.6 – Garages oriented to the street are setback 1m from the front building setback and no less than 6m from the front property boundary.</p> <p>A2.7 – Minimum front building setback for garage facilities is 6m.</p> <p>A2.8 – Where garages face the street, the garage opening does not exceed 6m or 50% of the width of the building (whichever is less).</p> <p>A2.9 – Single file parking in front of the garage is allowed, where all parking is within the property boundary.</p> <p>A2.12 – Open car parking structures within the front setback should be suitably screened and should not impact significantly on streetscape, sight lines for vehicles, pedestrian access, solar access, privacy, amenity and pedestrian safety.</p> <p>A2.14 – Car accommodation to be compatible with the overall building design in terms of height, roof form, detail, materials and colour.</p>
		<p>P3. – The number of parking spaces both on and off-site is sufficient to cater for resident and visitor parking needs.</p>	<p>A3.1 – Resident and visitor parking to be provided in accordance with:</p> <ul style="list-style-type: none"> ➤ The number, type, size of dwelling proposed. ➤ The availability and acceptability of kerbside parking. ➤ The type of road frontage, local traffic conditions and on street parking management. ➤ The preference of the target market. ➤ The availability of regular public transport.
3.5 Housing – Specific Housing Types			
<p>3.5.1 – Dwelling Houses</p>	<p>To ensure that a quality living environment is achieved for single dwelling development.</p>	<p>(These Performance Criteria are the same as those already listed in the table above).</p>	<p>(These Acceptable Solutions are the same as those already listed in the table above).</p>



The land to the north and east of the site is currently also zoned 2(1) Residential and is subject to the same planning controls of DCP 1 outlined above. Pursuant to the above provisions, the future character of dwellings on the site will be similar to existing dwellings in the locality as the same planning controls will apply. This will comprise a mix of one and two storey detached dwellings, with setbacks, building envelope and open spaces that are consistent with the existing built form.

4.5 Utility Services and Infrastructure

4.5.1 Overview

The relevant authorities responsible for the utility services have advised that all services required by the development can be either extended or upgraded to service the proposed subdivision needs. Generally water, electricity and communication services will be provided along the road frontage of a lot with a sewer connection available at the lowest point within a lot.

The developer will be responsible for all funding associated with the provision of utility services.

Section 94 Contributions will be made to Council pursuant to the provisions of the Lake Macquarie Section 94 Contributions Plan No. 1 – City Wide to facilitate the long term management and maintenance funding of both Council's utility services as well as the roads and drainage reserve that will be dedicated to Council as part of the subdivision. At the current time, this equates to a Section 94 Contribution of around \$17,000 per lot.

4.5.2 Roads

As detailed above, the proposed roads will be built and funded by the developer and then dedicated to Council. Section 94 Contributions will be paid to facilitate the long term management and maintenance of these roads.

In addition to the above extensive negotiations were held with the Roads and Traffic Authority ("RTA") which culminated in a Deed of Agreement between the landowner and the RTA for the funding of an upgrade to the intersection of Fishery Point Road and Macquarie Street (State Classified Road). This agreement was signed in March 2007 and requires the landowner to pay an amount of \$3,000 per residential lot to the RTA. This Deed of Agreement requires full payment to the RTA by December 2011, or prior to full construction completion, whichever is the sooner.

4.5.3 Sewerage

Hunter Water Corporation ("HWC") has indicated that sewerage services are available to the proposed development. HWC's preliminary investigation has indicated an additional sewerage connection will be required to provide for all lots within the proposed subdivision. The additional requirements of the proposed development may also result in the upgrading of downstream sewer mains and Morisset Park No. 1 Wastewater Pumping Station. A letter from HWC included in Appendix 30 in relation to the likely sewer requirements for the subdivision. An application for a Section 50 Certificate will be made to HWC seeking their formal requirements for the development in this regard in due course.

4.5.4 Water

Water is currently available to the site. HWC's preliminary investigation has indicated that the existing 100mm reticulated watermain along Morisset Park Road may require the upsizing to service the requirements of the proposed subdivision. A letter from HWC included in Appendix 30 in relation to the likely water requirements for the subdivision. An application for a Section 50 Certificate will be made to HWC seeking their formal requirements for the development in this regard in due course.



4.5.5 Electricity

An overhead electricity supply is available to the site via overhead lines in Morisset Park and Chifley Roads. Energy Australia will require underground servicing of the proposed lots and have been approached to determine their requirements with their letter of response in Appendix 30.

4.5.6 Communications

It is anticipated that underground communication services will be able to be provided to each lot and Telstra have been approached to determine their requirements.

4.5.7 Natural Gas

Agility has advised that Natural Gas is available to the proposed subdivision. They will be assessing the economics of providing such a service upon the granting of a consent for this development and will be approached for their formal requirements in due course. This is discussed in their letter in Appendix 30.

4.6 Developer Contributions and Funding

The roads and the detention basin will be funded and constructed by the developer and then be dedicated to Council. The developer will be responsible for the funding of all required utility services in association with the relevant service authorities (see Section 4.5).

Section 94 Contributions will be made to Council pursuant to the provisions of the Lake Macquarie Section 94 Contributions Plan No. 1 – City Wide to facilitate the long term management and maintenance funding of both Council's utility services as well as the roads and drainage reserve that will be dedicated to Council as part of the subdivision. This presently equates to around \$17,000 per lot. As there is a Section 94 Contributions Plan in place, no Planning Agreement with Council is required.

As detailed in Section 4.5.2, a Deed of Agreement has been entered into between the landowner and the RTA for the funding of an upgrade to the intersection of Fishery Point Road and Macquarie Street (State Classified Road). This agreement was signed in March 2007 and requires the landowner to pay an amount of \$3,000 per residential lot to the RTA. This Deed of Agreement requires full payment to the RTA by December 2011, or prior to full construction completion, whichever is the sooner.

4.7 Future Management, Easements, Restrictions and Positive Covenants

The detention area will become a drainage reserve that is dedicated to Council. The roads will be dedicated to Council and will become local roads under the care and control of Council. The dedication of the detention area and roads will take place prior to the registration of the subdivision with the LPI.

To facilitate the stormwater drainage from the lots within the proposed subdivision, easements will be required for the drainage of water over interallotment drainage lines. Easements to drain water 2 metres wide will be required over lots identified with an (C) in the Proposed Plan of Subdivision (see Appendix 11).

To facilitate the drainage of stormwater from the development site to the existing drainage infrastructure in Chifley Road, the existing easement between Lots 1 and 2 DP 244002 (ie. to the east of the proposed detention basin) will be utilised (refer Section 2.4).



As outlined in the Bushfire Threat Assessment (see Appendix 18) and Section 4.13, Asset Protection Zones ("APZ") will need to be created in accordance with the relevant provisions of Planning for Bushfire Protection, along with requirements in Construction Levels in relation to *Australian Standard 3959 (AS 3959-1999) 'Construction of Buildings in Bushfire-Prone Areas'*. It is proposed that the establishment of the required APZ's will be the undertaken by the developer. All future maintenance will be provided for under Positive Covenants registered on the title of each affected lot. There will also be a Restriction as to user registered on the specific part of each lot that is affected by the APZ. The lots affected are identified on the Proposed Plan of Subdivision (see Appendix 11). It will therefore be up to individual landowners (rather than any management body) to be responsible for the maintenance of the APZ's and fire trail.

The proposed installation and maintenance of any rainwater tanks that form part of the stormwater management system will have provisions made under a Positive Covenant registered on each lot.

The above listed easements, positive covenants and restrictions will be created by a Section 88B Instrument under the Conveyancing Act 1919 with the registration of the plan of subdivision.

4.8 Access, Traffic and Parking

Access will be available for 15 of the proposed lots directly off the existing Chifley and Morisset Park Roads. The remaining proposed lots will have direct access to the proposed internal road network connecting to both Chifley and Morisset Park Roads. The proposed road layout is indicated on the Proposed Plan of Subdivision contained in Appendix 11.

The proposed access road off Morisset Park Road is located at a small crest providing clear visibility on either side of the proposed intersection. It is proposed that the northern side of Morisset Park Road be upgraded to provide kerb and guttering, a footpath, parallel parking and associated drainage works.

The proposed access road off Chifley Road is located approximately half way between the existing intersections of Chifley Road with Morisset Park Road and Macquarie Road. The intersection will have clear visibility in both directions. It is proposed that the western side of Chifley Road be upgraded to provide kerb and guttering, a footpath, parallel parking and associated drainage works.

The widths of the proposed roads including carriageway and pathway widths are detailed on the Proposed Plan of Subdivision contained in Appendix 11 and the Concept Road Design in Appendix 27. The 14 metre wide roads will comprise a 6 metre wide carriageway/pavement, a 3.5 metre wide nature strip on one side and a 4.5 metre wide nature strip on the other side (which will include a footpath and services). The 14.5 metre wide roads will comprise a 6 metre wide carriageway/pavement, a 4 metre wide nature strip on one side and a 4.5 metre wide nature strip on the other side (which will include a footpath and services). Both nature strips will be suitable for the planting of street trees, as detailed on the Landscape Plans in Appendix 14. All proposed kerbing is to be the standard roll-over type. The design widths are sufficient to service the proposed lots in regard to access, traffic and parking requirements and are in accordance with the guidelines of Section 2.6.3 - Road Design in DCP1 and have been discussed with Council's Subdivision Engineer, Mr Greg Field as noted in the Meeting Minutes in Appendix 34.

A detailed assessment of traffic capacity in the surrounding areas has been undertaken by Northern Transport Planning and Engineering whose report is provided in Appendix 24. The report involved an assessment of the traffic capacities of local roads Victoria Street and Baldwin Avenue, collector road, Morisset Park Road as well as the intersections of Baldwin Boulevard/Fishery Point Road, Morisset Park Road/Chifley Road and Morisset Park Road/Fishery Point Road. The assessments in the report were based upon traffic counts at the following locations;



- Fishery Point Road west of Morisset Park Road.
- Morisset Park Road west of Silky Oak Drive.
- Baldwin Boulevard south of Fishery Point Road.
- Victoria Street west of Chifley Road.

The report concluded that the existing road network can accommodate the additional traffic generated by the proposed development, and that the intersection of Baldwin Boulevard and Fishery Point Road will be able to accommodate the predicted turning movements. The Morisset Park Road and Fishery Point Road intersection will require adjustment to the existing arrangement prior to the year 2018 to accommodate future traffic flows. However, this adjustment would be required even without the proposed development.

During the construction phase of the development, activities such as construction vehicle movements and haul routes will be subject to Council's standard conditions for movements from construction sites and movement numbers (refer to Construction Management Plan in Appendix 28).

Each residential lot will be of sufficient size to ensure that off street parking can be provided as part of any future dwelling.

4.9 Stormwater Management

A Concept Stormwater Management Plan for the proposed subdivision has been prepared by Northrop Engineers and is provided in Appendix 27. The study involved hydraulic modelling of the catchments areas to determine additional runoff generated by the proposed urbanisation of the site.

This report concludes that the proposed development of the site will require a regional detention basin with a surface area of around 1,400 square metres. Stormwater will be diverted from lots and road surfaces through a pit and pipe system to a Gross Pollutant Device, prior to being discharged to the above ground detention reserve. The detention basin will then direct controlled flows through the existing services easement between Lots 1 and 2 DP 244002 to the existing drainage swale along the western side of Chifley Road.

The development of individual lots will require future landowners to seek separate DA approval from Council for dwellings. As part of this process, landowners will be required to comply with BASIX requirements and Council's DCP No. 1 including, the provision of rainwater/detention tanks. However, by providing a regional detention basin, detention on individual lots will not be required. Runoff from individual lots will be treated by stormwater tanks or other means to remove pollutants and increase water quality in accordance with Council's DCP No. 1.

The proposed stormwater drainage system will involve the construction of interallotment drainage at the rear of lots falling away from the road to convey the stormwater from future dwellings and yards towards the main system in the streets (see Section 4.9). Lots sloping towards the proposed roads will drain towards the streets, into the main system onto treatment and detention in the detention basin facility.

It is anticipated that any requirements relating to necessary standards for stormwater management, water quality and erosion and sediment control during and post construction will be satisfied with any future application for a Construction Certificate for the construction of the subdivision's infrastructure.



4.10 Road Design

A Concept Road Design has been prepared by Northrop Engineers and is included in Appendix 27. The proposed road layout is compatible with that of the surrounding development. The main access to the subdivision is gained from Chifley Road with a secondary access off Morisset Park Road. The road layout within the subdivision is a loop structure which provides good connectivity and does not include any cul-de-sacs or dead ends. The road layout also provides for the maximum retention of hollow bearing trees within the site, as well as the existing trees along the Morisset Park road reserve. The road design can be summarised as follows:

- A main entry road of 14.5 metres wide leading off Chifley Road and through the centre of the site. This entry and exit point has clear visibility in both directions along Chifley Road.
- A secondary entry road of 14.5 metres wide leading off Morisset Park Road and through the western section of the site. This secondary entry road connects with the main entry road within the site boundaries and has clear visibility in both directions along Morisset Park Road.
- An internal road network comprising interconnected roads (no cul-de-sacs) of 14 metres wide. The proposed road layout will enable the majority of lots to have a north-south orientation. The proposed subdivision layout ensures that east-west lots have sufficient widths to ensure dwellings can be located in a manner which ensures good solar access without overshadowing the lots to the south.

Details regarding the proposed carriageway and kerb widths are provided in Section 4.8 and the drawings in Appendix 11. Preliminary grading, long section and typical cross sections of these roads are also provided in Appendix 27. Longitudinal grades range from 0.5% to 10% and all roads will contain a roll kerb and gutter on either side of the carriageway. Preliminary grading of roads show minimal cut and fill batters on all roads.

4.11 Erosion and Sediment Control

A Concept Sediment and Erosion Control Plan has been prepared by Northrop Engineers and is included in Appendix 27. During earthworks and construction of infrastructure, sediment control fences will be installed and maintained to ensure that sediment is controlled within the boundaries of the site and does not have an adverse impact on adjoining properties. All excavation works will be within the confines of the site. The excavation works will not significantly alter the predominant natural landform or drainage patterns of the site.

4.12 Flora and Fauna Protection

The flora and fauna impacts of the proposed subdivision are detailed in the Ecological Assessment Report by Harper Somers O'Sullivan (see Appendix 16). The assessment makes the following recommendations:

- *Mature trees, particularly those containing hollows should be retained wherever they can be safely retained with regard to public safety. Retention of hollow-bearing trees should be exercised within development areas primarily for the benefit of M. norfolkensis, C. lathami and P. norfolcensis. This recommendation should also benefit native species in general. The importance of this recommendation should be outlined to future landowners.*
- *Where hollow-bearing trees are required to be removed within the site, a qualified ecologist is to identify and mark these trees prior to any vegetation clearing. Hollow-bearing trees are to be left standing for one night after all other vegetation is removed to allow fauna to vacate hollows. An ecologist is to guide hollow-bearing tree removal to ensure any fauna are recovered.*



- *Any future landscaping should aim to utilise locally occurring flowering/fruited native shrubs that would provide potential foraging resources for threatened species and other native species."*

It is proposed to adopt the above recommendations with an emphasis to retain a maximum number of trees. In particular, proposed Lot 3 with an area of around 9,610 square metres has been created to ensure maximum retention of the vegetation along the western boundary of the site. The retention of these trees within a larger lot has been the subject of discussions with both Department of Planning and Department of Environment and Climate Change. This will ensure the proposal only involves the removal of 7 hollow bearing trees (as shown in the Proposed Plan of Subdivision in Appendix 11 and the Plan of Trees to be Removed in Appendix 13). As suggested nesting boxes will be placed within the larger trees within Lot 3 adjoining the western boundary to be close to the existing adjoining bushland.

Consequently, the proposed subdivision will result in no significant impacts on flora or fauna.

4.13 Bushfire Management

The site contains areas of land within bushfire prone land as defined on Council's Bushfire Prone Land Map. A Bushfire Threat Assessment has been prepared by Harper Somers O'Sullivan in relation to the proposed subdivision and is included in Appendix 18. The report makes the following recommendations:

- An Asset Protection Zone ("APZ") of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) is provided between dwellings and the western boundary.
- The provision of an Asset Protection Zone of 25 metres (Inner Protection Zone of 15 metres and Outer Protection Zone of 10 metres) between the proposed dwelling on Lot 3 and the vegetation to the north.
- The provision of an Asset Protection Zone of 20 metres (Inner Protection Zone of 10 metres and Outer Protection Zone of 10 metres) between the retained vegetation on Lot 3 and the residential lots to the east (the majority of which comprises a proposed internal road of 14.5 metres).
- An APZ of 20 metres (entirely an Inner Protection Zone) is provided between dwellings and the southern boundary (This 20 metre Inner Protection Area is already established by Morisset Park Road and its associated road reserve).
- The provision of entry and exit points onto both Morisset Park Road and Chifley Road.
- The future connection of the subdivision to the existing reticulated water mains system.
- The establishment of Section 88N Restrictions as to User to ensure the design of future dwellings has regard to the specific considerations of the BCA with regard to the construction of buildings in bushfire-prone areas.
- The incorporation of an internal road network with sufficient access to all parts of the site for bushfire fighting purposes.

The subdivision design has incorporated the recommendations in regard to the provision of two entry / exit points from the subdivision, with one each on Morisset Park and Chifley Roads. The subdivision design incorporates a perimeter road with sufficient access to the entire western boundary.

It is proposed that the required APZ establishment will be the undertaken by the developer. All future maintenance will be provided for under Positive Covenants registered on the title of each affected lot (see Section 4.7). There will also be a Restriction as to user registered on this part of the land of each of the affected lots. The lots affected are identified on the Proposed Plan of Subdivision (see Appendix 11).



4.14 Landscaping

A Landscape Design Report and Landscape Concept Plans have been prepared by Terras Landscape Architects and are included in Appendix 14. This details the proposed retention of trees, the proposed street tree planting (both internal and external to the site) and the proposed entry feature off Chifley Road.

The proposed streets to the subdivision will be lined by native street trees such as *Harpullis pendula* (Tulipwood), *Flindersia australis* (Crow's Ash), *Lophostemon confertus* (Brushbox) and *Corymbia* (Summer Red). These trees perform well as street trees without the potential for high public risk and/or nuisance.

The main entry to the site is via Chifley Road with an entry feature and signage that will be readily visible to arriving residents and visitors. Materials to be used will include sandstone and timber which reflect the rural and bushland character of the area. The feature trees along the entry will be deciduous *Pyrus calleryana* 'Chanticleer' (Ornamental Pear) and will highlight the entry with a seasonal aspect. The secondary access along Morisset Park Road will not have an entry feature.

The stormwater detention area will also be landscaped with open turfed areas. Planting around the basin will include screening trees such as *Melaleuca styphelioides* (Prickly Paperbark) and *Allocasuarin littoralis* (Black She-Oak) and larger high trunk trees of *Euclyptus haemostom* (Scribbly Gum), which is native and well represented in the area.

4.15 Protection of Lake Macquarie State Conservation Area

The Lake Macquarie State Conservation Area is located to the south of the site, on the opposite side of Morisset Park Road. The Department of Environment and Climate Change ("DECC") has expressed concerns that the proposed subdivision may impact on the biodiversity values of this State Conservation Area. In this regard reference has been made to the "Guidelines for Developments Adjoining Department of Environment and Conservation Land" ("the Guidelines") prepared by the former NSW Department of Environment and Conservation (August 2006). These guidelines provide a framework to prevent adjoining development from causing any direct or indirect adverse impact on the values of land managed by DECC. The proposed development addresses the requirements of the Guidelines as follows:

- An Erosion and Sediment Control Plan has been prepared and will be implemented. This will ensure there is no detrimental change in hydrological regimes and will minimise erosion and prevention of sediment movement into the State Conservation Area during the construction and post construction phases. In particular, the site is separated from the State Conservation Area by Morisset Park Road. Furthermore, Morisset Park Road is located on the ridgeline and therefore any movement of sediment will be to the north (and not towards the State Conservation Area).
- A Stormwater Management Plan has been prepared and will be implemented. This will minimise nutrient levels and flow regime patterns and will ensure there is no impact on the State Conservation Area. In particular, the site is separated from the State Conservation Area by Morisset Park Road. Furthermore, Morisset Park Road is located on the ridgeline and therefore any movement of stormwater will be to the north (and not towards the State Conservation Area).
- There will be no edge effects on the State Conservation Area as a suitable buffer (ie. Morisset Park Road) exists between the site and the DECC estate.
- All APZ's will be located within the development zone of the site and there will be no requirement for DECC to change its fire management regime. Morisset Park Road already provides an APZ between the DECC estate and the existing residential uses on the opposite side of this road.



- No pre-construction, construction or post-construction activity will occur on the DECC estate.
- The Morisset Park Road buffer between the site and the DECC estate will ensure that there is no diminution of amenity on the State Conservation Area by way of noise, odour and air quality. In any event, the proposal comprises a residential development where these impacts are unlikely to be significant (and are already occurring with the existing suburban development in the locality).
- There will be no threats to ecological connectivity between the site and the DECC estate as Morisset Park Road already separates these parcels of land. In any event, the existing trees along the Morisset Park Road frontage of the site are to be maintained to provide a visual buffer.

It is also relevant to note that presently there are numerous existing dwellings on the northern side of Morisset Park Road opposite the State Conservation Area (see Appendix 4). These dwellings are located along both Morisset Park Road and Charles Avenue. The proposed subdivision will therefore not introduce new dwellings into an undisturbed area as it comprises an infill suburban development. As a result, any additional impacts to those that already exist are likely to be insignificant.



5. STATUTORY PLANNING PROVISIONS, POLICIES AND PLANS

5.1 Overview

This chapter sets out the existing planning framework that affects the site. In accordance with the requirements of the Director General dated 16 May 2008, this chapter:

- Demonstrates consistency of the proposal with the broader planning objectives.
- Demonstrates the permissibility of the project and consistency with statutory provisions.
- Addresses the nature and extent of variation from specified environmental planning instruments.

5.2 Commonwealth Environmental Protection and Biodiversity Conservation Act

The Commonwealth Environmental and Biodiversity Conservation Act (1999) ("EPBC Act") encompasses an assessment and approvals system for:

- Actions that have a significant impact on matters of National Environmental Significance ("NES").
- Actions that have a significant impact on the environment of Commonwealth land; and
- Actions carried out by the Commonwealth Government.

Matters of NES under the EPBC Act are:

- World Heritage Areas.
- Wetlands protected by international treaties (ie. the Ramsar Convention).
- Nationally listed threatened species and ecological communities.
- Nationally listed migratory species.
- All nuclear actions.
- The environment of Commonwealth marine areas.
- Additional matters of national significance.

An assessment of relevant matters of NES is provided in the Ecological Assessment Report prepared by Harper Somers O'Sullivan (see Appendix 16). The assessment indicates that there are no matters of NES that would be affected adversely by the proposed subdivision.

5.3 Environmental Planning and Assessment Act, 1979

The objects of the EP&A Act are set out in Clause 5. The consistency of the proposed development with these objects is dealt with in the table overleaf:



Objects of the EP&A Act	Consistency
(a) <i>to encourage:</i>	
(i) <i>the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,</i>	<p>The proposed residential subdivision will take place on land zoned for residential purposes and, as detailed in the EA, will not result in any significant adverse environmental impacts on the natural environment.</p> <p>The social and economic welfare of the community is best served by development which is permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls. This is the case with the proposed development. As detailed in Section 6.3 and Appendix 25, there will be positive social and economic impacts resulting from the proposal.</p>
(ii) <i>the promotion and co-ordination of the orderly and economic use and development of land,</i>	<p>The orderly and economic use of land is best served by development which is permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls. The development will involve a residential subdivision on land zoned for residential purposes which is a permissible use on the site. As detailed in the EA, the proposal will not result in any significant adverse environmental impacts.</p>
(iii) <i>the protection, provision and co-ordination of communication and utility services,</i>	Refer to Section 4.5 and Appendix 30.
(iv) <i>the provision of land for public purposes,</i>	N/A to the current proposal.
(v) <i>the provision and co-ordination of community services and facilities, and</i>	N/A to the current proposal.
(vi) <i>the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and</i>	As detailed in the EA, the proposal will not result in any significant adverse environmental impacts. Refer to Sections 2.14 and 4.12 and the Ecological Assessment Report in Appendix 16.
(vii) <i>ecologically sustainable development, and</i>	The proposal is consistent with ESD principles as detailed in Section 6.14.
(viii) <i>the provision and maintenance of affordable housing, and</i>	The proposed residential subdivision will create a variety a lot sizes and will enable a variety of housing types to be developed. Increasing the housing stock assists with meeting housing demand and the increasing supply in turn puts downward pressure on house prices.
(b) <i>to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and</i>	As detailed in Section 1.3 of the EA, the proposal is subject to the provisions of Part 3A of the EP&A Act where the Minister is the consent authority.
(c) <i>to provide increased opportunity for public involvement and participation in environmental planning and assessment.</i>	Any relevant public representations will need to be considered by the Department of Planning during the processing of the development application.

The EP&A Act and the Environmental Planning and Assessment Regulation 2000 (“EPAR”) have been amended to include Part 3A, which provides a streamlined assessment and approval process for development that is defined as a Major Project. Pursuant to Section 75B of the EP&A Act, Part 3A of the EP&A Act applies to:

“.....the carrying out of development that is declared under this Section to be a project to which this Part applies:

(a) by a State environmental planning policy, or

.....”



The development is declared a major project under State Environmental Planning Policy (Major Projects) and this is outlined in Section 5.4.1 of this EA.

In a letter dated 18 March 2008, the DOP confirmed that the proposal is a "Major Project" to which Part 3A of the EP&A Act applies. The Minister for Planning is the consent authority for the project.

This EA report considers the likely impact of the project on the environment and has been prepared in accordance with Clause 75(F) of the EP&A Act.

Under Clause 75(R) of the EP&A Act environmental planning instruments ("EPI's") (other than State Environmental Planning Policies) do not apply to a "Major Project". A discussion of the applicable State Environmental Planning Policies is provided below.

5.4 Relevant State Environmental Planning Policies

5.4.1 State Environmental Planning Policy (Major Projects) 2005

State Environmental Planning Policy (Major Projects) 2005 ("SEPP MP") defines certain developments that are major projects under Part 3A of the EP&A Act and lists certain State significant sites.

Pursuant to the provisions of SEPP MP the site is located within the "metropolitan coastal zone". Furthermore, the site is located within a "sensitive coastal location" pursuant to the definitions in Schedule 2. This is because a small strip of site frontage (along Morisset Park Road) is within 100m of a National Park (Lake Macquarie State Conservation Area - Morisset Site). The Lake Macquarie State Conservation Area comprises Lot 2 DP 880557 and was gazetted as a State Conservation Area on 22 January 1999. We understand that all State Recreation Areas were renamed State Conservation Areas vide legislation gazetted on 4 October 2002. This area has been mapped by Council.

Pursuant to the above, the site is subject to the provisions of Schedule 2, Clause 1(1)(j) which states the following:

- j) subdivision for residential purposes of land that is not in the metropolitan coastal zone (unless it is wholly or partly in a sensitive coastal location):*
 - (i) into more than 25 lots, or*

As the proposal comprises subdivision for residential purposes into 63 lots, the proposal is potentially a major project which would require the consent of the Minister.

Notwithstanding the above, Clause (1A) to Schedule 2 states Cl (1) (f)-(k) does not apply to development that the Minister determines is of only local environmental planning significance.

However, on 18 March 2008, the Minister determined that the proposed development was a Major Project.

5.4.2 State Environmental Planning Policy No. 19 – Bushland in Urban Areas

State Environmental Planning Policy No. 19 – Bushland in Urban Areas ("SEPP No. 19") aims to protect and preserve bushland in urban areas, including the local government area of Lake Macquarie. Pursuant to Clauses 6 and 9, SEPP No. 19 applies to the following:

- Disturbing bushland zoned or reserved for public open space purposes (Clause 6); and



- Development of land which adjoins bushland zoned or reserved for public open space purposes (Clause 9).

Bushland is defined in Clause 4(1) of SEPP No. 19 as follows:

“bushland” means land on which there is vegetation which is either a remainder of the natural vegetation of the land or, if altered, is still representative of the structure and floristics of the natural vegetation;”

Although the site accommodates “bushland”, it is not zoned or reserved for public open space and does not adjoin land zoned or reserved for public open space. As a result, SEPP No. 19 does not apply to the site. Nevertheless, as detailed in the Ecological Assessment Report in Appendix 16, a substantial number of the existing trees (including hollow-bearing trees) will be retained on the site to provide a habitat for native fauna.

5.4.3 State Environmental Planning Policy No. 44 – Koala Habitat Protection

State Environmental Planning Policy No. 44 – Koala Habitat Protection (“SEPP No. 44”) applies to the Lake Macquarie local government area and aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas. Although SEPP No. 44 does not apply to project applications made under Part 3A of the EP&A Act, the relevant matters have been considered below.

As detailed in Section 2.14.5, no Koalas were observed during the fauna survey undertaken on the site and there was no evidence of previous Koala habitation in the area. However, one Koala food tree species (*Eucalyptus haemastoma*/Scribbly Gum) listed in Schedule 2 of State Environmental Planning Policy No. 44 – Koala Habitat Protection, was observed on the site. The Scribbly Gum species was found within the Open Eucalypt Forest and the Modified Open Eucalypt Forest within the site. It occurs at a density greater than 15% within these vegetation communities and is therefore classified as “Potential Koala Habitat” pursuant to SEPP No. 44. However, searches for secondary indications of Koalas on the site, within those areas determined to be “Potential Koala Habitat”, revealed no secondary evidence of the presence of Koalas. As a result, these areas do not qualify as “Core Koala Habitat” and no further provisions of SEPP No. 44 apply to the site.

5.4.4 State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land (“SEPP No. 55”) provides a Statewide planning approach to the remediation of contaminated land. SEPP 55 requires consent authorities to consider contamination and remediation when determining applications. Although SEPP No. 55 does not apply to project applications made under Part 3A of the EP&A Act, the relevant matters have been considered below.

As detailed in Section 2.10 and the Stability Assessment and Preliminary Contamination Assessment prepared by Coffey Geosciences Pty Ltd (see Appendix 23), the history of previous uses on the site does not indicate that there was any contamination. There was also no evidence of contamination (such as odours, oily sheens, vegetation dieback or distress) observed during the walkover assessment.

Notwithstanding the above, following surface sampling at four locations across the site, the area where some burning had been undertaken (Sample S1) showed arsenic concentrations in excess of the adopted guidelines for residential sites. This sample was also found to contain elevated chromium, copper and zinc concentrations in excess of the adopted Ecological Investigation levels. Sample BH3 also contained zinc at concentrations in excess of the adopted Ecological Investigation levels.

As a result of the above, some remediation work will be required prior to the use of the site for residential purposes. Prior to this remediation work, further investigation will be required to define the vertical and lateral extent of the contamination in these areas. Any remediation works required will be undertaken pursuant to the provisions of SEPP No. 55.



5.4.5 State Environmental Planning Policy No. 71 – Coastal Protection

5.4.5.1 Overview

State Environmental Planning Policy No. 71 – Coastal Protection (“SEPP 71”) applies to land, either whole or part of, which is within the “coastal zone”. SEPP 71 applies to development applications and not project applications made pursuant to Part 3A of the EP&A Act. However, the relevant matters have been considered below.

The coastal zone is defined in the Coastal Protection Act 1979 and has been mapped for the Lake Macquarie local government area (see Appendix 5). The site falls within a “sensitive coastal location” pursuant to SEPP 71 as it is within 100 metres of land reserved or dedicated under the National Parks and Wildlife Act 1974 (clause 3), and is therefore subject to the provisions of SEPP 71. However, it is relevant to note that the site is located around 600 metres (as the crow flies) from the waters of Lake Petite (a bay within Lake Macquarie) and around 9 kilometres from the east coast of Australia (Tasman Sea). The site is therefore well removed from the coastal foreshore and the impacts associated with the coastal zone. The site is only defined as a ‘sensitive coastal location’ as part of the site is within 100m of land reserved or dedicated under the National Parks and Wildlife Act 1974 (rather than being within 100 metres of a water body).

5.4.5.2 Clause 8 - Matters for Consideration

Clause 7 of SEPP 71 states that the matters for consideration set out in clause 8 are to be taken into account by a consent authority when it determines a development application to carry out development on land to which SEPP 71 applies. The relevant matters outlined in Clause 8 have been summarised in the table below and compliance of the proposed development with these matters has been commented on accordingly:

Clause 8 Matters for Consideration	Consistent?	Comment
<i>(a) - The aims of SEPP No. 71 set out in Clause 2,</i>	Yes	The proposed development is consistent with these aims as it comprises of a development with no significant impacts on the coastal zone.
<i>(b) existing public access to and along the coastal foreshore for pedestrian or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,</i>	N/A	The site is well removed from the foreshore. The proposed development will not affect the current access for any persons to or along the foreshore.
<i>(c) opportunities to provide new public access to and along the coastal foreshore for pedestrian or persons with a disability</i>	N/A	The site is well removed from the foreshore. There are no new opportunities to create further access to the foreshore for pedestrians or persons with disabilities with this development.
<i>(d) the suitability of development given its type, location and design and its relationship with the surrounding area,</i>	Yes	As detailed in the EA, the nature and zoning of the site along with its surrounds make it suitable for the development being proposed.
<i>(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,</i>	Yes	The site is well removed from the coastal foreshore and this proposal will have no affect on the coastal foreshore. No overshadowing will be created by the proposed subdivision.
<i>(f) the scenic qualities of New South Wales coast, and means to protect and improve these qualities,</i>	Yes	The visual amenity of the coast will not be affected and the visual impact of the development from the surrounding public areas will be minimal as it will be consistent with the surrounding area. Refer to Appendix 15.
<i>(g) measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that</i>	Yes	As detailed in the Ecological Assessment Report in Appendix 16, the subdivision and proposed works will have no significant impact on the flora and fauna of the

Clause 8 Matters for Consideration	Consistent?	Comment
<i>Act), and their habitats,</i>		area. This proposal will not affect any threatened species or their habitats. A 7-part significance test was conducted on 4 threatened species that may be possibly affected by the proposed development and found that the proposal would not threaten any of the species life cycle to cause an extinction. The proposal will involve the maximum retention of the existing trees (including hollow bearing trees).
<i>(h) measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats</i>	N/A	The proposed development will not compromise the health of any marine systems in the area. Options for storm water management have been investigated and allowances made to accommodate future development (see Section 4.9 of the EA).
<i>(i) existing wildlife corridors and the impact of development on these corridors,</i>	Yes	Investigations have been undertaken in relation to the possible wildlife corridor potential of the site. The Ecological Report Pertaining to Wildlife Corridor Issues has been prepared by Harper Somers O'Sullivan (see Appendix 17). The report concludes that "the site does not form an important part of any potential wildlife corridor".
<i>(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,</i>	N/A	N/A
<i>(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,</i>	Yes	The site is well removed from the coastal foreshore. The proposal does not involve any activities nor will it lead to any activities that may lead to conflict between land and water based activities.
<i>(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals</i>	Yes	The site has been subject to detailed Aboriginal Archaeological Investigations as detailed in Section 2.15 and Appendices 19, 20, 21 and 22. No artefacts were found on site. The Koombahtoo Local Aboriginal Land Council does not object the proposed development.
<i>(m) likely impacts of development on the water quality of coastal waterbodies,</i>	Yes	The proposed development will not compromise the water quality of the coastal water body. Options for storm water management have been investigated and allowances made to accommodate the development (see Section 4.7 and Appendices 26 and 27).
<i>(n) the conservation and preservation of items of heritage, archaeological or historic significance,</i>	Yes	No items of historic significance are located on site or on any neighbouring sites (see Section 2.15).
<i>(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,</i>	N/A	N/A
<i>(p) only in cases in which a development application in relation to proposed development is determined: (i) the cumulative impacts of the proposed development on the environment, and (ii) measures to ensure that water and energy usage by the proposed development is efficient.</i>	Yes	The will be no adverse cumulative impacts on the environment as a result of this proposed subdivision. This proposal accommodates provisions for any future developments in order to ensure the water quality is maintained and energy usage is efficient by proposing an energy efficient lot layout.

5.4.5.3 Clause 14 – Public Access

Clause 14 of SEPP No. 71 states the following:



"A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impeding or diminishing, to any extent, of the physical, land-based right of access of the public to or along the coastal foreshore."

The proposed subdivision does not impede or diminish any right of access to the foreshore or coastal area surrounding this site.

5.4.5.4 Clause 16 – Stormwater

Clause 16 of SEPP No. 71 states the following:

"The consent authority must not grant consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform."

A stormwater management plan has been prepared by Northrop Engineers (Appendix 27) and provides details of stormwater quality control measures. It is relevant to note that the proposed subdivision is in excess of 600 metres from the waters of Lake Macquarie and is separated from the lake by existing roads and suburban development.

5.4.6 Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport

5.4.6.1 Overview

In 2001 the NSW Government prepared a package of planning guidelines and policies collectively known as the Integrating Land Use and Transport Policy Package ("the policy package"). The policy package has been developed with the primary aim of reducing car dependency and providing more equitable access to jobs and services.

The policy package has been prepared in order to implement strategies and achieve the aims identified in earlier strategies including Shaping Our Cities (the metropolitan planning strategy for the Greater Metropolitan Region of Sydney), Action for Air (the State government's air quality management plan), Action for Transport 2010 (the NSW transport plan), and the National Greenhouse Strategy. Further, the policy package aims to achieve a range of social, environmental and economic goals including equity, improved neighbourhood amenity and lower road congestion.

The policy package comprises the following components:

- Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport ("draft SEPP 66");
- The Right Place for Business and Services - Planning Policy ("the Planning Policy");
- Improving Transport Choice - Guidelines for planning and development ("the Guidelines"); and
- Employment and Journey to Work Patterns in the Greater Metropolitan Region – An Analysis of the 1996 Census Data.

When draft SEPP 66 is gazetted, it will become the statutory instrument through which the entire suite of documents in the policy package is given legal force. Whilst the transitional provisions establish that draft SEPP 66 does not apply to DAs already lodged, but not finally determined, at the time the draft SEPP is gazetted, draft SEPP 66 nevertheless provides a policy framework of significance for the proposed subdivision.

Clause 2 sets out the aims of draft SEPP 66 as follows:



"This policy aims to ensure that urban structure, building forms, land use locations, development designs, subdivision and street layouts help achieve the following planning objectives:

- (a) improving accessibility to housing, employment and services by walking, cycling, and public transport,*
- (b) improving the choice of transport and reducing dependence solely on cars for travel purposes,*
- (c) moderating growth in the demand for travel and the distances travelled, especially by car,*
- (d) supporting the efficient and viable operation of public transport services,*
- (e) providing for the efficient movement of freight."*

The policy package applies primarily to the Sydney Greater Metropolitan Region. Furthermore, Clause 7 of draft SEPP 66 states that it applies to, inter alia, residential subdivisions that create more than 500 lots. As a result, the provisions of draft SEPP 66 are largely irrelevant to the proposal.

Nevertheless, it is considered that the proposal is consistent with the aims and objectives of the policy package as it will involve the development of land that already forms part of an existing suburban area that is in close proximity to an existing centre. The site is close to public transport services and the development will assist in reducing car dependency and providing additional support for these public transport services.

5.4.7 NSW Coastal Policy 1997

The NSW Coastal Policy 1997 ("Coastal Policy") brings together many individual policies to create a new coordinated management system to protect the coast. The Coastal Policy applies to the Coastal Zone which has been mapped by Lake Macquarie Council and includes the site (see Appendix 5).

The Coastal Policy is essentially focussed on recognising the need to reconcile the rapid population growth currently being experienced in coastal areas with the need to conserve what remains of valuable ecosystems. Implementation of the goals and objectives of the Coastal Policy is through the strategic actions identified in Appendix B of the Policy. These strategic actions primarily involve direction to State agencies and local government in the carrying out of their established functions. Of particular relevance is the requirement of agencies and Councils to assess the impacts of development proposals pursuant to the goals and objectives of the coastal policy and in particular the following:

- The protection, rehabilitation and improvement of the natural environment.
- To recognize and accommodate natural processes and climate change.
- To protect and enhance the aesthetic qualities of the coastal zone.
- To protect and conserve cultural heritage.
- To promote ESD and use of resources.
- To provide for appropriate public access and use.

The proposal has considered each of the above goals to create a subdivision that provides for sustainable human settlement and development. The proposal:

- Is consistent with the zoning of the land and the strategic framework for the residential development of Morisset Park.
- Has been designed in consideration of the ecological features of the site, the potential for Aboriginal significance and the existing capacity of infrastructure and road network.



- Has been designed to incorporate bushfire asset protection zones to safeguard life and property.
- Incorporates tree retention and landscaping to contribute to the aesthetics and visual qualities of the area.
- Incorporates best practice stormwater management by providing detention basin stormwater controls, provision for future rainwater tanks and water quality control devices.
- Is a suburban infill development within an established suburban area which has existing links to services, including public transport.

With regard to these goals, it is relevant to note that many of the strategic actions formulated in the Coastal Policy, are the responsibility of Council to implement when pursuing the rezoning of the land (through Section 117 Directions). These were therefore addressed in the recent rezoning of the site (see Section 1.2 and Appendix 32).

The key principles, goals, objectives and strategic actions outlined in the Coastal Policy will not be undermined by the development. It provides for residential subdivision of a parcel of infill land while protecting important and sensitive coastal environments.

5.4.8 Coastal Design Guidelines for NSW

The Coastal Design Guidelines for NSW were prepared by the Coastal Council of NSW, Urban Design Advisory Service and Tourism New South Wales in 2003 to provide design principles for coastal developments. These guidelines are divided into the following three parts:

1. Part 1 deals with determining a hierarchy of settlements and the identification of settlement types at both a regional and local level. This hierarchy ranges from coastal cities to isolated coastal dwellings.

The site is removed from the coast and forms part of the suburb of Morisset Park (which in turn is in close proximity to the neighbourhood centre of Bonnells Bay and the town centre of Morisset). As a result, it is most likely defined as forming part of an "Inland Coastal Centre" pursuant to the Guidelines. A typical inland coastal centre is described as follows:

"Inland coastal centres are generally typified by their location on a flat site within the centre backing onto a river."

Inland coastal centres are described as providing sustainable growth by accommodating growth impacts on the coast and taking pressure off more sensitive coastal locations.

2. Part 2 provides design principles for coastal settlements and also provides relevant case studies. The five principles are as follows:
 - Principle 1: Defining the footprint and boundary of the settlement.
 - Principle 2: Connecting open spaces.
 - Principle 3: Protecting the natural edges.
 - Principle 4: Reinforcing the street pattern.
 - Principle 5: Appropriate buildings in a coastal context.

In relation to Principles 1 and 2, the footprint/boundary and connection to existing open spaces has been defined by Council through the rezoning of the site 2(1) Residential in 2007. The site is bounded by roads and existing



development. The site continues to have links to surrounding open spaces, including the Conservation Area on the opposite side of Morisset Park Road.

Principle 3 has similarly been defined by the rezoning of the land. The site comprises a suburban infill site.

Principle 4 has been satisfied by designing the internal road network to be consistent with the existing road network into which it links. This has been achieved through compliance with Council's Development Control Plan No. 1 – Principles of Development. The resultant traffic generated from the proposed residential streets is within the environmental capacity of the existing road network. The street pattern is an extension of the existing Chifley Road to the east.

The subdivision provides residential lots of a size that will ensure future dwellings can satisfy Principle 5. The future development is likely to result in a mix of 1 and 2 storey detached dwellings in accordance with the Council's planning controls (see Section 4.4).

5.5 Relevant Regional Environmental Plans and Strategies

5.5.1 Overview

Regional environmental plans and strategies that apply to the site but do not limit development in a Part 3A application pursuant to Section 75R of the EP&A Act, have been identified below.

5.5.2 Hunter Regional Environmental Plan 1989

5.5.2.1 Overview

The Hunter Regional Environmental Plan 1989 ("Hunter REP") applies to the upper, lower and northern Hunter sub-regions and includes the Lake Macquarie local government area (located in the lower Hunter sub-region).

The Hunter REP has a regional focus and includes:

- Objectives for the future planning and development of the Hunter region.
- Regional policies to guide the preparation of local environmental plans and development control plans.
- Regional policies to control development and activities in the region.
- Principles relating to the future needs of the region, future development opportunities and requirements.
- Principles directing the manner in which the effects of growth and change are to be managed.
- Policies to provide comprehensively for the development of certain land which is of regional significance.

The proposed residential subdivision will be a relatively minor development in the context of the Hunter region. Notwithstanding, the relevant provisions of the Hunter REP are dealt with below.

5.5.2.2 Part 1 - Aims of the Hunter Regional Environmental Plan 1989

Clause 2(1) sets out the aims of this REP as follows:

"(1) The aims of this plan are:

- (a) to promote the balanced development of the region, the improvement of its urban and rural environments and the orderly and economic development and optimum use of its land and other resources, consistent with conservation of natural and*



man made features and so as to meet the needs and aspirations of the community,

- (b) to co-ordinate activities related to development in the region so there is optimum social and economic benefit to the community, and*
- (c) to continue a regional planning process that will serve as a framework for identifying priorities for further investigations to be carried out by the Department and other agencies."*

As detailed elsewhere in this report, the proposal will facilitate the orderly expansion of the Windermere Park residential area onto adjacent land that is already developed and disturbed. It will provide positive benefits to the existing community through, inter alia, the improved support of businesses, community services and public transport in the nearby centres of Bonnells Bay and Morisset. It will also increase the diversity of housing available in the area. It will not result in any significant adverse impacts upon the natural environment or scenic quality of the locality. The site has also been found to be suitable for the development proposed, as detailed in Section 2.

It is therefore considered that the proposal is entirely consistent with the aims of the Hunter REP.

5.5.2.3 Part 2 – Social Development

Part 2 of the Hunter REP deals with Social Development and Division 1 of Part 2 deals with housing. Clause 8 of the Hunter REP outlines the objectives in relation to housing as follows:

"8 Objectives

The objectives of this plan in relation to planning strategies concerning housing are:

- (a) to provide opportunities for adequate provision of secure, appropriate and affordable housing in a variety of types and tenures for all income groups throughout the region, and*
- (b) to ensure that the design and siting of residential development meets community needs, minimises impact on the natural environment and involves the quality of the region's built environment."*

Clause 10 sets out the policies for controlling development pursuant to the above objective and states the following:

"Councils should not consent to development for residential or rural residential purposes, or for caravan parks, unless they have made an assessment of the need for health, education and welfare facilities and services and the availability of existing facilities and services to serve additional residents."

Details in this regard are provided in the Social Impact Assessment in Appendix 25, particularly in Section 6. In general the schools within the area are operating below their maximum enrolment levels and have the capacity to accommodate additional pupils. This is also true with respect to community and youth facilities (such as the Southlakes Neighbourhood Centre and the new Morisset Multipurpose Centre.) However, health services, child care services and aged care services are generally stretched to the limit. This is an existing situation that is common throughout the Lake Macquarie local government area and the State. This is not a situation that will be created by the proposed development.

Notwithstanding the above, it is relevant to note that the site is in within 2-3 kilometres of the following health, education and community facilities:

- Morisset Hospital.

- St John of God Special School.
- Henry Kendall Bayside Retirement Village.
- Bay Village Estate Retirement Village.
- Bonnells Bay Primary School.
- South Lakes Neighbourhood Centre and Youth Centre.
- Various child care centres (including Morisset Children's Centre and Mirrerview Childcare Centre).
- Bonnells Bay Shopping Centre.
- Bonnells Bay Surgery.
- The town centre of Morisset (which has a range of health, education and community facilities).

The site is also around 3.5 kilometres from the Morisset train station which facilitates access to a wide range of health, education and community facilities within the Hunter, Central Coast and Sydney metropolitan regions.

It is also relevant to note that the development of the site will generate the payment of Section 94 contributions (which equate to around \$17,000 per lot) to Council which in turn will be used to upgrade and maintain existing community facilities within the local government area. The proposed increase in the population of Morisset Park will also assist in ensuring the long term viability of the existing health, education and community facilities in the locality.

5.5.2.4 Part 4 – Land Use and Settlement

Part 4 of the Hunter REP deals with Land Use and Settlement. Division 2 of Part 4 of the Hunter REP deals with "urban land", however, "urban land" is not defined in the Hunter REP.

Clause 29 outlines the objectives in relation to urban land as follows:

"29 Objectives

The objective of this plan in relation to planning strategies concerning urban land is to provide for sufficient urban land to meet anticipated growth in an orderly and efficient manner, having regard to:

- (a) constraints of the natural environment,*
- (b) urban capability of the land as defined by the Soil Conservation Service,*
- (c) supply and demand for land for all urban purposes,*
- (d) availability and cost of public utility services,*
- (e) access to employment and commercial and community facilities, and*
- (f) provision of a choice of locations and development types."*

It is considered that the proposed residential subdivision will be consistent with the above objectives for the following reasons:

- The proposal will facilitate the orderly and logical expansion of the Windermere Park settlement and will provide sufficient residential land to meet the anticipated demand.
- As detailed in Section 2, the constraints of the natural environment are understood and will not pose any significant constraints to the development of the site.



- The urban capability of the site has been assessed as being suitable and all services will be able to be provided to any future development.
- The site is in close proximity to the existing centres of Morisset and Bonnells Bay and the various employment, commercial and community facilities that these centres have to offer. The site is also around 3.5 kilometres from the Morisset train station.
- The proposal will offer a choice of residential locations and development types within the region. No significant change to the character of the area will occur as a result of the development, primarily as the site is already disturbed and developed.

As a result, it is considered that the proposal will be consistent with the objectives for urban land.

5.5.2.5 Part 7 – Environmental Protection

Part 7 of the Hunter REP deals with Environment Protection and Division 1 of Part 7 deals with pollution control. Clause 45 of the Hunter REP outlines the objectives in relation to pollution control as follows:

“45 Objective

The objective of this plan in relation to planning strategies concerning pollution control is to control development so as to minimise air, noise and water pollution.”

Clause 47 sets out the policies for controlling development pursuant to the above objective. Clause 47(2) is relevant to the proposed development and states the following:

“(2) A council should not grant consent to any development unless it is satisfied that:

- (a) there is adequate provision for setbacks between the development and existing watercourses,**
- (b) an adequate vegetation cover is maintained or reinstated so as to minimise soil erosion,**
- (c) where necessary, adequate retardation basins, grassed floodways, sedimentation pits and trash collection facilities are established and maintained, and**
- (d) adequate measures are provided to control soil erosion during construction of the development.”**

Details in this regard are provided in Sections 4.9 and 4.11. It is considered that the proposed pollution control measures and the conditions of consent that will be imposed by the consent authority in any granting of consent will ensure consistency with the above objective.

The site is well removed from waterways in the area and any future development will ensure that mechanisms are put in place to protect waterways. Details in this regard are provided in the Stormwater Management and Sediment and Erosion Control Plans in Appendix 27.

Division 3 of Part 7 of the Hunter REP deals with environmental hazards and Clause 52 outlines the objectives in relation to environmental hazards as follows:

“52 Objectives

The objectives of this plan relating to planning strategies concerning environmental hazards are to:

- (a) minimise the effects of soil erosion and land slip,**



- (b) *control developments on flood liable lands and encourage flood plain management practices which ensure maximum personal safety and appropriate land uses,*
- (c) *control development so as to minimise the dangers of coastal erosion and storm damage,*
- (d) *minimise the dangers of bushfires to all forms of development, especially residential development in fire prone areas, and*
- (e) *minimise the danger of mine subsidence to all forms of development."*

It is considered that the proposed development is consistent with these objectives for the following reasons:

- The effects of soil erosion and land slip will be minimised as detailed in the Preliminary Geotechnical Investigation in Appendix 23 and Section 2.9.3.
- The site does not comprise flood liable land.
- The site is not affected by coastal erosion or coastal storms.
- The site is affected by nearby bushfire prone land, however, this risk will be managed in accordance with the recommendations of the Bushfire Threat Assessment in Appendix 18 and Section 4.13.
- The site is located within a mine subsidence area, however, approval has already been granted by the MSB (Appendix 31).

Clause 53 sets out the policies for controlling development pursuant to the above objective. Clause 53(1) is particularly relevant to the proposed development and states the following:

"53 Policies for plan preparation and control of development

- (1) *In preparing draft local environmental plans or determining applications for consent to development for urban, tourist or rural residential purposes, councils should consider the likelihood of erosion, land slip, flooding, coastal erosion or storm damage, bushfire hazards, mine subsidence and cumulative catchment-wide impacts, together with the means of controlling and managing such impacts."*

The matters relevant to this development have been considered elsewhere in this EA (particularly Section 2) and the specialist reports contained in the various Appendices. It is considered that the site is eminently suitable for a low-density form of residential development and that existing environmental hazards will be able to be managed accordingly.

5.5.2.6 Part 8 – Conservation and Recreation

Part 8 of the Hunter REP deals with Conservation and Recreation and Division 1 of Part 8 deals with natural areas. Clause 59 of the Hunter REP outlines the objectives in relation to natural areas as follows:

"59 Objectives

The objectives of this plan in relation to planning strategies concerning natural areas are to:

- (a) *protect natural areas of geological, ecological or scenic interest such as important forests, bushlands, wetlands, rivers, estuaries, lakes, beach and dune systems, headlands, mountain ridges and escarpments,*
- (b) *strictly control any reduction in the extent of important natural areas, especially important habitats such as natural wetlands,*



- (c) *protect and preserve bushland within larger urban areas because of its natural, aesthetic, recreational, educational, scientific, soil conservation and habitat values, and*
- (d) *improve the aesthetic appeal and image of the region where possible and preserve existing amenity."*

The proposal is consistent with the above objectives for the following reasons:

- The site does not comprise any natural area pursuant to the provisions and definitions of the Hunter REP.
- The site does not accommodate any important natural area or important habitat (see Ecological Assessment Report in Appendix 16).
- As detailed in Section 4.12, the Ecological Assessment Report in Appendix 16 and the Plan of Trees to be Retained in Appendix 12, a significant number of the existing trees (including habitat trees) on the site will be retained to ensure the habitat value of the bushland on the site is retained.
- The land is developed for residential purposes and is adjacent to the suburban area of Windermere Park. The residential development of the land will preserve the existing amenity and residential character of the area.

The proposed residential subdivision will not alter or remove existing environmental protection zonings. The site also does not comprise an important wetland, forest, water catchment area, scenic and historic landscape, escarpment and foreshore area, archaeological, historic or scientific site.

5.5.3 Hunter Coastal Urban Settlement Strategy

The Hunter Coastal Urban Settlement Strategy ("HCUSS") was prepared in 1994 to guide growth within the Hunter coastal area over the next 20 years. This site falls within this Hunter coastal area.

The HCUSS states that the Hunter coastal area provides the opportunity to accommodate projected population growth to the year 2016 and beyond. The site is identified as a "Potential Urban Area" in the HCUSS and the HCUSS identifies an increasing demand for residential development within this coastal area. The main findings of the HCUSS in relation to the demand for residential land can be summarised as follows:

- The City of Lake Macquarie has the largest population within the coastal area of the Hunter which is projected to grow to between 202,600 and 212,900 by 2016.
- The Lake Macquarie area presents ongoing opportunities for urban settlement. The Lower Hunter Housing Market Study (1993) indicates that since 1981 there has been a sharp increase in the rate of movement to the region from Sydney and other parts of the State and that this growth is strongest within the coastal areas.
- A large number of sites identified in the Hunter REP 1989 and the HCUSS as "potential urban land" cannot be developed in the near future due to underground coal mining activities, however, the demand for housing within the coastal zone continues to increase.
- Within the Hunter coastal area, more dwellings are built relative to population growth than in Sydney, primarily due to the demand for holiday houses and a higher rate of household formation.
- The increase in the demand for housing is not only driven by an increasing population but by factors such as an increase in one parent plus dependants households, a decrease in traditional nuclear families, an increase in lone person households and an increase in couples only households. As the rate of household formation within the coastal region is increasing more rapidly than the growth of population, there are significant demands for housing and services (even where the population growth may be slowing due to increasing numbers of people over 55 years).



The HCUSS aims to accommodate the increased demand for residential land in an environmentally and economically acceptable manner in order to retain or improve the quality of the coastal region. It is considered that the proposed residential subdivision will be consistent with the relevant provisions of the HCUSS in that it will assist in meeting the increasing demand for residential land without the disturbance of environmentally sensitive greenfield sites. The proposal will facilitate the natural extension of an existing settlement and will ensure that new residential development takes place within close proximity to an existing centre on land that is serviced, identified in the HCUSS as being potential urban land and in close proximity to all necessary support services.

5.5.4 Lower Hunter Housing Market Study

The Lower Hunter Housing Market Study (1993) identifies the Lower Hunter sub-region (the local government areas of Newcastle, Lake Macquarie, Cessnock, Maitland and Port Stephens) as the key to accommodating some of the growth of the expansion of the Sydney Region. This study consists of the following three sections:

- An analysis of the Lower Hunter housing market.
- An examination of the links between the Sydney and Lower Hunter housing markets.
- An assessment of the planning implications and strategy options which would need to be considered.

The site at Morisset Park is identified within the study as having the potential to accommodate future residential development. The main findings of the study that are relevant to the proposed residential subdivision can be summarised as follows:

- The lower Hunter region had the environmental capacity in 1993 to accommodate an additional population of between 500,000 and 700,000 up until 2016.
- There will generally be higher population gains and demand for residential land within the coastal areas, including areas such as Morisset Park.
- The ageing of the population and the demand for foreshore locations is likely to increase the demand for medium density housing, aged persons units and retirement homes. However, the importance of lifestyle in the lower Hunter region will maintain the demand for larger allotments in rural areas.
- The availability of land for new housing within the Lake Macquarie local government area is primarily along the Newcastle – Central Coast – Sydney urban corridor (which includes the site and Morisset).
- An additional population of 700,000 within the lower Hunter region would require the development of new areas (in addition to the Urban Development Program areas, established areas, investigation areas and rural areas).

The Lower Hunter Housing Market Study (1993) clearly identifies the need for additional residential land along the Newcastle – Central Coast – Sydney urban corridor, which includes the site and the centre of Morisset. It is considered that the proposed residential subdivision will be entirely consistent with the relevant provisions of this study, particularly as the site was specifically identified in this study as having the potential for residential development.

5.5.5 Lower Hunter Regional Strategy

The Department of Planning prepared the Lower Hunter Strategy (“the Strategy”) in October 2006. The Strategy was identified as a priority action as part of the Greater Sydney Metropolitan Strategy of which a key focus is to strengthen the Lower Hunter and Illawarra regions. Lake Macquarie comprises a key element of the Lower Hunter Region.



Morisset is identified as an “Emerging Major Regional Centre in the Strategy. The site is identified as part of the “existing urban area” in the Strategy.

5.6 Local Plans and Policies

5.6.1 Overview

Local plans and policies that apply to the site, but that do not limit development in a Part 3A application pursuant to Section 75R of the EP&A Act, have been identified below.

5.6.2 Lake Macquarie Local Environmental Plan 2004

5.6.2.1 Zoning and Permissibility

The site is zoned 2(1) Residential as per the provisions of LEP 2004.

Clause 16(b) of LEP 2004 states that consent must not be granted for development unless the consent authority is satisfied the development being proposed is consistent with the relevant objectives for that zone. These matters are addressed below.

5.6.2.2 Clause 15 - Objectives of the 2(1) Residential Zone

Clause 15 of LEP 2004 states the objectives of the 2(1) Residential Zone as follows:

- (a) permit development of neighbourhoods of low-density housing, and*
- (b) provide for general stores, community service activities or development that includes home businesses whilst maintaining and enhancing the residential amenity of the surrounding area, and*
- (c) ensure that housing development respects the character of surrounding development and is of good quality design, and*
- (d) provide for sustainable water cycle management.”*

The Proposed Plan of Subdivision (see Appendix 11) involves the subdivision of land zoned 2(1) Residential into 62 residential lots ranging in area between around 570 square metres and 9,610 square metres. The proposed subdivision allows for future low density housing which is consistent with the existing adjoining residential development within Morisset Park and Windermere Park. The proposal will permit development of a neighbourhood of low density housing that provides for sustainable water cycle management (see Appendix 27). The proposed lots will ensure future dwellings can be developed in accordance with Council’s controls to ensure good quality design that respects the character of the surrounding residential area (see Section 4.4).

5.6.2.3 Clause 16 – Lifestyle 2020 Strategy

Clause 16(a) of LEP 2004 states that consent must not be granted for development unless the consent authority is satisfied it is consistent with the vision, values and aims for the Lifestyle 2020 Strategy. This matter is dealt with in Section 5.6.5.

5.6.2.4 Clause 17 – Provision of Essential Infrastructure

Clause 17(a) of LEP 2004 states consent must not be granted for development of any land unless the consent authority is satisfied that adequate arrangements have been made for the provisions of essential infrastructure to the development including water supply, energy, sewage and telecommunications.



Clause 17(b) requires the consent authority to consider the impacts of the provisions for infrastructure on the land being developed.

As detailed in Section 4.5 and Appendix 30, the relevant authorities responsible for the utility services have advised that all services required by the development can be either extended or upgraded to service the needs of the proposed subdivision. Generally water, electricity and communication services will be provided along the road frontage of a lot with a sewer connection available at the lowest point within a lot.

5.6.2.5 Clause 24 - Subdivision

Clause 24(2) of LEP 2004 states that land in any zone can be subdivided provided the consent authority is satisfied:

- "(a) that the resulting lots will conform to the requirements in Schedule 2 (Subdivision Standards) applicable to subdivision in that zone, and*
- (b) the resulting lots can be developed in accordance with this plan."*

The proposed residential development as shown in the Proposed Plan of Subdivision (see Appendix 11) has been designed in accordance with the objectives of the 2(1) Residential Zoning and the requirements of Schedule 2 as shown in the table below.

Zone	Subdivision Standard	Compliance	Comment
2(1) Residential	(Subdivisions creating 10 or more lots are to provide a minimum of 20% of all lots to be standard lots and 10% of all lots are to be small lot housing).	Yes.	The lots have been designed with sufficient size to accommodate future dual occupancy dwellings (small lot housing) if required.
Dwelling-house not included in small lot housing or dual occupancy – detached.	For standard (rectangular) lots, a minimum lot size of 450m ² applies and a minimum road frontage of 14 metres applies.	Yes	All proposed lots are 450m ² or greater with frontages in excess of 14 metres. More than 20% of the proposed lots are standard lots.
	For corner lots a 600m ² minimum lot size and 18 metre principle road frontage and width of the allotment applies.	Yes	All proposed corners lots are in excess of 600m ² and have frontages and widths in excess of 18 metres.
	For irregular lots a minimum lot size of 450m ² applies with a 14 metre minimum road frontage.	Yes	All irregular lots have areas and street frontages in excess of 14 metres.
	For battleaxe lots a 600m ² lot size and minimum 4 metre wide access handle applies.	N/A	N/A
Small lot housing	≥250m ² and <450m ² (frontage not specified)	Yes	The lots have been designed with sufficient size to accommodate future dual occupancy developments and subdivision within the specified areas (250m ² to 450m ²).



5.6.2.6 Clause 25 - Demolition

Clause 25 of LEP 2004 states the demolition of a dwelling requires development consent. As detailed in Section 2.11 there are two existing dwellings with associated sheds upon the site. These improvements are to be demolished in accordance with Australian Standard AS 2601-2001, *Demolition of Structure* with no explosive methods to be used. The demolition does not include any heritage items pursuant to LEP 2004 nor is it adjacent to any heritage item.

5.6.2.7 Clause 30 - Control of Pollution

Clause 30 of LEP 2004 states that consent must not be granted for development unless the consent authority is satisfied that all reasonable and practical control measures are implemented to minimise pollution likely to arise from carrying out the development.

It is anticipated that restrictions will be placed upon noise, water and air (dust) pollution during the construction of the development and will be enforced by Council's supervising officer to ensure compliance.

5.6.2.8 Clause 31 - Erosion and Sediment Control

Clause 31 of LEP 2004 applies to development that gives rise to the exposure of the surface soil of land to the action of wind or water, caused by earthworks, the removal of vegetation or development in general. Clause 31(2)(a) requires the Council to be satisfied that all reasonable and practicable control measures will be carried out to prevent or minimise the effects of erosion and sediment.

Clauses 31(2)(b) and (c) provide specific requirements relating to developments where the area of soil surface exposure will be greater than 250 and 2,500 square metres respectively.

As detailed in Section 4.11 and Appendix 27, an Erosion and Sediment Control Plan in accordance with Council requirements has been prepared and will be implemented prior to any work commencing on the site. This will involve the use of reasonable measures to control erosion and sediments within the development zone, including but not limited to the installation of sediment control fences. Measures will be undertaken to minimise any potential erosion and sediment issues that might occur as a result of this proposal.

5.6.2.9 Clause 33 - Bush Fire Prone Land

Clause 33 states that before granting consent to development on bushfire prone land, the consent authority must have regard to the relevant provisions of the State Government's document entitled *Planning for Bushfire Protection 2006*. As detailed in Section 2.16 and Appendix 6, the site is identified as bushfire prone land on Council's Bushfire Prone Land Map. As required, a Bushfire Threat Assessment has been undertaken by Harper Somers O'Sullivan (refer Appendix 18) and the recommendations of this assessment have been included in the Proposed Plan of Subdivision (Appendix 11).

5.6.2.10 Clause 34 - Trees and Native Vegetation

Clause 34 of LEP 34 relates to all land with the exception of State Forest, Crown-timbered lands and National Park. The Clause 34(2) states that the clearing of any tree or native vegetation must be done in accordance with development consent. Furthermore, Clause 34(4) requires the consent authority to consider a Statement of Environmental Effects that accesses the proposed clearing in respect to the following:

- (a) soil stability and prevention of land degradation, and*
- (b) water quality and associated ecosystems such as streams, rivers, waterbodies or waterways, and*
- (c) scenic or environmental amenity, and*



(d) *vegetation species, communities and natural wildlife habitats."*

With regard to the above, it is relevant to note the following:

- The stability of the soil will be maintained throughout the construction phase of the proposed development through the use of sediment control devices, back blading, revegetation and reseedling of the affected areas. The future residential development upon the resulting lots comprising dwellings, landscaping, lawns and gardens should prevent land degradation.
- Water quality on site and adjoining waterways and waterbodies will be addressed by implementing sound sediment and erosion control measures during the site clearing and construction phase. Revegetation of the site and the adoption of Water Sensitive Urban Design as proposed by Northrop Engineers (see Appendix 27) will result in the adequate treatment of stormwater.
- As outlined in Section 2.12 the site is classed in the Scenic Management Zone C pursuant to Council's Scenic Quality Guidelines (2004). Such zones are defined as areas of moderate or low scenic quality. Any removal of trees or native vegetation adversely affecting the scenic or environmental amenity will be counteracted by landscaping the streets and lots with vegetation that is consistent with the locally occurring fruiting and flowering species. With the site being of a highly disturbed nature, the implementation of the above mentioned landscaping in conjunction with any future residential development should enhance and improve the scenic and environmental amenity of the site in relation to the surrounding land use. Further details are provided in the Visual Impact Statement in Appendix 15.
- The remaining Open Eucalypt Forest communities represented on site are highly modified and are not considered to have any significant conservation value. No threatened species were found on site and it is not considered that habitat for any known threatened flora species exist on the site. Although the site could provide suitable habitat for a range of native fauna particularly in the Open Eucalypt Forests, these wildlife habitats on site are common to the local area and are abundant throughout the region. The removal of these trees and vegetation will not have a significant adverse effect on the local wildlife habitats. Notwithstanding, a substantial number of existing trees within proposed Lot 3 will be retained on the site. Furthermore, there are hollow bearing trees which provide nesting or roosting for hollow-dependant birds and mammals of which the majority will be retained as shown on the Proposed Plan of Subdivision in Appendix 11. The placing of nesting boxes, the relocation of removed hollows and landscaping with local native fruit and flowering species will create additional natural wildlife habitat.

5.6.2.11 Clause 50 - Development affecting places or sites of known or potential Aboriginal heritage significance.

Clause 50(1) states that the consent authority must not grant consent for the development that is likely to have an impact on a place of Aboriginal heritage significance or a potential place of Aboriginal heritage significance, or that will be carried on a site of a relic that has Aboriginal heritage significance, unless the consent authority has considered a heritage impact statement detailing how the proposed development would affect the place or relic of significance.

As detailed in Section 2.15 and Appendices 19, 20, 21 and 22, detailed Aboriginal Archaeological Surveys and Community Consultation have been undertaken on the site and no artefacts have been found. The Koombahtoo Local Aboriginal Land Council has no objection to the proposed development of the site.

5.6.2.12 Clause 60 - Development on land adjoining Zones 5, 7(1) and 8

Clause 60(1) states that the consent authority must not grant consent for development of land adjoining land zoned 5 Infrastructure unless it is satisfied that the proposed development is consistent with the efficient operation of the potential or existing infrastructure development within the zone.



The land zoned 5 Infrastructure adjoining the site along the Chifley Road frontage was dedicated as public reserve with registration of D.P.244002. The land is classified as Community rather than Operational in accordance with Sections 25 & 26 of the Local Government Act 1993 ("LG Act"). Being Community Land, the land cannot be sold or disposed of by Council in accordance with Section 45 of the LG Act. Furthermore the land being a Natural Area has been categorised as "bushland" in accordance with Section 36(5) of the LG Act.

The proposal will not involve any works upon the land zoned 5 Infrastructure nor will the proposal compromise the land in any way in relation to its Community classification nor potential operation of any future infrastructure development.

It is also understood that this land is in the process of being reclassified and rezoned for residential purposes by Council.

Clause 60(3) states that the consent authority must not grant consent for development of land adjoining or adjacent land zoned 8 National Park, unless the consent authority has sent a copy to the development application to the Director-General of the Department of Environment and Conservation and has considered any response received from the Director-General within 28 days of sending a copy. The site is located to the north of Lake Macquarie State Conservation Area which is zoned 8 National Park (see Section 3.1.4). Referral to the Director General is not required under Part 3A of the EP&A Act, however, full consideration has been given to any potential impact on the land to the south of the site, as detailed in Section 4.15.

5.6.3 Lake Macquarie Development Control Plan No. 1 – Principles of Development

DCP 1 provides guidance to the development of land under LEP 2004 and is intended to act as an integrated planning document in conjunction with LEP 2004. The primary objective of DCP 1 is to implement the Lifestyle 2020 Strategy by facilitating Ecologically Sustainable Development (see Section 5.6.5). DCP 1 adopts a performance approach to managing development and is represented in the following 3 key components:

- Intent Statements - outlining the underlying purpose of the Council requirements.
- Performance Criteria - detailing what outcomes need to be met to achieve the intent.
- Acceptable Solutions - the means, recommended by Council, of satisfying the performance criteria.

In addition, DCP 1 includes Area Plans which provide detailed place-specific requirements with statements of Desired Future Character and specific design advice. However, no such Area Plan has been prepared for Morisset Park.

DCP 1 is an extensive document, parts of which will be relevant to any future residential development of the site. DCP 1 provides detailed planning guidelines which development proposals should comply with, the relevant provisions of which have been dealt with in the table overleaf.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
Section 2.1 – Environmental Responsibility & Land Capability				
2.1.1 – Ecological Values	To conserve the biodiversity of the City and the Region	<p>P.1 – Impacts on native fauna and flora is avoided and minimised.</p> <p>P.2 – Native Ecological Assessment Reports are conducted with sufficient detail.</p>	<p>A.1 – Development is located and designed to avoid or minimise impacts on native vegetation.</p> <p>A2.1 – Ecological Assessment Reports are prepared and lodged in accordance with Council’s guidelines.</p> <p>A2.2 – When native vegetation or fauna habitat is to be affected, the Ecological Assessment Report must address Section 5A of the Act .</p> <p>A2.3 – The Ecological Assessment Report and the “Significance Test” is sufficient to determine whether there is likely to be a significant affect on threatened species, populations or ecological communities or their habitats.</p> <p>A2.7 – All impacts of the proposed development are detailed on a Site Development Plan and assessed by the Ecological Assessment Report.</p>	<p>Yes.</p> <p>Refer to Ecological Assessment Report in Appendix 16 and Sections 2.14 and 4.12.</p>
		<p>P7. – Significant habitat in and around the site is protected from external influences.</p>	<p>A7.1 – The development is designed to respect and address the areas to be maintained in their natural condition.</p> <p>A7.2 – A suitable buffer is established between development and areas of significant habitat.</p> <p>A7.4 – Buildings/structures, roads, driveways, parking, fences, infrastructure, drainage, bushfire APZ’s, etc are located outside significant habitat areas.</p> <p>A7.6 – Measures are taken to define the physical footprint of the development to make</p>	<p>Yes.</p> <p>Refer to Ecological Assessment Report in Appendix 16 and Sections 2.14 and 4.12. Refer to Bushfire Threat Assessment in Appendix 18 and Section 4.13.</p>



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
			ongoing maintenance efficient and to prevent introduced species.	
2.1.3 – Scenic Values	To protect and maintain scenic values in the local government area, whether being viewed by land or water.	The Scenic Zone Maps in DCP 1 identify the site within Zone C which is defined as follows: <i>“Zone C – Is assigned to areas of moderate to low scenic quality and where the landscape values, while not making a significant contribution to the City’s image and attractiveness, do not detract significantly from that image or amenity.”</i> Performance Criteria P1.1 requires development to complement rather than detract from the landscape. Performance Criteria P1.2 requires development visible from/adjoining Lake Macquarie to maintain/enhance the scenic value of these features.	A1.1 - In Zones A & B, a Visual Impact Statement is prepared in accordance with the Lake Macquarie Scenic Quality Guidelines (2004) that assesses the impact of development and illustrates how any impact will be ameliorated.	Yes. The site is located within Scenic Management Zone C. Refer to Visual Impact Statement in Appendix 15.
2.1.4 – Tree Preservation and Management	To maintain a “green” city by protecting native and culturally significant vegetation, bushland and understorey.	P.1 – Development maintains or enhances natural bushland character; trees or group of trees that have natural heritage significance; streetscape values; riparian and littoral vegetation; ecological corridors; ecological habitat; significant species.	A1.2 – Methods for protecting native vegetation or significant trees from development impacts are specified. A1.3 – Habitat trees are examined by a suitably qualified flora and fauna specialist. A1.4 – Where it is not possible to avoid the clearing of a habitat tree measures are to be taken to avoid injury or death of animals likely to inhabit the tree. A1.5 – Where appropriate, alternative habitat is provided e.g. nesting boxes etc. A1.7 – The retention of trees that are not part of an ecological corridor.	Yes. Refer to Sections 2.14 and 4.12. Refer to Ecological Assessment Report in Appendix 16 and Ecological Report pertaining to Wildlife Corridors in Appendix 17.
2.1.5 Bushfire Risk	To protect people property and the environment from bushfire hazards	P1.1 – The siting and design of development minimises the risk of bushfire to people and	A1.1 – A Bushfire Risk Assessment Report is lodged with DA’s.	Yes Refer to Bushfire Threat Assessment in



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		property. P1.2 – Where risk is identified, the development plans for long - term management of bushfire.	A1.2 – Where the Bushfire Risk Assessment Report identifies a significant risk of bushfire, a site specific Bushfire Management Plan is prepared. A1.3 – APZ to include both an Inner Protection Area and an Outer Protection Area within the site boundaries. A1.4 – For subdivision, the depth of lots adjoining a Bushfire Risk area is sufficient for the construction of buildings in addition to the APZ. A1.5 – Fire resistant plant species are used for any landscaping within the Development Site Plan area.	Appendix 18 and Section 4.13.
		P2. – Bushfire risk is managed in conjunction with the preservation of the ecological values of the site and adjoining land.	A2.1 – Ecological and environmental values of the land are protected and maintained. A2. – On slopes greater than 1 in 5, development and APZ to avoid ridgelines and land steeper than 1 in 5.	Yes. (as above). Also refer to Ecological Assessment Report in Appendix 16 and Ecological Report pertaining to Wildlife Corridors in Appendix 17.
2.1.9 – Sloping Land and Soils	To restrict development on sites where slope and soil conditions are a constraint.	P1. – Development minimises environmental impacts by reducing the need for earthworks (cut and/or fill).	A1.1 – In combination, cut and fill external to the building perimeter of a site totals a maximum of 2m. The maximum for either cut or fill is 1m.	Yes Refer to Section 4.10 and Stability Assessment and Preliminary Contamination Assessment in Appendix 23.
		P2. – A Geotechnical Report that provides details of the soil and substructure conditions of the site is lodged.	A2. (as per the Performance Criteria).	(as above)
		P3. – Construction techniques and materials used are suitable for the slope, soil substructure and geological constraints of the land.	A3.1 – Development located on land with a slope greater than 1 in 5 (20%) is of pole or pier construction or multiple slabs that limit the combination of cut and fill to 2m. A3.2 – Cut and/or fill adjoining a boundary or footing of a building does not exceed 1m.	Yes. Refer to Road Design details in Section 4.10 and Appendix 27.
		P4. - The subdivision of land reduces the	A4. – Subdivision design and associated	(as above)



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		potential for cut and/or fill through the suitable location and design of roads, lot layout and associated development.	building development complies with slope criteria in Table 2 – Slope Class, Terrain, Potential Hazard, and Development Suitability.	
		P5. – Small lot housing is located taking into account slope, layout and soil structure constraints.	A5. – Lots with an area of less than 450sqm are located on land with: <ul style="list-style-type: none"> a maximum average slope of 1 in 7 (15%). 	N/A. All lots will be in excess of 450sqm.
		P6. Development limits the potential of damage to buildings/structures resulting from landslip.	A6. – A Geotechnical Report is prepared for subdivision development within geotechnical zones T1, T2, T3, T1A, T2A, T3A, T4 or T5.	Yes Refer to Section 2.9 and Stability Assessment and Preliminary Contamination Assessment in Appendix 23.
2.1.11 – Erosion Prevention and Sediment Control	To prevent erosion and run-off during site preparation, construction and the ongoing use of land.	P1.1 – Development minimises the exposure of the soil surface to the action of stormwater or wind. P1.2 – Measures are taken to limit sediment laden stormwater discharges and restrict stormwater flows over exposed areas during construction. P1.3 – Stormwater discharges from the site are directed to suitable devices and methods to intercept, retain and remove water borne pollutants.	A1.1 – Development is designed to reduce impacts of erosion by minimising disturbance, retaining vegetation and reducing the need for earthworks. A1.2 – Erosion and sediment control measures to be installed and maintained where the area to be disturbed exceeds 200sqm. A1.3 – Devices used for erosion prevention are designed and constructed pursuant to Council requirements.	Yes. There will be minimal disturbance to the existing vegetation as a result of the proposed subdivision and works. An Erosion and Sediment Control Plan has been prepared in accordance with Council guidelines (see Appendix 27) and will be implemented prior to construction commencing on the site.
2.1.12 – Mine Subsidence	To ensure Mine Subsidence Board concurrence for proposals on affected sites.	P1. – Concurrence from the Mine Subsidence Board has been obtained for the development.	A1. – (as per the Performance Criteria).	Yes. The approval of the Mine Subsidence Board has already been granted (Appendix 31).
2.1.13 – Contaminated Land	To ensure there is no unacceptable risk to human health or the environment from that may have been previously contaminated.	P1.1 – The level of contamination is clearly identified and addressed. P1.2 – The site is remediated and the works are reviewed and validated before the land is used. P1.3 – The proposal demonstrates how contaminants that are proposed to remain on the site will be monitored.	A1.1 – A Preliminary Site Investigation Report is prepared and lodged. Where contaminants are found within the site, a Detailed Investigation Report is prepared.	Yes. Refer to Section 2.10 and Preliminary Contamination Assessment in Appendix 23.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
2.1.14 – Energy Efficiency	To reduce the use of non-renewable resources and greenhouse gas-emissions.	P1. – Subdivision of land achieves a high level of energy efficiency through lot layout design.	A1. – Subdivision is designed in accordance with “Solar Access for Lots – Guidelines For Residential Subdivision in NSW (SEDA)	Yes. All lots are of suitable dimensions and orientation to ensure compliance.
2.2 – Social Impact				
2.2.1 - Social Impact Assessment	To ensure that development will provide positive community benefits to the locality and the City.	P1 - Development maintains and/or enhances Social Equity of the community affected by and/or likely to result from the proposed development, both now and into the future.	A1.1 & A1.2 - A Social Impact Assessment is prepared and lodged with the appropriate level of documentation as per the detailed solutions for Category 1 as well as the additional requirements for Category 2 developments.	Yes. A Social Impact Statement has been prepared by Key Insights Pty Ltd (see Appendix 25).
2.4 – Heritage				
2.4.3 – Aboriginal Heritage Items and Sites.	To assist the community to protect and conserve Aboriginal cultural, spiritual and sacred sites within the City.	P1. – For Aboriginal objects and places, development is permitted where it has the approval of the Department of Environment & Conservation and the support of the Local Aboriginal Community.	A1. – The requirements of the Local Aboriginal Community and the Department of Environment & Conservation must be considered and reflected in a DA.	Yes. Refer to Aboriginal Heritage Survey prepared by Koopahtoo Local Aboriginal Land Council (Appendix 19), Archaeological Assessment (Appendix 20), Archaeological Excavation Report (Appendix 21) and Aboriginal Community Consultation Report (Appendix 22).
		P2. – For sites, relics and places identified by the Local Aboriginal Community or Council, development is permitted where it has the support of the local Aboriginal community.	A2. Refer to Acceptable Solution A1.	(as above).
2.5 – Stormwater Management, Infrastructure and On-Site Services				
2.5.1 – Essential Infrastructure	To ensure the provision of essential infrastructure to all development in a manner that minimises environmental impacts.	P1.1 – Essential infrastructure is efficiently provided to all development including the delivery of water, electricity, communications, sewage, reticulated natural gas.	A1.1 – Development in the 2(1) Residential zone must be capable of connection to a reticulated sewerage system. Electrical, communication and natural gas infrastructure to be provided to new subdivision developments.	Yes Future dwellings on the site will be connected to the reticulated systems that presently serve the site (see Section 4.5). Refer to correspondence from service authorities in Appendix 30.
		P2. – Location and design of essential infrastructure minimises adverse environmental impacts in the short and long	A2.1 – Location of infrastructure avoids areas of ecological or scenic value and/or water bodies, waterways and wetlands.	Yes. All utility services are available to the land and will be able to be extended and upgraded as



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		term.	A2.2 – Essential Infrastructure is designed as an integral part of the development. A2.3 – Drainage, sewerage and sillage systems are designed so that overflows do not enter residences.	required to service the needs of the proposed residential subdivision. Generally, services will be provided along the access road so as to be accessed from the frontage of each lot.
		P3. – There is a adequate water supply for the intended use and fire fighting purposes.	(non relevant)	Yes. An adequate water supply for both the intended use of the site and fire fighting purposes will be available.
		P4. – Essential infrastructure is accessible, easy to maintain, uses available technology and is cost effective.	A4. – Compatible infrastructure is co-located in shared underground trenching.	Yes. Refer to Section 4.5 of the SEE.
2.5.3 – Stormwater Management (Drainage System Design)	To ensure stormwater systems are carefully planned, designed and located to prevent disturbance of watercourses and associated vegetation, and to protect quality of receiving waters.	P1.1 – Stormwater drainage system is planned to ensure watercourses and their associated vegetation are protected from disturbance, redirection, reshaping or modification. P1.2 – Stormwater planning, including site layout, is undertaken to ensure - design takes full account of the existing downstream systems; controls are incorporated into the design to minimise the impacts on water quality and quantity of runoff from the site; the system is accessible and easily maintained; maintenance access is available to those parts of the system on private land. P1.3 – Developments incorporating 10 or more lots are designed and constructed in accordance with a comprehensive water cycle strategy.	A1.1 – Drainage design system to comply with Council's design and construction requirements. A1.2 – A stormwater management plan is prepared. A1.3 – A comprehensive water cycle strategy is prepared.	Yes. Refer to Stormwater Management Plan in Appendix 27 and Section 4.9.
		P2.1 – Stormwater discharge to surface and underground waters does not degrade the quality of receiving waters. P2.2 – Stormwater management system optimises the interception, retention and	A2.1 – Development complies with the provisions outlined in Managing Urban Stormwater – Soils and Construction (1998). A2.2 – Refer to Section 2.1.11 – Erosion Prevention and Sediment Control.	(as above)



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		removal of water borne pollutants. P2.4 – Stormwater management system minimises the environmental impact of urban run-off on the quality of surface or ground receiving waters and on other aspects of the environment.	A2.4 – Water pollution control ponds or other water quality improvement devices are provided.	
		P3.1 – Natural water bodies, waterways and vegetation are retained and protected from increased stormwater flows. P3.2 – On-site detention of stormwater is required for residential developments of more than 2 lots.	A3.1 – A variety of controls are provided to minimise the increase in stormwater flows. A3.2 – Development complies with “Handbook for Drainage Design Criteria” (LMCC 2003).	(as above)
		P4.1 – For the major drainage system there is the capacity to safely convey stormwater flows from the relevant design storm and from more extreme events without any blockage or property damage. Public open space is incorporated into the stormwater management system in the form of detention basins etc.	A4.1 – Development complies with “Handbook for Drainage Design Criteria” (LMCC 2003).	(as above)
		P5.1 – For the minor drainage system, there is a capacity to control flows under normal operating conditions for the relevant ARI design storm. P5.2 – Drainage works are well defined, ensuring no hidden flow paths and minimising undesirable ponding for a prolonged period.	A5.1 – Development complies with “Handbook for Drainage Design Criteria” (LMCC 2003). A5.2 – Ponding is limited to a maximum of 72 hours for non road surfaces.	(as above)
		P6.1 – The system has the capacity to control site surface stormwater flows and any excess flows from upstream properties to prevent stormwater from entering buildings in the design event. P6.2 – The system minimises undesirable ponding for a prolonged period.	A6.2 – Following rainfall, no area is ponded to a depth greater than 50mm after one hour. A6.3 – If soil conditions are suitable, soakage chambers are installed within the property with overflow via an interlot drainage system. A6.4 – Proposed cut and fill considers the implications of incidental flooding.	(as above)



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		<p>P6.3 – A variety of source control measures are incorporated into the design, where soil conditions allow, that minimise the quantity of stormwater runoff.</p> <p>P6.4 – Development is located and designed to prevent water inundation as a result of incidental flooding.</p>		
2.5.4 - On-site Stormwater Harvesting	To ensure stormwater source controls are implemented to maximise stormwater reuse and prevent increases in the quantity of stormwater discharge from the development site.	P1 – All residential development is designed to achieve a Site Discharge Index that does not exceed 0.1.	<p>A1.1 – Runoff from impermeable surfaces is managed by appropriate stormwater controls. 50% of the rainwater falling on the roof of a residential dwelling is harvested and reused on the site. Consideration to be given to rain water tanks.</p> <p>A1.2 – Landscaping is maximised and incorporates suitable stormwater source control measures, such as swales, contour banks, vegetated filter strips and mulching to maximise permeable surfaces.</p> <p>A1.3 – Porous paving is provided that satisfies appropriate standards for site suitability, installation, maintenance and protection.</p> <p>A1.4 – On-site infiltration devices are provided that satisfy appropriate standards for soil suitability, siting and design.</p>	(as above)
2.6 – Transport, Parking, Access and Servicing				
2.6.2 – Traffic Generating Development	To apply the Movement System provisions of this DCP to SEPP 11 – Traffic Generating Development Proposals.	P1. – Development with high traffic generating potential adequately considers transport/land use issues.	<p>A1.1 – The proposal complies with Performance Criteria and Acceptable Solutions detailed in Sections 2.6.3 to 2.6.12 (where relevant).</p> <p>A1.2 – A Traffic Impact Statement for development identified in Schedule 1 and 2 of SEPP 11 is prepared and lodged.</p>	<p>Yes.</p> <p>Refer to Traffic Impact Study in Appendix 24. SEPP 11 has been repealed and SEPP Infrastructure does not apply to the proposed development.</p>
2.6.3 – Road Design	<p>To ensure road design reflects:</p> <ul style="list-style-type: none"> the function of the road, the needs of road users, 	<p>P1.</p> <ul style="list-style-type: none"> Development is suitably located on the road hierarchy. 	A1.1 – For residential development, road design is determined by assuring traffic volumes on individual roads consist of 8	<p>Yes.</p> <p>Refer to Proposed Plan of Subdivision in Appendix 11, Traffic Impact Study in Appendix</p>



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
	<ul style="list-style-type: none"> • sound engineering practices, • a variety of modes of transport, • Australian Standards. 	<ul style="list-style-type: none"> • Road network and design of roads facilitates connectivity. • Design of roads ensures stormwater systems protect the quality of the receiving environment. 	vehicle movements per dwelling per day. A1.2 – For medium and large subdivisions, the Road Hierarchy is designed to ensure individual lot access is gained via Collector or Local Roads that will carry less than 3,000vpd. A1.6 – The road hierarchy drainage system is designed to meet the intent of Sections 2.5.3 of the DCP (Stormwater Management). A1.7 – Street blocks are 130-170m maximum in length and 70-100m maximum in width. Development is only permitted on a lot that has direct access to a road. Geometric road design to comply with relevant Council guidelines (where the characteristics of the site may require variation from adopted Council guidelines, a suitably qualified Engineer or Registered Surveyor shall prepare the resulting design).	24 and Road Design details in Section 4.10 and Appendix 27.
		P2.1 – Design features of each type of road convey its primary function. Road reserve width is sufficient to cater for all road functions.	A2.1 <ul style="list-style-type: none"> • Roads comply with Council guidelines and requirements (see Table 1 and Diagram 1 in Section 2.6.3 of DCP No. 1). This requires local roads (secondary) which serve lots on two sides of the Road, to have a road reserve of at least 14m (ie. carriageway of 6m, nature strip of 4.5m, nature strip of 3.5m and footpath of 1.2m – with a rolled kerb). • Cul-de-sacs should not serve more than 10 lots and the end of the cul-de-sac should be clearly visible from cross streets. T-head designs are preferred. 	(as above)
		P2.2 – The nature strip width is adequate for safety, visibility, pedestrian movement, cyclists, landscaping, noise reduction, on-road parking, lot access, services and future	A2.2 – Nature strip area designed in accordance with Diagram 1 in Section 2.6.3 of DCP No. 1 (requires a 3.5m of 4.5m nature reserve, where a 1.2m footpath is required).	(as above)



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		requirements.		
		P2.3 – Development provides for the orderly extension of footpaths, kerb and guttering.	A2.3 – New footpaths, kerbing and associated works are provided in accordance with Table 1, or to match existing works in the Residential zones where subdivision will result in more than 5 lots.	(as above)
		P3.1 – The design facilitates safety for road users, including people with disabilities, older people and young people with children.	A3.1 – Roads are designed pursuant to Council guidelines and to meet the target speeds detailed in Table 2 – Road Type and Target Speed (requires a desired vehicle speed of 40km/h for local secondary roads).	(as above)
		P3.3 – Safe sight distance are provided, based on target speed (see Table 2 in Section 2.6.3 of DCP No. 1).	A3.3 – Sight distances are adequate from the access driveway to the road. Roads are provided with adequate on-street lighting.	(as above)
		P4. – Geometric design of roads, intersections, access driveways and speed reduction devices are consistent with Council's adopted guidelines.	A4.1 – Refer to Tables 16 and 17 in Section 2.6.8 – Vehicle Access of DCP No. 1. A4.2 – Geometric design of the road should try and facilitate stormwater management and run off from road surfaces using water cycle management principles. A4.3 – Desirable grades for roads are detailed in Table 3 – Road Grade (requires grades between 0.5% and 20%).	(as above)
		P5 – On Road Parking <ul style="list-style-type: none"> Road design and access driveway dimensions allow for unobstructed and efficient access to individual lots even when a vehicle is parked on the opposite side of the road. On-road resident and visitor parking is provided according to projected needs. 	A5.1 – Parallel parking is adequately provided for within the carriageway. A5.2 – Visitor parking is available at the rate of one on-road space per 2 residential lots. A5.3 – In cul-de sacs, indented bays or other special provisions are provided. A5.5 – Minimise road blockages in cul-de-sacs by appropriately locating driveways, supplying sufficient parking on-site and providing parking bays at the head of cul-de-sacs.	(as above) The road has been designed to facilitate on-road parking.
2.6.5 – Public	To maximise public transport usage.	P1. – Net residential densities within the	A1.1 – Incorporation of the Performance	Yes.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
Transport		walkable catchment (5-10 minutes/400-800m walk) of public transport routes, stops or stations, are set at levels that take advantage of the infrastructure investment and support the economic operation of services.	Criteria is demonstrated in the proposal through preparation and lodgement of a Site Analysis Plan.	Refer to Section 2.13.
		P2. – The road network facilitates efficient bus routes and pedestrian access to bus stops.	A2.1 – Bus routes are located on Collector – Bus Route Roads. A2.2 – Road networks are designed to maximise connectivity from local roads to the bus route. 90% of proposed lots should be within a 400m walk to a bus stop.	Yes. Refer to Section 2.13. Also refer to Proposed Plan of Subdivision in Appendix 11, Traffic Impact Study in Appendix 24 and Road Design details in Section 4.10 and Appendix 27.
2.6.6 – Vehicle and Parking Provision	To ensure that development is provided with adequate and well designed on-site car parking.	(Section 2.6.6 provides detailed Performance Criteria that primarily relate to new dwelling developments).	(Section 2.6.6 provides detailed Acceptable Solutions that primarily relate to new dwelling developments).	Yes. The proposed Lots are of sufficient size to ensure garages will be able to be provided to accommodate the off-street parking of vehicles. Any future development to comply with the provisions in Section 2.6.6.
2.6.7 – Car Parking Areas & Structures	To ensure car parking areas and/or structures are well sited and designed.	(Section 2.6.7 provides detailed Performance Criteria that primarily relate to new dwelling developments).	(Section 2.6.7 provides detailed Acceptable Solutions that primarily relate to new dwelling developments).	Yes. The proposed Lots are of sufficient size to ensure garages will be able to be provided to accommodate the off-street parking of vehicles. Any future development to comply with the provisions in Section 2.6.7.
2.6.8 – Vehicle Access	To provide safe access for vehicles between proposed developments and the existing road hierarchy.	P1. – Site access is suitable located and designed to optimise public safety and convenience.	A1.1 – The number of driveways accessing a site is kept to a minimum. Generally only one single access point should be necessary. Driveway location, separation and width continues the pattern of established development and site access points. A1.3 – Location of access driveway to have regard to characteristics of frontage road, sight distances, location of intersections, pedestrian and cycle requirements,	Yes. As shown on the proposed plan of subdivision in Appendix 11, adequate driveways with widths of at least 4m will be able to be provided to lots. Driveway construction will be pursuant to Council requirements.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
			requirements of RTA, etc. A1.5 – Access driveways and their splays do not protrude across shared property boundaries. A1.6 – Driveway widths comply with Table 9 and 10 – Vehicle Crossing Widths and Spacing Requirements and Minimum Widths of On-Site Driveways, respectively. Table 9 requires a maximum vehicle crossing width of 3m for a dwelling off a local road. Table 10 requires a minimum on-site driveway width of 2.7m for dwellings. A1.7 – Driveways are provided with laybacks and wings so that the crossing conforms to the footpath profile, not the road grade. A1.8 – Redundant driveways are removed.	
		P2. – Driveways are located as far as possible from intersections.	A2.1 – Driveway location complies with Table 11 – Driveway Location. Table 11 requires a minimum separation of 10m of a driveway from a minor intersection (Local and Collector Roads).	Yes. Refer to Proposed Plan of Subdivision in Appendix 11, Traffic Impact Study in Appendix 24 and Road Design details in Section 4.10 and Appendix 27.
		P3. – All driveways are located and constructed to provide adequate sight lines.	A3.1 – Sight distances are provided in accordance with Table 12 – Sight Distances for Access Driveways (requires a 110m sight distance for 60km/h roads).. A3.3 – Splays should be provided where the driveway meets the boundary.	(as above)
		P5. – Driveways are of a type, construction and width suitable to the development.	A5.1 – Driveway type and width is appropriate for the volume of traffic, the type of road to which access is sought, the existing and future traffic volumes, the number of car parking spaces, the number of service bays, etc. A5.2 – Driveway construction is suited to the type and volume of vehicles expected to use the site.	Yes. As shown on the proposed plan of subdivision in Appendix 11, adequate driveways with widths of at least 4m will be able to be provided to lots. Driveway construction will be pursuant to Council requirements.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
2.6.9 – Access to Bushfire Risk Area	To ensure suitable access is provided to areas of bushfire risk.	P1. – Roads are designed and constructed to conform with Planning for Bushfire Protection 2001.	A1.2 - Where a private road or access way to lots, the road is designed in accordance with the provisions of Planning for Bushfire Protection.	Yes. Refer to Proposed Plan of Subdivision in Appendix 11, Traffic Impact Study in Appendix 24 and Road Design details in Section 4.10 and Appendix 27. Also refer to Bushfire Threat Assessment in Appendix 18.
2.6.10 – Servicing Areas	To provide appropriate facilities for service vehicles.	P1. – Layout of development achieves adequate provision for on-site servicing that is clearly defined, safe and easily accessible.	A1.1 – The design and site layout provides for the operational requirements of service vehicles, pursuant to Council guidelines. A1.3 – Access for waste collection vehicles to bins and compactors are kept clear.	Yes. The proposed road layout can accommodate service vehicles.
2.6.12 – Non-Discriminatory Access and Use	To ensure equitable access for all members of the community.	P1. – Non-discriminatory access is provided to and within the development.	A1. – Development complies with the BCA and AS1428 Parts 1,2,3 and 4 – Design for Access and Mobility.	Yes. Refer to Proposed Plan of Subdivision in Appendix 11 and Road Design in Appendix 27. Road grades have been designed accordingly.
Section 2.7 – Streetscape and the Public Realm				
2.7.2 – Landscape	The provision of site landscaping, using local indigenous species wherever possible, that is appropriate to the nature and scale of the development.	P1 and P2. – A Category 3 Landscape Plan and Design Statement is prepared by a Landscape Architect.	A1 and A2. (as per Performance Criteria).	Yes. Refer to Section 4.14 and Landscape Design Report and Landscape Concept Plan in Appendix 14.
		P3. – Proposals demonstrate that the landscape design: <ul style="list-style-type: none"> is responsive to site characteristics and recognises the landscape context, supports the retention, regeneration 	A3. – The appropriate level of documentation is prepared and lodged demonstrating how the proposal meets the relevant requirements of Acceptable Solution A1.	(as above)



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		<p>and enhancement of areas of ecological value,</p> <ul style="list-style-type: none"> • contributes to energy and water efficiency, • supports pedestrian, cyclist and vehicular flows, • considers the needs of people who are mobility and visually impaired, • reduces risk to personal safety and the potential for crime/vandalism, • retains and protects heritage items or places, • clearly defines spaces and usage. <p>Proposals demonstrate that the landscape design:</p> <ul style="list-style-type: none"> • minimises the impact of, and supports the function of the built form, movement system and parking facilities, • effectively screens service areas, reduces noise impacts and highlights views and vistas, • is an integrated component of stormwater management, • minimises bushfire hazard, • can be reasonably maintained over the life of the development. 		
2.7.9 – Safety and Security	To discourage crime and increase casual surveillance, safety and security.	<p>P1. – The proposed development:</p> <ul style="list-style-type: none"> • maximises actual and perceived safety within the community through design, • encourages the public and private use of all spaces to maximise safety, • provides for surveillance or public spaces and private entries adjoining public spaces. 	<p>A1.1 – Site planning provides a clear definition of territory and ownership of all private, semi-public and public places.</p> <p>A1.7 – Development minimises opportunities for concealment and avoidance of “blind” corners.</p> <p>A1.8 – Planting and fencing does not reduce the safety of users.</p>	<p>Yes.</p> <p>The proposed plan of subdivision in Appendix 11 provides details of compliance with these requirements. The proposed layout is simple with a clearly defined movement system and no concealed spaces. Pedestrian access has been provided along all the frontages of lots and all lots will also have direct road frontage.</p>



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
			A1.9 – Pedestrian site access through a site is clearly defined.	Planting and fencing will be dealt with in greater detail at the time of the construction of dwellings.
3.2 – Subdivision				
3.2.1 Neighbourhood Design	– To ensure subdivision is integrated into the established subdivision pattern, provides a defined and positive streetscape character, enhances accessibility and safety and promotes the principles of ESD.	<p>P1.1 – Subdivision layout responds to site characteristics, setting, landmarks, views, site constraints and land capability.</p> <p>P1.3 – Road network provides a high level of internal accessibility and good external connections.</p> <p>P1.4 – Lot density minimises fossil fuel use by encouraging walking and cycling throughout the neighbourhood.</p> <p>P1.5 – The street and lot orientation and lot dimensions facilitate the siting and design of houses or building that conserve non renewable energy sources and assist in achieving design appropriate for the local climatic conditions.</p> <p>P1.8 – The subdivision layout provides for well distributed open spaces.</p> <p>P1.9 – The subdivision layout is designed to integrate with the surrounding neighbourhoods and natural environment.</p> <p>P1.10 – The subdivision layout enhances personal safety and minimises potential for crime, vandalism and fear by enabling surveillance by drivers of passing vehicles, pedestrians and cyclists.</p> <p>P1.12 – The subdivision layout protects and enhances water bodies, waterways, wetlands and ecological corridor functions.</p> <p>P1.13 – Subdivision design and layout provides for a mix of lot sizes to cater for the</p>	A1.1 – No specific Acceptable Solutions. Documentation relevant to the proposed development to be lodged to demonstrate that the proposal satisfies the Performance Criteria (Site Analysis Plan, Subdivision Plan, Structure Plan, etc).	Yes. Sections 4.2, 4.3 and 4.4, the Proposed Plan of Subdivision in Appendix 11 and the Landscape Plan in Appendix 14 provide details of compliance with these requirements. Also refer to Section 2.7.9 – Safety and Security in the table above.



Clause	Intent of Clause	Performance Criteria	Acceptable Solutions	Compliance
		diverse housing needs of the community.		
3.2.2 – Lot Size and Layout	To provide subdivision lot sizes that meet community and economic needs, while ensuring that ecological, social and scenic values are safeguarded.	P1. – Subdivision complies with the lot sizes detailed in Schedule 2 of LEP 2004. P2. – A range and mix of lot sizes are produced, suiting a variety of needs.	A1. – (No acceptable solutions – as per Performance Criteria). Schedule 2 of LEP 2004 has the following requirements for the site (zoned 2(1) Residential): <ul style="list-style-type: none"> • 450sqm minimum area for the standard lot (with minimum road frontage of 14m) • 600sqm minimum area for the battle axe lots with 5m frontage for the two lots. 	Yes. Refer to Section 4.3 and Proposed Plan of Subdivision in Appendix 11.



5.6.4 Lake Macquarie City Council Scenic Quality Guidelines 2004

The Lake Macquarie City Council Scenic Quality Guidelines 2004 ("Scenic Guidelines") are intended to assist in the preparation of a Visual Impact Statement ("VIS") as required in Section 2.1.3 of DCP No. 1. The site is located within Scenic Management Zone C, which is described as follows:

"Zone C

Is assigned to areas of moderate to low scenic quality and where the landscape values, while not making a significant contribution to the City's image and attractiveness, do not detract significantly from that image or amenity."

As the site is located within Scenic Management Zone C, a VIS is not required pursuant to the provisions of DCP No. 1. Notwithstanding, an assessment of the Scenic Quality of the site has been undertaken in Section 2.11 pursuant to the methodology outlined in these Scenic Guidelines. In addition, a VIS has also been prepared by Terras Landscape Architects which can be found in Appendix 15. The Visual Impact Statement concludes:

"Although it is considered that the proposed development would have a moderate impact on the existing visual environment, the proposed subdivision will lead to a shift in scenic amenity from rural/bushland to suburban/residential.

By selecting native street trees landscape design will help minimise the impact for a better development and assist in retaining and improving the general appearance of the local area and enhance the visual quality of the extended suburban area.

Any tree planting undertaken by new residents will further enhance the subdivision's scenic quality."

5.6.5 Lifestyle 2020 Strategy

5.6.5.1 Overview

The Lifestyle 2020 Strategy ("Lifestyle 2020") is the major planning initiative for Lake Macquarie that provides the strategies necessary to manage the population and employment growth expected to occur in the local government area until the year 2020. It underpins the land use strategy on which the Lake Macquarie Local Environmental Plan 2004 and the complementary suite of development control plans (particularly DCP No.1) are based.

Lifestyle 2020 is a policy document that establishes guidelines for further development within the Council area and includes visions, goals and strategic directions across the local government area. It includes strategic plan maps and statements of intent which identify the preferred pattern and location of development. Lifestyle 2020 repealed the Lake Macquarie City Council Housing and Residential Development Strategy which previously provided the strategic direction for future residential development in the local government area.

5.6.5.2 Aims

Lifestyle 2020 sets out the following aims in Section 4:

- *"To provide the community with a realistic expectation about the future development patterns of the City, while retaining flexibility for land use decision making in the longer term.*
- *To reinforce and strengthen Centres so that a wide range of commercial and community services may be provided in a timely and accessible manner.*
- *To provide local employment opportunities for residents and to promote economic development consistent with the City's natural, locational and community resources.*



- *To guide the development of urban communities which are compact, distinct and diverse with a range of housing types and activities.*
- *To achieve a strong sense of positive community identity, through the development of local communities which are safe and liveable and offer a diversity of use, economic opportunity and ready access to services.*
- *To develop an attractive urban setting for the City which reflects its physical and natural environment, and visual character.*
- *To manage the City's natural environment so that its ecological functions and biological diversity are conserved and enhanced, and contribute to the City's overall well being.*
- *To manage the City's heritage and economic resources in a way that protects the value of these resources and enhances the City's character.*
- *To integrate land use with the efficient provision of public and private movement systems."*

It is considered that the residential subdivision of a site zoned for residential purposes will be entirely consistent with the aims of Lifestyle 2020 for the following reasons:

- Lifestyle 2020 identifies the site as forming part of the "Urban Area" which is intended to be developed predominantly for low density housing. Lifestyle 2020 also identifies Morisset as a sub-regional centre which will be a focus for future growth and development.
- The site falls within the 2(1) Residential zone has therefore been identified as accommodating future development within the local government area.
- The site is within close proximity to Morisset which has been identified as a sub-regional centre. The proposal will increase the population of Morisset Park and it is considered that any increase in population so close to the existing centre will reinforce and strengthen this centre and enable the continued economic viability of the retail, commercial and community services provided.
- The proposal will facilitate the logical expansion of the existing residential areas to the north and east onto land that is already developed and predominantly disturbed. It will not result in the development of new Greenfield sites or significant suburban sprawl. The site is located within close proximity to schools, community facilities, retail and commercial uses and it is considered that the residential development of the site will continue to ensure that Morisset remains a compact, distinct and diverse urban community. The range of housing types and activities within Morisset will also be improved.
- Morisset, Morisset Park and surrounding areas already have a strong positive community identity. The proposed subdivision will reinforce this community identity, primarily as the development will take place on land that is already developed and forms part of Morisset Park. It will also offer a greater diversity of housing types and be readily accessible to services.
- As detailed in Sections 2.11 and 2.12, the proposal will take place on land that is already developed, degraded and disturbed. The proposal will not affect in any significant way the attractive setting, natural environment, or visual character of Morisset Park or the Lake Macquarie State Recreation Area to the south.
- As detailed in Section 2.14 there will be no significant adverse impacts on fauna or flora as a result of the proposal. The proposed residential subdivision will include the retention of a significant number of the existing trees (including hollow-bearing trees), as recommended in the Ecological Assessment Report in Appendix 16. This will ensure that this ecological function of the site will not be significantly disturbed.
- The site is not affected by any heritage listing and as detailed in the Aboriginal Site Surveys in Appendices 19, 20 and 21, no aboriginal artefacts were found on the site. The City's heritage resources will therefore be protected by the proposed development.



- The site is strategically located with respect to the existing public and private movement systems within the area. The proposed development will ensure continued support for public transport systems in the locality and will not place any undue burden on the existing road network. The payment of Section 94 contributions to Council associated with any residential development of the land will ensure existing infrastructure will be able to be maintained to meet the increased demands. In addition, a Deed of Agreement with the RTA has been entered into to fund the upgrading of the intersection of Fishery Point Road and Macquarie Street (State Classified Road) – refer Section 4.5.2.

5.6.5.3 Strategic Directions

Section 5 of Lifestyle 2020 sets out the strategic directions required to achieve these aims. Those that are relevant to the proposed subdivision are dealt with below.

Strategic Direction 5.1 – A City Responsive to its Environment

It is considered that the proposed subdivision will be consistent with this strategic direction for the following reasons:

- The proposed development will take place on land that is disturbed and already partly developed for residential purposes. A significant number of the existing trees (including hollow-bearing trees) will be retained on the site, in accordance with the recommendations of the Ecological Assessment Report (see Appendix 16).
- The development will ensure that undeveloped Greenfield sites are not disturbed in accommodating the demand for housing.
- No wetland or waterway will be adversely affected by the proposal.
- No significant adverse fauna or flora impacts will occur as a result of the proposal, as detailed in Section 4.12 and Appendices 16 and 17.
- The scenic qualities of the area will not be adversely affected as detailed in Sections 2.12 and 5.6.4 and Appendix 15.
- The development is unlikely to disturb acid sulphate soils, as detailed in Section 2.9.4.
- The site is suitable for the development proposed, and there are no significant constraints by way of stability, flooding, contamination etc as detailed in Section 2.
- The bushfire risk of the site will be able to be managed, as detailed in Section 4.13 and Appendix 18.
- The site is located in close proximity to the existing centre which will minimise travel by private vehicle and the resulting air pollution. The increased population will also provide additional support for existing public transport services.
- As detailed in Sections 4.2 and 4.3 and the Proposed Plan of Subdivision in Appendix 11, an energy efficient subdivision layout will be able to be achieved on the site.

Strategic Direction 5.2 – A Well Serviced and Equitable City

It is considered that the proposed subdivision will be consistent with this strategic direction for the following reasons:

- The proposal will ensure that residential expansion occurs on land that is already developed and is in close proximity to an existing centre. This will limit urban sprawl and expansion onto Greenfield sites.
- The proposal will ensure an increased population within close proximity to an existing centre and will assist in strengthening the viability and ability of Morisset to serve the community needs.



- The development will improve the social diversity of Morisset Park by providing a mix of lot sizes and housing types. This will allow existing and new residents to meet their housing needs at different stages in their lifecycle. It will also serve a range of income levels.
- The site already accommodates residential uses, is part of the existing road network, is close to the existing centre and is serviced. As a result, the basic infrastructure is in place to ensure an efficient and ecologically sustainable form of development.
- The proposal will encourage additional housing in a location that will support an existing centre and existing public transport.
- The proposal will provide a diverse range of allotment types.
- The proposal will facilitate development in an area which can economically be provided with the essential infrastructure services required.

Strategic Direction 5.3 – A Well Designed and Liveable City

It is considered that the proposed subdivision will be consistent with this strategic direction for the following reasons:

- The proposal will protect the amenity of the local government area through the development of developed and disturbed land that is of little scenic value – Scenic Management Zone C (see Sections 2.12 and 5.6.4). This will ensure that natural areas and Greenfield sites remain undisturbed by the pressures of urban growth.
- The development will not have a significant adverse impact on the green system identified in Lifestyle 2020, as detailed in Section 5.6.5.5.
- The development of the site for residential purposes will be compatible with the residential character of the adjoining land to the north and east. The proposal will therefore not adversely impact upon the residential amenity of the surrounding areas.
- The development will not result in the loss of views or privacy from surrounding properties.
- As detailed in Section 2.15 the proposal will not adversely impact upon places of cultural or heritage significance.

Strategic Direction 5.4 – A City of Progress and Prosperity

It is considered that the proposed subdivision will be consistent with this strategic direction for the following reasons:

- The proposal will enable the growth of an existing centre and suburban residential area which will in turn support the function and capacity of the existing movement system and public infrastructure.
- The proposed increase in the residential population of Morisset Park will facilitate multiplier effects related to the increased economic viability of businesses within Morisset, business expansion, employment growth and the long term viability of the centre.

Strategic Direction 5.5 – An Easily Accessible City

It is considered that the proposed subdivision will be consistent with this strategic direction for the following reasons:

- The provision of additional housing on a site that is within close proximity to the Morisset retail and commercial centre and the train station, will reduce reliance on private vehicles. It will also ensure additional support for, and ongoing viability of, the public transport system.



- The proposal comprises a logical extension to the existing suburban area to the north and east of the site. It will promote an efficient, accessible and environmentally responsible pattern of development through the development of a brownfield site that is interconnected with the existing settlement.
- The proposal will improve the mix of housing types and allotment sizes that are in close proximity to an existing centre. This compact form of development will maximise the opportunities for public transport use.
- The site already forms part of the existing road network and the basic infrastructure is in place to ensure an efficient and ecologically sustainable form of development.

5.6.5.4 Urban Structure

The Urban Structure map in Lifestyle 2020 identifies the site as forming part of the “Urban Area” which is intended to be developed predominantly for low density housing. Lifestyle 2020 also identifies Morisset as a sub-regional centre which will be a focus for future growth and development. It is this strategic location of the site adjacent to an existing residential area that makes it suitable in accommodating the future expansion of this settlement. This will enable the evolution of the existing centre in a coordinated and orderly way that will:

- Strengthen the function and character of the existing centre.
- Preserve and enhance the character of the local area.
- Provide a diversity of housing opportunities.
- Improve the connectivity of roads, public places and facilities.
- Provide additional support for existing business, community facilities, schools and public transport services.

5.6.5.5 Green System

The Green System Map in Lifestyle 2020 identifies the site as being in proximity to scattered areas of “Remnant Vegetation”. Remnant vegetation areas are described as areas which contain widespread vegetation communities that also exhibit scenic functions and should be managed to ensure important habitats are retained.

As detailed in the Ecological Assessment Report in Appendix 16, no areas of remnant vegetation or threatened fauna and flora will be significantly affected by the proposed development. The proposed subdivision will include the retention of a significant number of the existing trees (including hollow-bearing trees) to ensure this habitat function of the site is conserved. No Ecological Corridor will be affected by the proposal (see Appendix 17).



6. ANALYSIS OF KEY ISSUES

6.1 Site Suitability

The suitability of the site for the proposed subdivision is dealt with in Section 2. The site is developed for rural residential purposes, is serviced and adjoins existing suburban residential areas to the north and east. Environmental hazards (such as bushfire risk, possible contamination, site stability, etc), will be able to be managed and the site has a gentle gradient. No fauna or flora of any significance will be affected and the proposal will include the retention of a significant number of the existing trees (including hollow bearing trees) within the site.

As the site comprises land that is disturbed and predominantly developed for rural residential purposes, it is not a major contributor to the value, amenity and identity of Lake Macquarie (refer to Sections 2.12 and 5.6.4). The site is not one that is dominated by the natural landscape and therefore the natural landscape in this area (ie. some of the areas to the south of the site) will not be compromised.

The site is not affected by any heritage listing and as detailed in the Aboriginal Site Surveys in Appendices 19, 20, 21 and 22 no aboriginal artefacts will be affected by the proposal. The City's heritage resources will therefore be protected by the proposed development.

It is therefore considered that the site is eminently suitable for the proposal.

6.2 Spatial Benefits

The site comprises a large tract of land that adjoins the existing settlement of Windermere Park. Suburban style residential development adjoins the site to the north and east as shown on the aerial photo in Appendix 3. It comprises developed and disturbed land that will be able to accommodate the logical expansion of the settlement to the north and east. This will result in the spatial benefits associated with a residential development that is totally integrated with the existing centre.

6.3 Social and Economic Impacts

The Social Impact Assessment prepared by Key Insights Pty Ltd (see Appendix 25) provides a detailed review of the social and economic impacts of the proposed development. This report concludes as follows:

"Like any development there are positive and negative impacts associated with the proposed rezoning and subsequent redevelopment. There are both economic and social impacts to be considered.

Positive impacts associated with the rezoning and subsequent residential development include:

- *Jobs during the construction phase conservatively estimated at 1 job per \$1M in construction costs. These jobs would include a range of trades including tillers, roofer, concreters, plumbers, electricians etc.*
- *Multiplier effect throughout the region as a result of construction employment.*
- *Jobs in the supply industry as a result of construction activity.*



- *Increased trade and economic activity in the surrounding area including more customers of local centre Bonnells Bay and urban centre Morisset Township.*
- *Contribution to the social mix of Morisset Park, helping to maintain a vibrant sustainable community.*
- *Potential for affordable housing and diverse housing.*
- *Potential to target key social groups, such as young families, first home-buyers, sustainable life- stylers, and young adults.*
- *Increase in population contributing to critical mass necessary to attract increased Council attention and services, such as sports oval and other recreational facilities.*
- *Increase in eligible volunteers for community service.*

The potential negative impacts of the proposed development include:

- *Contribution to the loss of isolation and semi-rural atmosphere as a key characteristic of the area.*
- *Increased noise in the local area, particularly during construction.*
- *Increased traffic on the local road system.*
- *Contribution to longer-term stress on aged care facilities, health services and other government funded services, if no extra services are provided.*
- *Potential isolation from existing community if block size, aesthetics and design differs significantly from existing style and atmosphere.*

With regard to the above-mentioned potential negative impacts, it is relevant to note the following:

- The proposed residential subdivision will minimise the loss of isolation and the semi-rural atmosphere of the area. This is primarily as the site adjoins existing suburban residential areas to the north and east. The site is also presently used for rural residential purposes and therefore the impacts on the local area will not be significant.
- Although there will be increased noise levels in the local area during construction, these impacts will not be long term and will be managed in accordance with the Construction Management Plan (see Appendix 28).
- As detailed in the Traffic Impact Study in Appendix 24, the increased traffic on the local road system will be able to be accommodated within the existing road system.
- There is already stress on aged care facilities, health services and other government funded services within the local area. This is an existing situation that is common throughout the Lake Macquarie local government area and the State. This is not a situation that will be created by the proposed development and is a matter that needs to be addressed state wide.
- The proposed subdivision layout will be consistent with the prevailing subdivision pattern within the area. As detailed in Section 4.3, lot sizes will generally vary between 570 and 1,000 square metres and as a result, will be generally similar to the existing lots within the area. This will ensure that the aesthetics and design of the proposal will be an improvement to the existing layouts to the north and east of the site.



6.4 Traffic Impacts

The traffic impacts of the proposed subdivision have been detailed in the Traffic Impact Study in Appendix 24. This assessment concludes as follows:

"The environmental capacity of Victoria Street and Baldwin Boulevard is adequate to accommodate predicted traffic flows. Other local roads would also be able to accommodate any minor flows that may be generated by the proposed development.

The intersection of Baldwin Boulevard and Fishing(sic) Point Road may require upgrading in year 2018 to reduce delays for vehicles turning right out of Baldwin Boulevard.

This assessment confirms that the intersection of Morisset Park Road and Fishery Point Road will require upgrading with the installation of traffic control signals."

6.5 Flora and Fauna Impacts

Details in this regard are provided in Section 4.12, the Ecological Assessment Report in Appendix 16 and the Ecological Report pertaining to Wildlife Corridor Issues in Appendix 17.

6.6 Bushfire Management

A Bushfire Threat Assessment in relation to the proposed development has been prepared by Harper Somers O'Sullivan (see Appendix 18). This assessment makes certain key design recommendations to enable a future subdivision layout to meet the relevant legislative requirements (see Section 4.13 of the SEE). As detailed on the Structure Plan in Appendix 10 and the Proposed Plan of Subdivision in Appendix 11, a future residential subdivision will be able to comply with these recommendations.

6.7 Heritage Impacts

As detailed in Section 2.15 and the Aboriginal Archaeological Surveys in Appendices 19, 20, 21 and 22, the proposed subdivision will have no adverse impacts on either European or Aboriginal heritage.

6.8 Stormwater Management

A Concept Stormwater Management Plan for the proposed subdivision of the site has been prepared by Northrop Engineers (see Appendix 27). This strategy incorporates the principles of Water Sensitive Urban Design, including the future use of rainwater tanks, on-site detention and ensuring water leaving the site in the developed state will be controlled to exhibit nutrient levels not exceeding that of Council's guidelines relating to pollutants. Water quality will be controlled through the use of gross pollutant traps.

6.9 Noise Impacts

The only operational noise impacts associated with the proposed subdivision will be those related to traffic noise. As detailed in the Traffic Impact Study in Appendix 24, the traffic likely to be generated by the proposal will be



well within the environmental capacity of the existing road network. In addition, the traffic noise from a future suburban development will be similar to that already generated by the existing suburban areas to the north and east. Traffic generation will not be significant and there are no sensitive receiving environments within close proximity to the site. As a result, it is considered that no noise mitigation measures are required in relation to the proposed residential subdivision.

Construction noise will be managed through the provisions of the Construction Management Plan (Appendix 28).

6.10 Construction Management

A Construction Management Plan ("CMP") has been prepared by Hale Development Services and is included in Appendix 28. This CMP provides the following strategies for managing construction at the site:

- Site Management Strategy, dealing with issues such as site communication, site safety, construction traffic and community relationships.
- Water Management Strategy.
- Dust Management Strategy.
- Road Management Strategy.
- Noise and Vibration Management Strategy.
- Contaminated Soil Contingency Strategy.
- Waste Minimisation Strategy.
- Complaints Handling.

6.11 Utility Services

Details in this regard are provided in Section 4.5 and the correspondence with the utility companies in Appendix 30. The site forms part of land that is fully serviced. As a result, all utility services are available to the land and will be able to be extended and upgraded as required to service the needs of the residential subdivision. Generally, services will be provided along the access roads so as to be accessed from the frontage of each lot.

6.12 Impacts on the Natural Environment

The proposed development will take place on land that is disturbed, degraded and predominantly developed. As detailed in the Ecological Assessment Report in Appendix 16, no areas of remnant vegetation or threatened fauna and flora will be affected by the proposed development and neither will any wetlands or waterway. Hollow bearing trees will be retained wherever practicable as part the residential subdivision.

The site represents a logical extension to the existing settlement of Windermere Park and is also the only land adjacent to this suburban area that could be redeveloped, without significant impacts on sensitive natural areas and areas of dense bushland. The proposal will protect the amenity of the local government area through the development of developed and disturbed land that is of little scenic value (see Section 5.6.4). This will ensure that natural areas and greenfield sites remain undisturbed by the pressures of urban growth.



6.13 Impacts on the Built Environment

The proposal will facilitate the logical expansion of an existing settlement onto land that is developed and disturbed. It will not result in the development of new greenfield sites or significant suburban sprawl as the site is located adjacent to the existing suburban area of Windermere Park. As detailed in the Social Impact Assessment in Appendix 25, the site is within a reasonable distance of a range of facilities located at Bonnells Bay and Morisset. The site is also well located with respect to the F3 freeway and the Morisset train station. The residential development of the site will continue to ensure that Morisset Park and Windermere Park remain compact, distinct and diverse urban communities.

The site is strategically located with respect to the existing public and private movement systems within Morisset Park. It already forms part of the existing road network and the basic infrastructure is in place to ensure an efficient and ecologically sustainable form of development. The proposed development will ensure continued support for public transport systems in the locality and will not place any undue burden on the existing road network. The payment of Section 94 contributions to Council associated with any residential development of the land will ensure existing infrastructure will be able to be maintained to meet the increased demands.

It is considered that the development will improve the character of this area and have a positive impact on the built environment. The development will not result in the loss of views or privacy from surrounding properties and, as detailed in Section 2.15, the proposal will not adversely impact upon places of cultural or heritage significance.

6.14 Ecologically Sustainable Development

Ecologically Sustainable Development ("ESD") principles are required to be taken into account in the preparation and consideration of development proposals pursuant to, inter alia, Section 5 of the EP&A Act.

The principles of ESD are not defined in the Act, but are outlined in Section 6(2) of the Protection of the Environment Administration Act 1991 as follows:

"ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

(a) *the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

In the application of the precautionary principle, public and private decisions should be guided by:

(i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*

(ii) *an assessment of the risk-weighted consequences of various options,"*

The proposed development is supported by specialist technical reports which conclude that the proposal's impacts can be successfully managed and mitigated. No serious or irreversible environmental impacts have been identified.



“(b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,”

The design of the subdivision will ensure that the existing environment is protected for future generations.

“(c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,”

The proposed development is supported by specialist technical reports which have included a thorough assessment of how the existing biological diversity and ecological integrity can be conserved. No serious or irreversible environmental impacts have been identified.

“(d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:

- (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
- (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
- (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.”*

This principle is not directly applicable to the subject subdivision proposal.

7. DRAFT STATEMENT OF COMMITMENTS

In accordance with the Director General's requirements for the preparation of this EA, this section provides a draft Statement of Commitments which details the measures proposed by the proponent (Postfox Pty Ltd) for environmental mitigation and management of the proposed project. The draft Statement of Commitments identifies those matters which will be dealt with in the next stage of the proposed project in order to minimise the impacts on the environment. Those matters arise from the detailed analysis of the project which has been carried out and documented in this report and the accompanying specialist reports.

If approval is granted under Part 3A of the EP&A Act, 1979, the proponent will commit to the following controls for the construction and operation of the proposed development.

NO.	ITEM	COMMITMENTS
1.	Scope of Development	The development will be carried out substantially in accordance with the Environmental Assessment prepared by de Witt Consulting, supporting plans and reports.
2.	General	The developer will obtain and maintain the following licences, permits and approvals for the residential subdivision: <ul style="list-style-type: none"> • Lake Macquarie City Council/Private Certifier – Subdivision and Construction Certificates for works associated with the subdivision. This will include engineering design plans containing, where relevant, detailed designs relating to earthworks, drainage, soil erosion, sediment control, site rehabilitation, tree clearing, site stability, roadworks, footpaths, water supply, sewerage works and landscaping. • Energy Australia – Design Certification • Hunter Water Corporation – Compliance Certificate • Telstra – Compliance Certificate • Department of Land and Property Information – Registration of Subdivision.
3.	Conveyancing	Prior to the release of the Subdivision Certificate, a Section 88B Instrument will be prepared to provide for, inter alia, easements for services, Asset Protection Zones and drainage.
4.	Construction	Prior to the release of the Construction Certificate, the developer will prepare a Construction Management Plan addressing matters relating to education of contractors, statutory obligations, management procedures, sediment controls, traffic management, flora and fauna management, environmental management procedures and waste minimisation.
5.	Infrastructure	Prior to the release of the Subdivision Certificate the developer will provide underground power to each residential lot in the subdivision in accordance with the requirements of Energy Australia. Prior to the release of the Subdivision Certificate, the developer will provide underground telecommunications infrastructure to each lot in the subdivision in accordance with the requirements of Telstra. Prior to the release of the Subdivision Certificate, the developer will provide reticulated water and sewerage services to each lot in the subdivision in accordance with the requirements of Hunter Water Corporation.

NO.	ITEM	COMMITMENTS
6.	Stormwater and Water Quality	Prior to the release of the Subdivision Certificate, stormwater management and water quality infrastructure in accordance with the Concept Stormwater Management Plan prepared by Northrop Engineers will be provided. This will include a regional detention basin, pit and pipe stormwater system and gross pollutant traps.
7.	Bushfire Protection	<p>Prior to the registration of the Final Plan of Subdivision, the recommendations of the Bushfire Threat Assessment prepared by Harper Somers O'Sullivan will be implemented including:</p> <ul style="list-style-type: none"> • A 20m APZ will be provided along the western boundary of the site. • A 25m APZ will be provided between the proposed dwelling on Lot 3 and the vegetation to the north. • A 20m APZ will be provided between the retained vegetation on Lot 3 and the residential lots to the east. • The internal roads will be constructed in accordance with the requirements of Planning for Bushfire Protection (2006). • Future dwellings on the lots will be built in accordance with the relevant construction levels in AS3959-1999 for construction of buildings in bushfire prone areas (as shown in Figure 8.1 – Construction Levels of the Bushfire Threat Assessment prepared by Harper Somers O'Sullivan). • The development will be linked to the existing mains pressure water supply and suitable hydrants will be clearly marked and provided for the purposes of bushfire protection. • The responsibility of the maintenance of the proposed APZ's will be the individual lot owner. • Fuel management in the APZ's will be in accordance with Planning for Bushfire Protection (2006) or as specified by the NSW Rural Fire Service.
8.	Soil Erosion	<ul style="list-style-type: none"> • A Sediment and Erosion Control Plan will be developed in accordance with the relevant guidelines prior to the commencement of construction. • Surface drainage for construction will be installed prior to commencement of earthworks to intercept overland flow from the upslope catchment area. • Topsoils will be stockpiled for landscaping purposes. • Any filling on the site will be placed and compacted in accordance with AS3798-1996, Guidelines on Earthworks for Commercial and Residential Development. • Any retaining walls over 1m constructed on site as part of the subdivision development will be engineer designed.
9.	Noise	Construction operations will take place in approved Council hours.
10.	Dust	<ul style="list-style-type: none"> • All loads leaving the site will be adequately covered. • Stockpiles will be maintained in a moist condition to minimise wind blown and traffic generated dust. • All roads and trafficked areas will be watered as required to minimise dust generation.
11.	Landscaping	<p>Prior to the release of the Subdivision Certificate:</p> <ul style="list-style-type: none"> • Plantings will be in accordance with a detailed Landscape Plan

NO.	ITEM	COMMITMENTS
		<p>to be prepared in accordance with the Landscape Concept Plan already prepared by Terras Landscape Architects. The Landscape Plan will be prepared by a suitably qualified Landscape Architect.</p> <ul style="list-style-type: none"> • Trees to be retained within proposed road reserves and/or within lot boundaries will be identified on a tree retention plan with the Construction Certificate application.
12.	Vegetation and Tree Management	<p>Prior to the registration of the Final Plan of Subdivision:</p> <ul style="list-style-type: none"> • Mature trees, particularly those containing hollows, will be retained wherever they can be safely retained with regard to public safety. • Where hollow bearing trees are required to be removed with the site, a qualified ecologist will identify and mark the trees prior to any vegetation clearing. Hollow bearing trees will be left standing for one night after all other vegetation is removed to allow fauna to vacate hollow. An ecologist will guide hollow bearing tree removal to ensure any fauna are recovered, with the provision of nest boxes in trees to be retained if required. • Future landscaping will utilise locally occurring flowering/fruited native shrubs that would provide potential foraging resources for native species.
13.	Aboriginal Heritage	<p>The developer will ensure that if there is any evidence of Aboriginal archaeological content exposed during the construction stage, the developer and any associated contractors will stop work and notify the Aboriginal stakeholders group and Department of Environment and Climate Change.</p>
14.	Final Plan of Subdivision	<p>The developer will prepare the Final Plan of Subdivision and required Section 88B Instruments in accordance with the requirements of Lake Macquarie City Council and the Department of Lands (Land and Property Information).</p>
15.	Developer Contributions	<p>The developer will pay Section 94 Contributions to Lake Macquarie City Council in accordance with Council's Section 94 Contributions Plan and as per conditions of any development consent granted, prior to the release of the subdivision certificate.</p>



8. CONCLUSION

This Environmental Assessment ("EA") has been prepared to accompany a Major Project Application under Part 3A of the Environmental Planning and Assessment Act, 1979 in order to address the Director-General's Environmental Assessment Requirements for a 73 allotment residential subdivision.

The proposed development comprises the subdivision of Lot 9 DP 244002 and Lot 358 DP 755242, being the land known as No's 27 & 51 Morisset Park Road, Morisset Park. The site has frontages to Morisset Park Road and Chifley Road, Morisset Park. The site includes two existing dwellings and associate sheds to be demolished. It is intended to subdivide the site into 62 residential lots generally varying between 570 square metres and 1,000 square metres. The proposal will also involve the dedication of roads to service the proposed lots and the dedication of a regional drainage reserve.

The site provides the opportunity for the residential subdivision on land recently rezoned for residential purposes that adjoins a suburban environment to the north and east, land zoned environmental living to the west and National Park to the south. The proposed subdivision layout will consist of diverse lot sizes which are primarily of a standard rectangular shape with orientations which have the opportunity to provide for energy efficient dwellings with good solar access and limited overshadowing on a north facing gentle slope. In this EA, the proposal has been assessed against the relevant zoning provisions and objectives, development standards, and DCP requirements. It is a permissible and generally complying development.

This EA has addressed in detail both the statutory and non-statutory provisions that apply to a development of this nature, particularly State Environmental Planning Policy No. 71 – Coastal Protection, Hunter Regional Environmental Plan, 1989, Lake Macquarie Local Environmental Plan 2004, Lake Macquarie Lifestyle 2020 Strategy and the Lake Macquarie Development Control Plan No. 1 – Principles of Development.

It has been demonstrated by addressing the Director-General's requirements that the proposal does not adversely impact upon the surrounding environment. This has been supported by investigations by suitably qualified practitioners with expertise in a range of fields to ensure that there will be no irrevocable damage to the environment.

It is considered that the proposal is the best economic use of the site while maintaining a low density residential character compatible with the surrounding suburban environment. The development is consistent with the NSW Government's policies for the protection of sensitive coastal environments.



APPENDICES



APPENDIX 1

Director General's Environmental Assessment Requirements



APPENDIX 2

Location Plan



APPENDIX 3

Aerial Photograph



APPENDIX 4

Zoning – Lake Macquarie LEP 2004



APPENDIX 5

Council's Coastal Zone Map



APPENDIX 6

Council's Bushfire Prone Land Map



APPENDIX 7

Deposited Plans



APPENDIX 8

Survey Plan prepared by de Witt Consulting



APPENDIX 9

Site Analysis Plan prepared by Terras Landscape Architects



APPENDIX 10

Structure Plan prepared by de Witt Consulting



APPENDIX 11

Proposed Plan of Subdivision Plan prepared by de Witt Consulting



APPENDIX 12

Plan of Trees to be Retained prepared by de Witt Consulting



APPENDIX 13

Plan of Trees to be Removed prepared by de Witt Consulting



APPENDIX 14

Landscape Design Report and Concept Plans prepared by Terras
Landscape Architects



APPENDIX 15

Visual Impact Statement prepared by Terras Landscape Architects



APPENDIX 16

Ecological Assessment Report prepared by Harper Somers O'Sullivan
Pty Ltd



APPENDIX 17

Ecological Report Pertaining to Wildlife Corridor Issues prepared by
Harper Somers O'Sullivan Pty Ltd



APPENDIX 18

Bushfire Threat Assessment prepared by Harper Somers O'Sullivan Pty
Ltd



APPENDIX 19

Aboriginal Heritage Survey prepared Koombahtoo Local Aboriginal
Land Council



APPENDIX 20

Archaeological Assessment prepared by Insite Heritage



APPENDIX 21

Archaeological Excavation Report (Section 87 Test Probe Permit)
prepared by Insite Heritage



APPENDIX 22

Aboriginal Community Consultation Report prepared by Insite Heritage



APPENDIX 23

Stability Assessment and Preliminary Contamination Assessment
prepared by Coffey Geosciences Pty Ltd



APPENDIX 24

Traffic Impact Study prepared by Northern Transport Planning and Engineering



APPENDIX 25

Social Impact Assessment prepared by Key Insights Pty Ltd



APPENDIX 26

Flooding, Surface and Groundwater Hydrology Assessment prepared by
Northrop Engineers



APPENDIX 27

Concept Stormwater Management Plan and Road Design prepared by
Northrop Engineers



APPENDIX 28

Construction Management Plan prepared by Hale Development Services



APPENDIX 29

Quantity Surveyors Certificate



APPENDIX 30

Letters from Utility Companies (Energy Australia, Agility, Hunter Water)



APPENDIX 31

Approval from Mine Subsidence Board



APPENDIX 32

Section 65 Certificate and Section 64 Report (2005) from Council to Department of Planning regarding LEP Amendment No. 10 (includes Exhibition Material)



APPENDIX 33

Gazettal Notice for Lake Macquarie LEP Amendment No. 10



APPENDIX 34

Notes from Pre-DA Meeting with Council on 4 December 2007