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# **Berrima Brickmaking Plant Social Impact Assessment**

Prepared for  
Brickworks Land &  
Development

May 2020

**HiIPDA**  
CONSULTING

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## Report Contacts

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**Alex Peck**

**Consultant**

B. Sci (UNSW), B. SocSci (UNSW), M. Plan (UNSW), PIA (Assoc.)

[alexander.peck@hillpda.com](mailto:alexander.peck@hillpda.com)

## Supervisor

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**Elizabeth Griffin**

**Principal**

BA (Geog) M.Urb.Pl. MPIA

[elizabeth.griffin@hillpda.com](mailto:elizabeth.griffin@hillpda.com)

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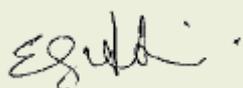
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# INTRODUCTION

## 1.0 INTRODUCTION

HillPDA has been engaged by Brickworks Land and Development to prepare a Social Impact Assessment (SIA) to accompany State Significant Development Application for a brickmaking plant (the proposed development) at 416 Berrima Road, Moss Vale in NSW (the subject site). The subject site is located 1.6 km south-east of New Berrima village.

The SIA has been developed to align with the Secretary's Environmental Assessment Requirements (SEARs) issued for this proposal on 30 January 2020 and the NSW Department of Planning, Industry and Environment (DPIE) Social Impact Assessment Guideline.<sup>1</sup>

This Social Impact Assessment aims to identify both potential positive and negative social impacts associated with the proposed development. This report also suggests mitigation measures which will help to maximise social benefits and minimise negative impacts, to the community.

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<sup>1</sup> NSW Department of Planning Industry and Environment (2017), *Social impact assessment guideline*. <https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/social-impact-assessment-guideline-2017-09.pdf>

# METHODOLOGY

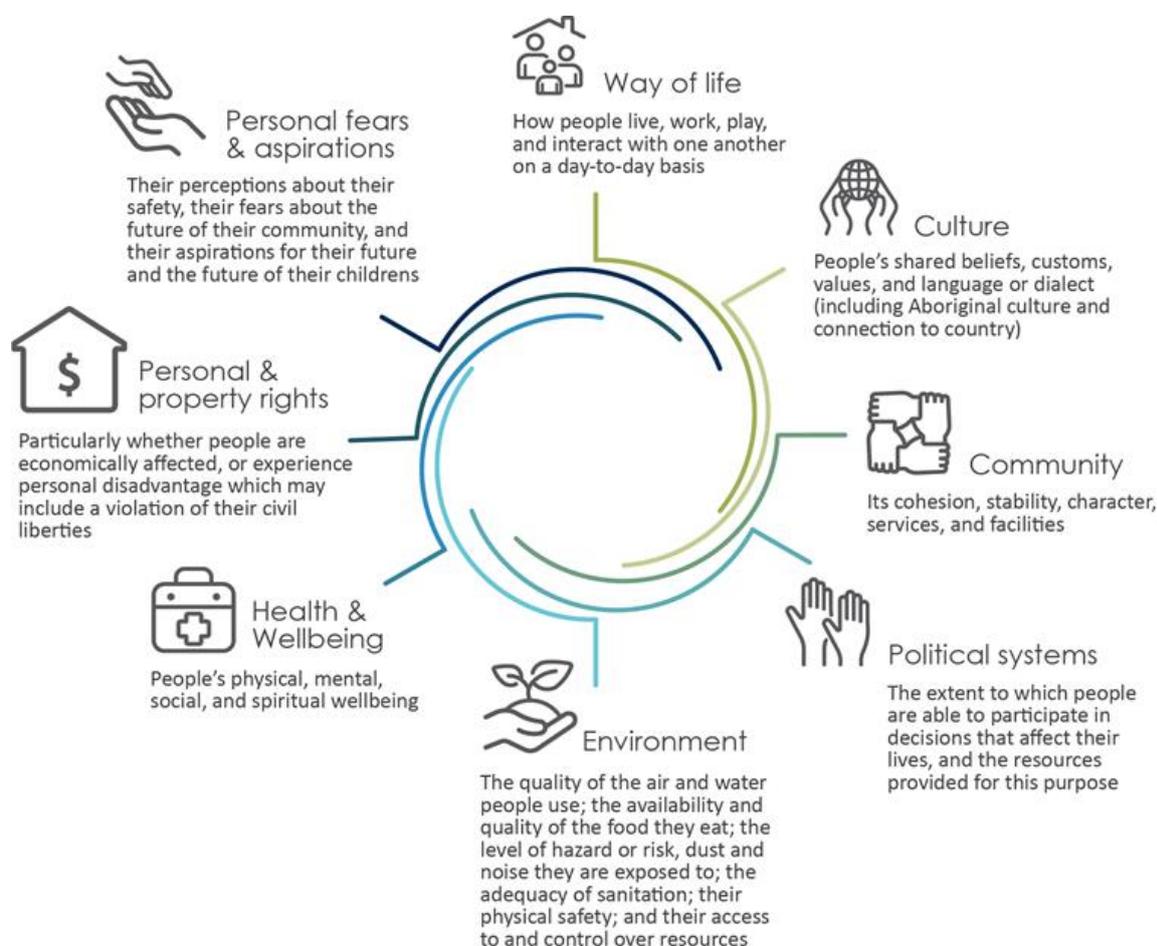
## 2.0 METHODOLOGY

### 2.1 Defining social impacts

A social impact can be defined as the net effect of an activity on a community and the well-being of individuals and families. HillPDA has carried out research into best practice social impact assessment. This social impact assessment has been prepared to align with the requirements of the NSW Department of Planning, Industry and Environment (DPIE) *Social Impact Assessment Guideline*.

The DPIE Guideline is designed to establish a clear, consistent and rigorous framework for identifying, predicting, evaluating and developing responses to the social impacts of those projects, as part of the overall environmental impact assessment. The guideline builds on work from Vanclay (2003) and establishes that social impacts arise from changes that impact people in any of several ways. Figure 1 details these potential areas that could be impacted by a development.

**Figure 1: Social impacts**



Source: Adapted from Vanclay, F. (2003). International Principles for Social Impact Assessment. *Impact Assessment & Project Appraisal* 21(1), 5-11

## 2.2 Assessment methodology

This social impact assessment has been prepared having regard to the relevant NSW Government and Council guidelines. Figure 2 presents the key steps and tasks undertaken to prepare this Social Impact Assessment.

Figure 2: Assessment methodology

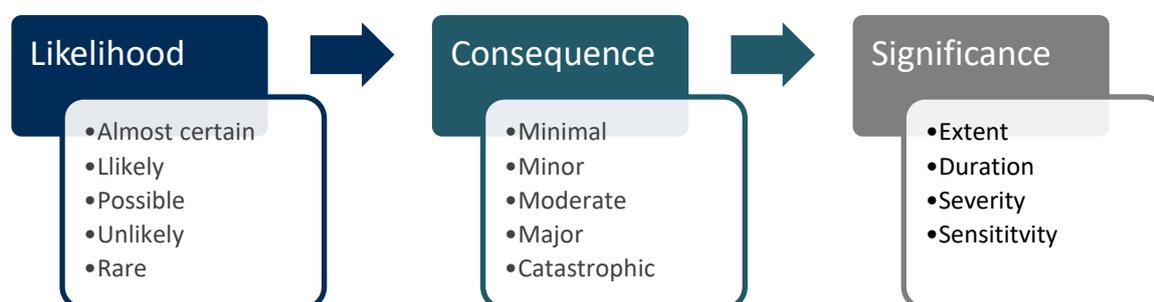


Source: Adapted from Vanclay, F., et al. (2015): p. 7

## 2.3 Impact assessment framework

The impact assessment presented in this report identifies and evaluates changes to existing social conditions due to the project. This includes the assessment of direct and indirect benefits and effects/impacts, as well as consideration of any cumulative impacts. Individual impact are evaluated in terms of the likelihood of the impact occurring, the magnitude of the consequence and the significance of the impact.

Figure 3: Social Impact assessment process



### 2.3.1 Likelihood of impact

The likelihood of a potential impact is a primary element of considering each social impact and its risk rating. The criteria used to determine the likelihood of any potential impact are described below in Table 1.

**Table 1: Likelihood of impact**

Likelihood	Description	Indicative Probability
Almost certain	Expected to occur, almost frequently	90 per cent
Likely	Could occur in many instances	70 per cent
Possible	Just as likely to happen as not	50 per cent
Unlikely	Limited occurrence	30 per cent
Rare	Very limited occurrence	10 per cent

### 2.3.2 Consequence of impact

The consequence of a potential impact is a key consideration to determine a risk rating. Each consequence is detailed below in Table 2.

**Table 2: Consequence**

Consequence	Description
Insignificant	No lasting detrimental or negligible impact on the community or environment.
Minor	Minor, short-term isolated impact on the community or environment.
Moderate	Modest, medium-term, widespread impact on the community or environment.
Major	Serious, long-term, widespread impact on the community or environment. Widespread community unrest or discomfort.
Catastrophic	Severe/ extensive on-going, widespread impact on the community or environment.

### 2.3.3 Significance of impact

Potential impacts are identified as part of the scoping process (see Section 6). They are then analysed based on the nature of the impact and its predicted severity. A mitigation strategy is proposed if necessary and finally both impacts are assigned a Social Risk Rating (SRR). The matrix used to calculate SRR is below in Table 3. The Social Risks for the proposed development are assessed using this matrix.

**Table 3: Social risk matrix**

		Consequence				
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	Almost certain	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	High
	Rare	Low	Low	Moderate	High	High

Source: NSW Planning & Environment (2017) | Vanclay, F; Esteves, A; Aucamp, I; Franks, D (2015)

# THE PROPOSAL

## 3.0 THE PROPOSAL

### 3.1 The site and surrounds

The subject site is located at 416 Berrima Road, Moss Vale NSW 2577, within the Wingecarribee Shire LGA. The property is legally defined as Lot 1, DP785111. The property's western boundary is defined by Berrima Road, which it fronts for 239.4 metres. The northern boundary is traced by a dirt track accessible via Berrima Road. Along the south of the property lies the Berrima private railway line.

Figure 4: Structure plan for 416 Berrima Road, New Berrima showing subject site (hashed in red)



Source: SBA Architects

The subject site about 14.68 ha of vacant, developable land (Figure 4). This land is currently zoned as IN1 General Industrial zone and is a part of the Moss Vale Enterprise Corridor.

The subject site is 1.6 kilometres south-east of New Berrima village.

### 3.2 The proposed development

The proposed development will seek to establish a new brick factory at the site. New Brick making facility will replace existing operations at 1 Oxleys Hill Road Bowral. The development is required to upgrade production capacity.

Development consent is being sought for:

- Construction of a dry press bricks plant with a reduction kiln, consisting of:
  - 26,145 sqm factory building. Standard industrial construction. Will include factory amenities.
  - A laboratory and office
  - A raw material shed, (approximately 5,550 sqm), yard storage and an export yard and container area
  - Carpark with 59 spaces.
- Operation of the site facility up to 24 hours per day, 7 days a week with no restrictions (predominantly for the operation of the kilns).

**Figure 5: Proposed brick factory site plan**



Source:

### 3.3 Access

The property is currently accessible from Berrima Road to the west and the south. To the west is a bitumen entrance to the property. The site is to be accessed through a single combined vehicular access, which will run via the future access road for the northern quarry, along the northern boundary of the site. This would connect the site with Berrima Road to the west.

Included in the development plans is the construction of a carpark with 59 spaces (including disabled parking). A Transport Assessment, prepared by Ason for this proposal found that under a cumulative assessment of the approved quarry, the proposed masonry plant and the proposed brickmaking factory, there would a total future total traffic generation of 68 vehicles (22 light vehicles and 46 heavy vehicles) during the peak hours.

### **3.4 Future employment**

The new brickmaking plant will include a modest increase in direct employment (workers employed by the plant) over the existing plant in Bowral (40 FTE jobs versus 35 FTE jobs at the existing plant). The construction of plant will also generate a substantial amount of construction job-hours. The proposal represents a significant potential contribution to local economic activity.

# POLICY CONTEXT

## 4.0 POLICY CONTEXT

There are several state and local government policies that influence consideration of the social impact of the proposal, this includes the guidelines for undertaking social impact assessment for state significant development, relevant NSW Government planning documents, Wingecarribee local environmental plan and the Wingecarribee Community Strategic Plan.

### 4.1 State Government

#### 4.1.1 South East and Tablelands Regional Plan 2036

The South East and Tablelands Regional Plan 2036, drafted in 2017, is a 20-year blueprint for future growth and prosperity across the wider region. The strategy’s vision for the South East and Tablelands Region is: *“A borderless region in Australia’s most geographically diverse natural environment with the nation’s capital at its heart.”*

The plan sets four key goals to achieve this vision:

- A connected and prosperous economy
- A diverse environment interconnected by biodiversity corridors
- Healthy and connected communities
- Environmentally sustainable housing choices.

**Table 4 Objectives and strategies of the South East and Tablelands Regional Plan 2036**

Objective/Strategy	Extracts from the Plan
Goal 1: A connected and prosperous economy Direction 4: Leverage growth opportunities from Western Sydney	<b>4.1</b> Foster initiatives to promote the South East and Tablelands as a suitable place for businesses to relocate.  <b>4.2</b> Maintain a supply of appropriately serviced employment land to create opportunities for new industrial development
Wingecarribee Local Government Narrative Economy and Employment goals	Capitalise on the land availability in the Moss Vale Enterprise Corridor to attract industry and investment

Goal 1 and the Wingecarribee Local Government Narrative outlines a direction to develop the Moss Vale Enterprise Corridor, of which the site is a part, to become an industry and investment hub. As such, the goals of the proposed development are in consistent with the intent of the Regional Plan. By relocating and expanding locally, this project will strengthen rural communities by maintaining substantial employment opportunities.

#### 4.1.2 NSW Social Impact Assessment Guideline September 2017

This guideline provides direction on assessing the both positive and negative social impacts created by State significant resource projects in the context of the environmental impact assessment (EIA) process under the Environmental Planning and Assessment Act 1979 (EP&A Act).

The objectives of this guideline are to:

- Provide a clear, consistent and rigorous framework for identifying, predicting, evaluating and responding to the social impacts of State significant resource projects, as part of the overall EIA process
- Facilitate improved project planning and design through earlier identification of potential social impacts
- Promote better development outcomes through a focus on minimising negative social impacts and enhancing positive social impacts
- Support informed decision-making by strengthening the quality and relevance of information and analysis provided to the consent authority
- Facilitate meaningful, respectful and effective community and stakeholder engagement on social impacts across each EIA phase, from scoping to post-approval
- Ensure that the potential social impacts of approved projects are managed in a transparent and accountable way over the project life cycle through conditions of consent and monitoring and reporting requirements.

This guideline applies to all applications for development consent for State significant resource projects where the Secretary's Environmental Assessment Requirements (SEARs) are issued after the date of publication (September 2017). Thus, this SIA has been prepared to comply with this guideline.

#### **4.1.3 NSW Draft Future Transport Strategy 2056 March 2018**

The NSW Draft Future Transport Strategy 2056, drafted in 2018 is a suite of strategies and plans for transport developed together with the Greater Sydney Commission's Sydney Region Plan, Infrastructure NSW's State Infrastructure Strategy, and the Department of Planning and Environment's regional plans.

The plan states an intent to invest in regional transport in order to provide manufacturers and producers with the opportunity to participate in the global economy through connections to domestic and international consumer markets. This is supported by the Regional NSW Services and Infrastructure Plan (March 2018), which promises to support visionary freight and port projects which will better connect regional NSW to global markets.

The proposed development seeks to benefit from the access to the nearby Hume Motorway strategic transport link. The proposal supports job growth in the vicinity of multiple Regional NSW transport initiatives for investigation, including the Sydney-Canberra Faster Rail Improvements, Moss Vale to Unanderra and Coniston Junction rail improvements and North Coast Line between Newcastle and Stroud Road.

## **4.2 Local Government**

### **4.2.1 Wingecarribee Local Environmental Plan 2010**

The Wingecarribee Local Environmental Plan 2010 outlines the objectives of each zone. The site is located on an IN1 General Industrial zone. The objectives of this zone are:

- To provide a wide range of industrial and warehouse land uses
- To encourage employment opportunities
- To minimise any adverse effect of industry on other land uses
- To support and protect industrial land for industrial uses
- To allow a range of non-industrial land uses, including selected commercial activities, that provide direct services to the industrial activities and their workforce or that, due to their type, nature or scale, are appropriately located in the zone without impacting on the viability of business and commercial centres in Wingecarribee

- To ensure that new development and land uses incorporate measures that take account of their spatial context and mitigate any potential impacts on neighbourhood amenity and character, or the efficient operation of the local or regional road system.

The proposed development is generally consistent with the intent of the IN1 General Industrial zone .

#### **4.2.2 Wingecarribee Local Planning Strategy 2015-2031 (adopted 2016)**

The strategy aims to identify a long-term direction for the future development of the Shire to guide any future proposed amendments to the Local Environmental Plan (LEP), or to the Development Controls Plans (DCPs) which support it, can be based.

The strategy provides a ‘snapshot’ of the Shire in 2015, identifies the key issues like to most affect the Shire over the next 16 years to 2031 and offers land use options which meet their regional development obligations while also respecting community priorities and goals. Some of the broad topics covered include the natural environment, rural lands, housing and infrastructure needs, managing the built environment and amendments to the WLEP 2010.

Housing projections outlined in the strategy forecast some growth, which must be supported by sufficient infrastructure and local jobs. The proposed development seeks to retain and contribute to jobs growth in Wingecarribee.

#### **4.2.3 Wingecarribee Regional Economic Development Strategy 2018-2022 and supporting analysis**

The economic strategy presents a vision where,

*“Wingecarribee will be a region with sustainable development underpinned by its high liveability attracting residents and businesses... building on its strengths in agriculture and manufacturing, education and health care.”*

The strategy seeks to build on the region’s endowments, core competencies, and specialisations to guide investment over the next four years.

The strategy outlines several actions and projects to achieve four aims:

1. Enhance liveability of the Wingecarribee region
2. Facilitate the development of agriculture as a key strength and specialisation and grow the visitor economy based on food, wine and events
3. Grow the education, health and aged care sectors
4. Strengthen the manufacturing base and monitor opportunities in the natural resource sector.

The supporting analysis states that the Wingecarribee LGA is to retain a specialisation in several manufacturing sub-sectors and expressed an interest in attracting other manufacturing industries to relocate to Wingecarribee. There is a strong interest in supporting the manufacturing industry and broadening the region’s economic base to reduce reliance on traditional agriculture and services.

#### **4.2.4 The Wingecarribee Shire Community Strategic Plan 2031 (drafted 2017)**

The aim of the Wingecarribee Shire Community Strategic Plan 2017 is to encourage Council, the community and other agencies to work together to deliver on community’s vision for the future. This plan is an updated version of the Wingecarribee 2031+ Community Strategic Plan (2010).

This plan encourages collective responses to emerging challenges and opportunities, and deliverance of outcomes that benefit the whole community. The principles and values that underpinned the framework for developing this plan are social justice (equity, access, participation and rights) and sustainability.

#### **4.2.5 Moss Vale Enterprise Corridor Development Control Plan 2008**

The Moss Vale Enterprise Corridor Development Control Plan 2008 applies to the subject site. The development intent of the Enterprise Corridor is to cater for conventional light and general industrial development to meet local and regional demands for industrial land. It is also anticipated to accommodate business park commercial development and larger scale freight storage and distribution operations associated with existing rail infrastructure and a possible intermodal freight terminal.

The plan sets out several principles including:

- To facilitate the development of the Moss Vale Enterprise Corridor for employment uses
- To conserve and manage areas of environmental significance
- To protect important Aboriginal heritage values
- To ensure development adopts sound urban design and sound environmental management practices
- To protect the scenic amenity of the Moss Vale area
- To protect the amenity of surrounding rural and residential areas.

The proposed development is generally consistent with the above objectives.

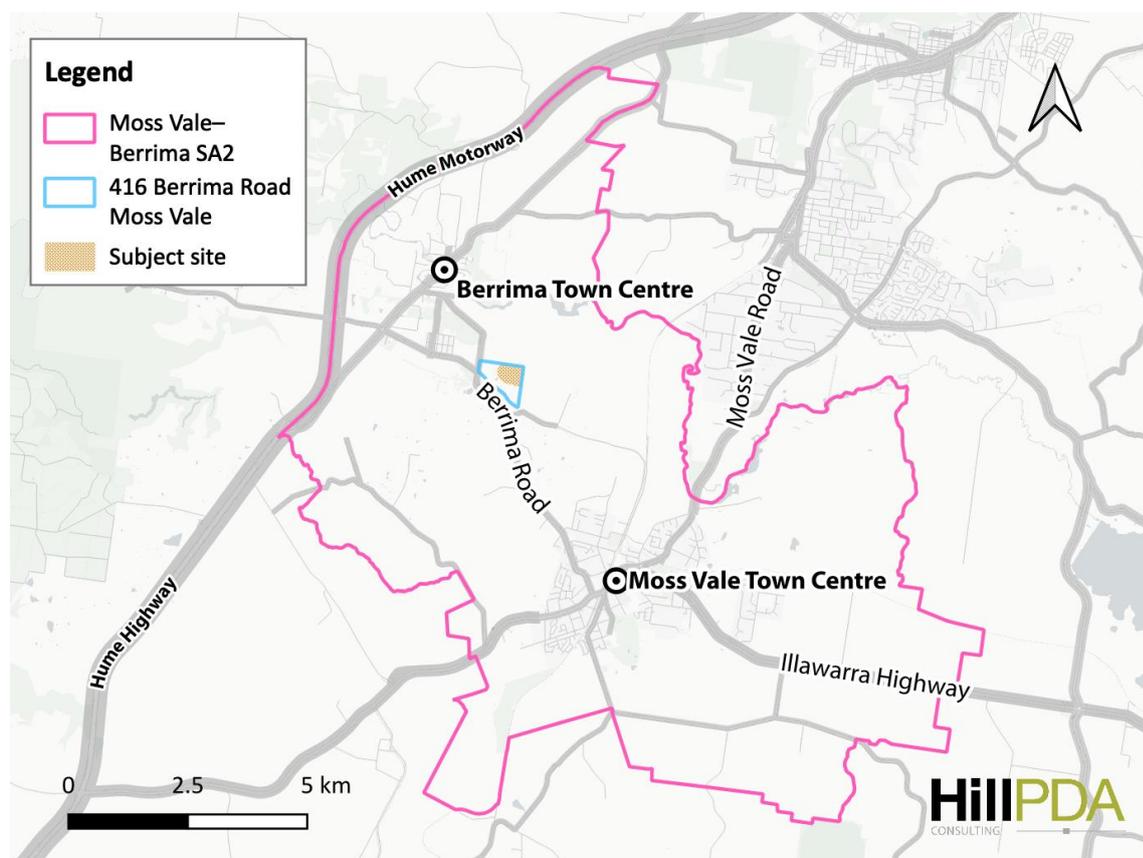
# COMMUNITY PROFILE

## 5.0 COMMUNITY PROFILE

### 5.1 Definition of study area

For the purposes of this demographic profile, the study area has been defined as Moss Vale-Berrima Statistical Area Level 2 (SA2) under the Australian Bureau of Statistics Main Statistical Area Structure. The border of the Moss-Vale Berrima SA2 (the study area) in relation to the subject site is seen in Figure 6.

Figure 6: Study area and subject site



### 5.2 Demographic profile

Presented below in Table 5 is a demographic overview of the Moss Vale-Berrima SA2, including key statistics on the population compared with the Rest of NSW, the statistical area encompassing all of NSW outside of Greater Sydney Greater Capital City Statistical Area (GCCSA).

Table 5: Moss Vale-Berrima SA2 demographic overview

	Moss Vale-Berrima SA2	Rest of NSW (GCCSA)
Population	9797	2,643,636
Median Age	43	43
Families	2,570	693,180
Average children per family	0.7	0.7
Households	4,276	1,203,865

	Moss Vale-Berrima SA2	Rest of NSW (GCCSA)
Average people per household	2.4	2.4
Median weekly household income	\$1,241	\$1,168
Median monthly mortgage repayments	\$1,733	\$1,590
Median weekly rent	\$320	\$270

Source: ABS Census 2016

### 5.3 Existing residential profile

#### 5.3.1 General characteristics

In the 2016 census, there were 9,797 people living in Moss Vale-Berrima SA2. Of these, 48.4 per cent were male and 51.6 per cent were female, which is largely reflective of the gender proportion of regional NSW.

#### 5.3.2 Age structure

The median age for Moss Vale-Berrima SA2 is the same as the median age for the Rest of NSW (GCCSA). Indeed, accordingly to the 2016 Census, the age structure of these two areas are very similar despite the difference in scale. Both statistical areas exhibit an aging population trend, where there is a substantial proportion of the population aged 45-70 years old.

Figure 6 Age by five-year group



Source: ABS Census Tablebuilder 2016

#### 5.3.3 Households and family composition

The household type proportions in the Moss Vale- Berrima SA2 are very similar to the proportions in the Rest of NSW (GCCSA). In both areas, family households are the most prevalent, but there is also a substantial number of lone person households, which are marginally more common in Moss Vale-Berrima SA2 than the rest of regional NSW.

The family composition proportions in the Moss Vale- Berrima SA2 are very similar to the proportions in the Rest of NSW (GCCSA). One parent families are uncommon, and couple families with or without children make up most family households.

**Figure 7: Household structure**

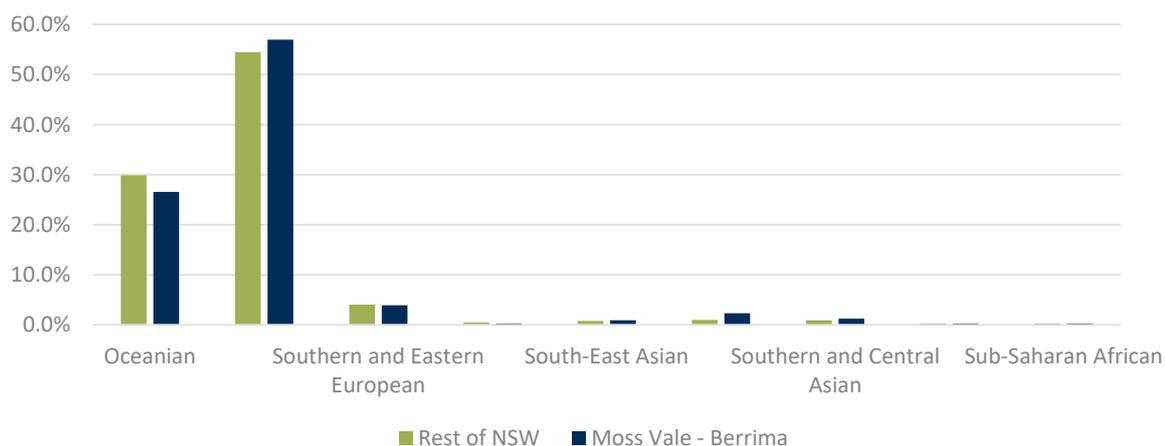


Source: ABS Census Tablebuilder 2016

### 5.3.4 Ancestry

The demographic profile indicates two significant groups who identify as Australian and North-West European. As seen in Figure 8, Moss Vale-Berrima SA2 had a Moss Vale-Berrima has a similar per centage of those with Southern and Eastern Asian ancestry in comparison to Greater Sydney. The most common ancestries are English (31 per cent) and Australian (28.9 per cent). There are 2.6 per cent of residents who identify with Aboriginal and/or Torres Strait Islander ancestry, which is lower than the Rest of NSW (GCCSA) with 5.5 per cent).

**Figure 8: Ancestry – first response**



Source: ABS Census Tablebuilder 2016

### 5.4 Social advantage and disadvantage

The Socio-Economic Indices for Areas (SEIFA) has been developed by the ABS to provide an overview of social and economic wellbeing and welfare of communities across a range of spatial scales. The SEIFA measures the

relative level of socio-economic advantage and disadvantage based on various census characteristics, such as income, education, unemployment and occupations. In the context of this Index, a lower score indicates an area that is relatively disadvantaged compared to an area with a higher score. Table 6 below identifies the index rankings and quantiles.

**Table 6: SEIFA rankings and quantiles**

Measure	Interpretation
Rank	To determine the rank of an area, all the areas are ordered from lowest score to highest score. The area with the lowest score is given a rank of 1; the area with the second-lowest score is given a rank of 2 and so on, up to the area with the highest score which is given the highest rank.
Decile	Deciles divide a distribution into ten equal groups. In the case of SEIFA, the distribution of scores is divided into ten equal groups. The lowest scoring 10 per cent of areas are given a decile number of 1, the second-lowest 10 per cent of areas are given a decile number of 2 and so on, up to the highest 10 per cent of areas which are given a decile number of 10.
Per centile	Per centiles divide a distribution into 100 equal groups. In the case of SEIFA, the distribution of scores is divided into 100 equal groups. The lowest scoring 1 per cent of areas are given a per centile number of 1, the second-lowest 1 per cent of areas are given a per centile number of 2 and so on, up to the highest 1 per cent of areas which are given a per centile number of 100.

Source:

**Table 7: Moss Vale-Berrima SA2 SEIFA score and decile**

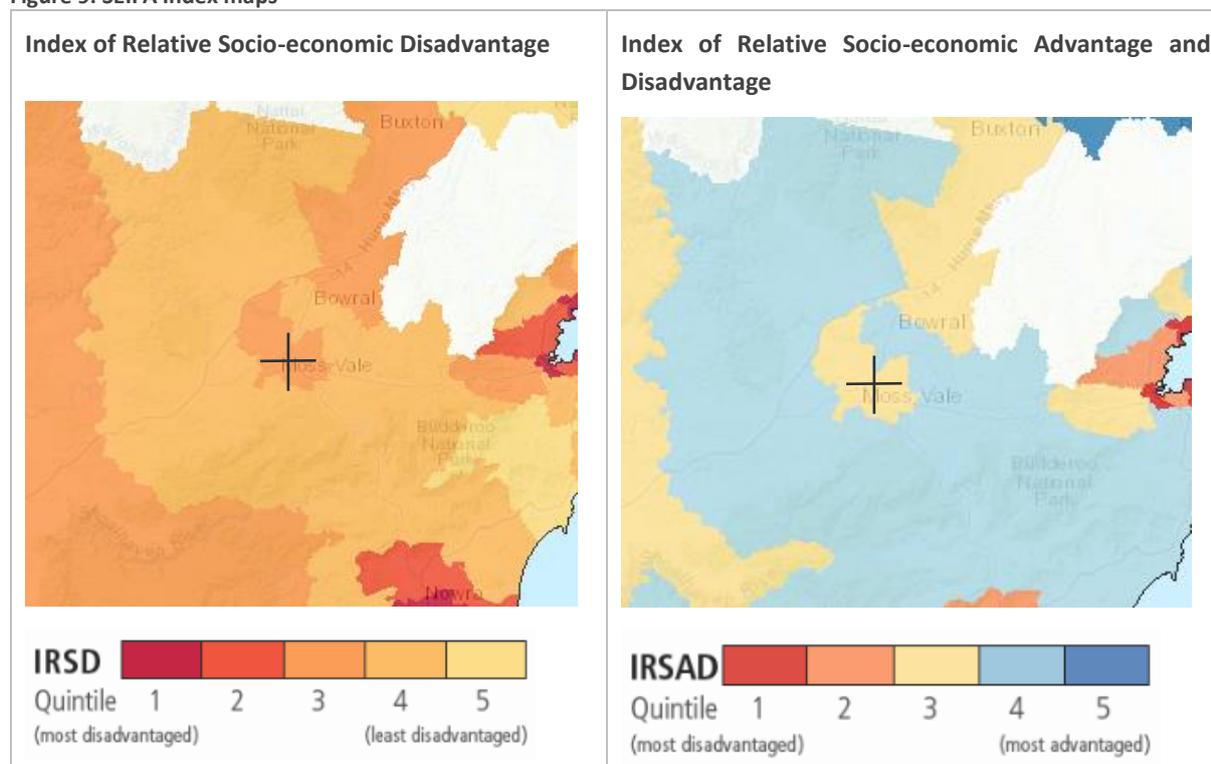
Moss Vale-Berrima SA2						
	Australia			NSW		
	Rank	Decile	Per centile	Rank	Decile	Per centile
Disadvantage	1010	5	47	290	6	52
Advantage and Disadvantage	932	5	43	256	5	46
Economic Resources	1264	6	58	339	7	61
Education and occupation	997	5	46	268	5	48

Source: ABS 2016

The area was ranked around the middle of SA2s for all advantage and disadvantage when compared with other SA2s across NSW and nationally.

Economic resources are the factors used in producing goods or providing services. In other words, they are the inputs that are used to create things or help you provide services. The economic resources index analyses 15 variables to measure a wide range of concepts, such as: household income, housing expenditures (e.g. rent) and wealth (e.g. home ownership). At 61 per cent, Moss Vale-Berrima has above average economic resources compared to other statistical areas across NSW but could see further growth from further investment in the Moss Vale enterprise corridor.

Figure 9: SEIFA Index maps



Source:

## 5.5 Vulnerable populations

The study area has a very small population of Indigenous Australians, about half of the proportion of represented in the Rest of NSW (GCCSA).

At the 2016 Census, thirteen per cent of Moss Vale-Berrima residents spoke a language other than English at home, which is only 0.1 per cent more than the Rest of NSW (GCCSA). Furthermore, less than 1 per cent of the Moss Vale-Berrima SA2 population did not speak English well or at all.

Approximately 6.6 per cent of the residents in Moss Vale – Berrima SA2 reported that they required assistance with core activities at the 2016 Census, slightly lower than 6.8 per cent across the Rest of NSW (GCCSA),

Approximately 3.7 per cent of residents of Moss Vale – Berrima lived overseas 5 years before the 2016 Census, a higher rate than the Rest of NSW (GCCSA) with 2.2 per cent, suggesting a slightly higher population of more recent migrants in the area.

The study area has a similar proportion of low and very low-income earners to the Rest of NSW (GCCSA). There are no significant vulnerable populations in this study area.

## 5.6 Projected population and housing growth

To estimate the future residential population of the proposed development, HillPDA has considered the Wingecarribee LGA population projections released by the NSW Department of Planning Industry and Environment. Between 2016 and 2036, the population is expected to increase from 47,750 to 51,800, up 8.48 per cent.

As stated in the analysis of the Moss Vale-Berrima SA2 age structure, there is an aging population trend for the general area. Between the years 2016 and 2036 projections show the:

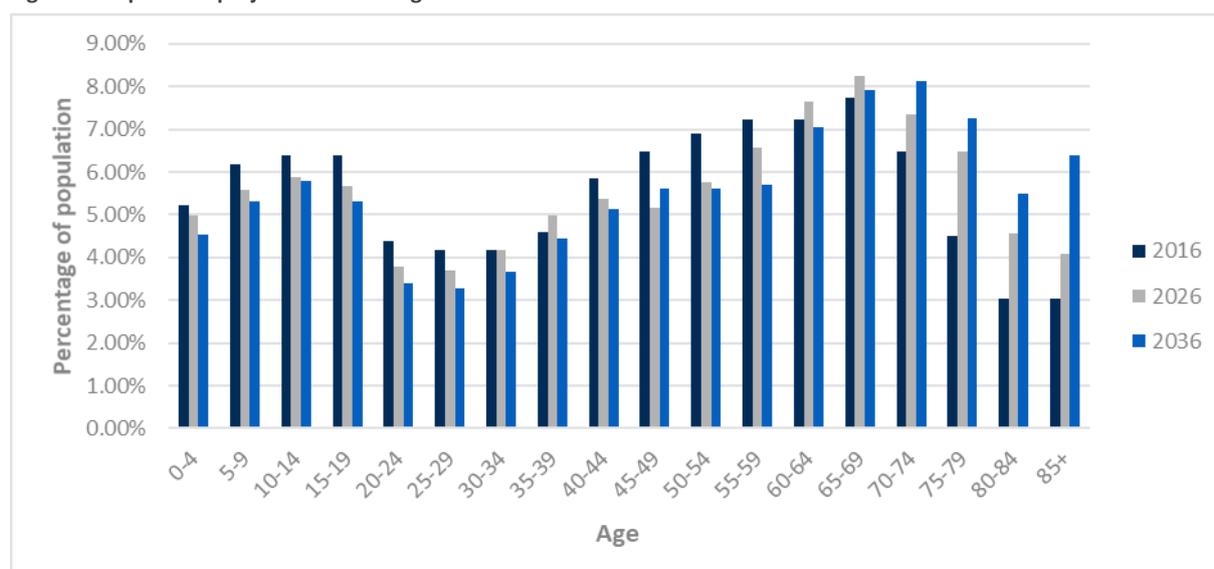
- Over 65 population is to increase from 24.79 per cent to 35.17 per cent

- Overall working population (25-64 years) is to decrease from 46.65 per cent to 40.68 per cent
- Younger working population (25-39 years) is to decrease from 12.97 per cent to 11.40 per cent
- Young dependent population (0-15 years) is to decrease from 24.16 per cent to 20.97 per cent

The working population is projected to significantly decrease. To secure the economic health of an area, it is imperative to attract and retain members of this population. Providing quality jobs is a part of this process. If approved, this project may play a part in this process.

This population projection will be used in Section 6 of this report to inform the social impact assessment.

**Figure 7: Population projections for Wingecarribee Shire LGA**



Source: NSW DPIE 2019

Suburbs within the study area are also expected to see significant growths in dwelling demand by 2031, as summarized in Table 8. Moss Vale is expected to see significant greenfield development, which will create considerable demand for jobs and infrastructure.

**Table 8: Projected additional dwelling demand in Moss Vale-Berrima SA2 (Wingecarribee Local Planning Strategy 2015-2031 [drafted 2016])**

Regions within Moss Vale-Berrima SA2	Additional Dwelling demand by 2031
Moss Vale	1,000 - 2,000
South Moss Vale	500 - 1,000
Berrima	100 - 250

Source: Wingecarribee Shire Council 2016

## 5.7 Employment

Data from Census 2016 indicates that the main employing industries for residents of the Moss Vale-Berrima SA2 is Health Care and Social Assistance (11.98 per cent), Construction (10.69 per cent) and Accommodation and Food Service (10.57 per cent). Interestingly, though not a main employing industry, Manufacturing is more prevalent in Moss Vale-Berrima SA2 (8.42 per cent) than in regional NSW (6.25 per cent), indicating a growing manufacturing niche in the Moss Vale-Berrima SA2.

**Table 9: Comparison of employment by industry**

	Moss Vale- Berrima (SA2)		Wingecarribee (LGA)		Rest of NSW (GCCSA)	
	Total	Per cent	Total	Per cent	Total	Per cent
Agriculture, Forestry and Fishing	119	2.9%	681	3.5%	62,555	5.9%
Mining	71	1.7%	227	1.1%	26,925	2.5%
Manufacturing	345	8.4%	1,438	7.3%	66,320	6.2%
Electricity, Gas, Water and Waste Services	58	1.4%	178	0.9%	14,086	1.3%
Construction	438	10.7%	2,065	10.5%	95,770	9%
Wholesale Trade	125	3%	509	2.6%	22,175	2.1%
Retail Trade	408	10%	1,994	10.1%	114,261	10.8%
Accommodation and Food Services	433	10.6%	1,853	9.4%	86,995	8.2%
Transport, Postal and Warehousing	198	4.8%	886	4.5%	43,985	4.1%
Information Media and Telecommunications	34	0.8%	232	1.2%	9,913	0.9%
Financial and Insurance Services	69	1.7%	469	2.4%	22,357	2.1%
Rental, Hiring and Real Estate Services	76	1.9%	428	2.2%	15,417	1.4%
Professional, Scientific and Technical Services	225	5.5%	1,373	7%	50,141	4.7%
Administrative and Support Services	163	4%	811	4.1%	35,924	3.4%
Public Administration and Safety	202	4.9%	896	4.6%	79,529	7.5%
Education and Training	378	9.2%	1,925	9.8%	99,607	9.4%
Health Care and Social Assistance	491	12%	2,582	13.1%	158,555	15%
Arts and Recreation Services	76	1.8%	314	1.6%	13,706	1.3%
Other Services	189	4.6%	844	4.3%	43,467	4.1%
<b>Total*</b>	<b>4,098</b>		<b>19,705</b>		<b>1,061,688</b>	<b>100%</b>

\*Total excludes Inadequately described/Not stated. Source: ABS 2016.

Residents within the Study Area are mostly evenly split between classification of employment, with the most popular professions being 17.5 per cent as Technicians and Trades Workers and 16.7 per cent employed as professionals. The remaining professions are remarkably evenly split. Of interest is the comparatively higher proportion of residents classified as Technicians and Trade workers (compared to the Rest of NSW GCCSA), which can be attributed to the Moss Vale Enterprise Corridor.

**Table 10: Comparison of employment by classification of occupation**

	Moss Vale-Berrima SA2		Wingecarribee LGA		Rest of NSW GCCSA	
	Total	Per cent	Total	Per cent	Total	Per cent
Managers	480	11.4%	2,993	14.7%	144,050	13.3%
Professionals	704	16.7%	4,169	20.6%	199,664	18.4%
Technicians & Trades Workers	736	17.4%	3,294	16.2%	163,683	15.1%
Community & Personal Service Workers	485	11.5%	2,233	11%	131,603	12.1%
Clerical & Administrative Workers	486	11.5%	2,323	11.4%	136,560	12.6%
Sales Workers	442	10.5%	2,002	9.8%	106,127	9.8%
Machinery Operators & Drivers	332	7.9%	1,189	5.85%	78,469	7.2%
Labourers	545	12.9%	2,112	10.4%	125,843	11.6%

	Moss Vale-Berrima SA2		Wingecarribee LGA		Rest of NSW GCCSA	
	Total	Per cent	Total	Per cent	Total	Per cent
<b>Total*</b>	<b>4,210</b>		<b>20,315</b>		<b>1,085,999</b>	

\*Total excludes Inadequately described/Not stated. Source: ABS 2016.

Unemployment in the SA2 is relatively low, with 3.73 per cent of residents unemployed, consistent with Wingecarribee on 3.84 per cent and well below the Rest of NSW GCCSA on 6.76 per cent (Table 11).

**Table 11 Employment Status**

	Moss Vale- Berrima (SA2)	Wingecarribee (LGA)	Rest of NSW (GCCSA)
Worked full-time	58.7%	57%	56.2%
Worked part-time	34.7%	36.1%	33.4%
Away from work	2.7%	3%	3.6%
<b>Total unemployed</b>	<b>3.7%</b>	<b>3.8%</b>	<b>6.8%</b>

Source: ABS 2016

The 2016 Census showed that residents within the study area tended to travel less for work (less than 30 km via road) than residents in the Wingecarribee LGA.

Slightly over 52 per cent of Moss Vale-Berrima SA2 residents travel within 10 kilometres of their homes for work in comparison to just over 48 per cent of Wingecarribee LGA residents. In Moss Vale-Berrima, just below 48 per cent of residents of working age commute at least 10 kilometres to their place of work and 16 per cent travelling at least 30 km.

This could be partly attributed to the industrial and agricultural focus of the Moss Vale Enterprise corridor, which looks to preserve and attract local industrial jobs. The proposed development supports this focus and goal of retaining local jobs.

**Table 12: Comparison of distance to from usual place of residence to place of work via road**

Distance to work place	Moss Vale – Berrima SA2		Wingecarribee LGA		Rest of NSW (GCCSA)	
	Total	Per cent	Total	Per cent	Total	Per cent
Nil distance	353	8.8%	2,506	13%	86,800	8.2%
Over 0 km to less than 2.5 km	771	19.2%	2,339	12.1%	163,383	15%
2.5 km to less than 10 km	971	24.2%	4,458	23.1%	330,055	31.3%
10 km to less than 30 km	1,271	31.6%	4,980	25.8%	264,816	25.1%
30 km to less than 50 km	71	1.8%	989	5.1%	94,393	9%
50 km to less than 250 km	559	13.9%	3,911	20.3%	94,828	9%
250 km and over	22	0.6%	124	0.6%	18,827	1.8%
<b>Total</b>	<b>4,018</b>		<b>19,307</b>		<b>1,053,102</b>	

Source: ABS 2016

## 5.8 Business statistics

The study area has a diverse range of industries among its registered businesses, with construction (31 per cent), professional scientific and technical services (21.1 per cent) and retail trade (15.6 per cent) among the dominant

industries. There is a large number of registered construction firms and retail trade firms in comparison in Moss-Vale Berrima in comparison to statistics in the Wingecarribee LGA and the rest of NSW (GCCSA).

**Table 13: Regional comparison of number of registered businesses by industry**

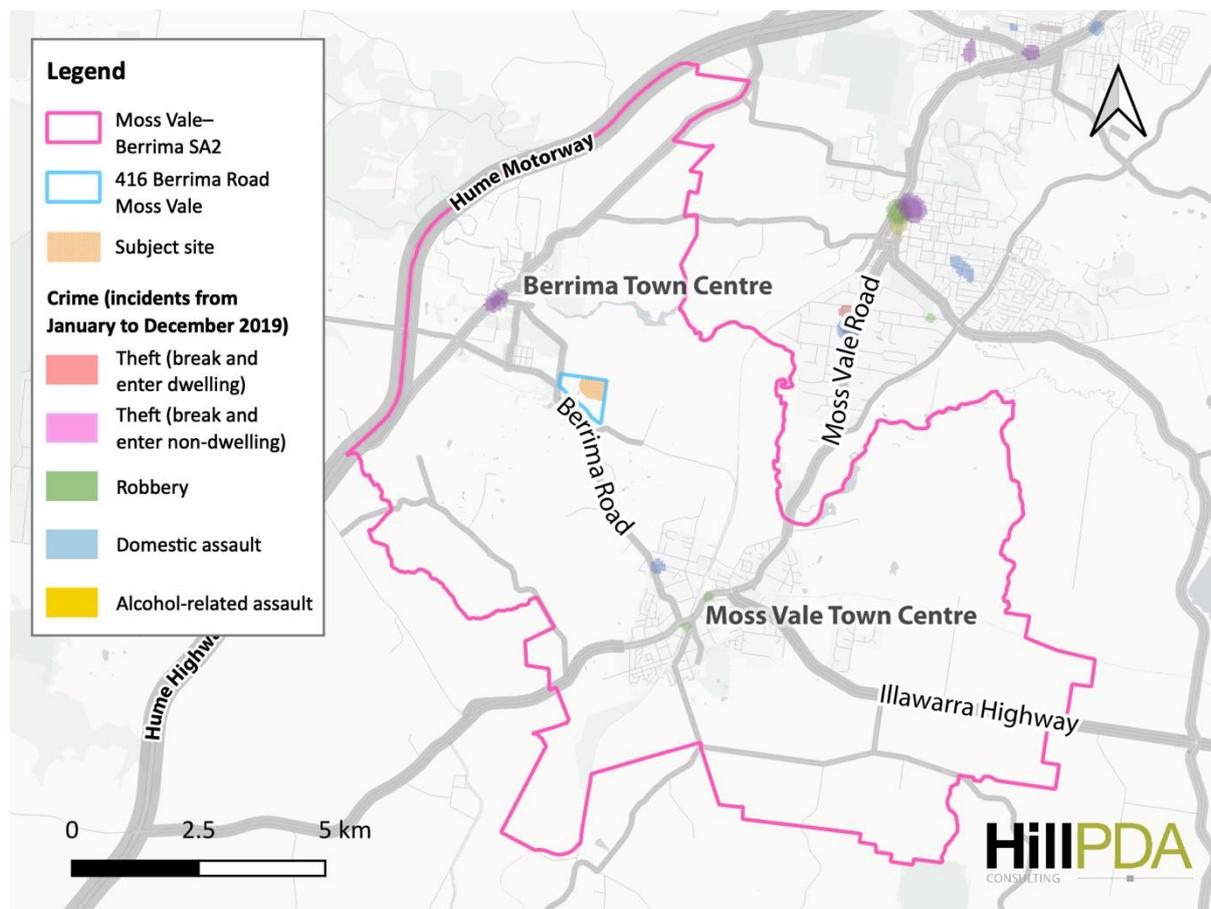
Description	Moss Vale- Berrima SA2		Wingecarribee LGA		Rest of NSW (GCCSA)	
	Total	Per cent	Total	Per cent	Total	Per cent
Agriculture, Forestry & Fishing	78	14.9%	545	10.1%	46,292	20%
Mining	0	0	16	0.3%	645	0.28%
Manufacturing	53	10.2%	232	4.3%	8,168	3.5%
Electricity, Gas, Water & Waste Services	9	1.7%	12	0.2%	802	0.3%
Construction	163	31.3%	915	17.1%	38,626	16.7%
Wholesale trade	33	6.3%	179	3.4%	5,806	2.5%
Retail trade	81	15.6%	366	6.8%	13,622	5.9%
Accommodation & food services	40	7.7%	224	4.2%	10,307	4.5%
Transport, Postal & Warehousing	45	8.6%	237	4.4%	12,397	4.5%
Information media & telecommunications	4	0.7%	47	0.9%	1,245	5.4%
Financial & insurance services	62	11.9%	424	7.9%	16,129	6.9%
Rental, Hiring, & Real Estate Services	78	14.97%	524	9.8%	20,086	8.7%
Professional Scientific & Technical Services	110	21.1%	720	13.4%	19,068	8.2%
Administrative & support services	51	9.8%	222	4.1%	7,126	3.1%
Public administration & safety	3	0.58%	14	0.3%	585	0.3%
Education & training	10	1.9%	76	1.4%	2,730	1.2%
Health care & social assistance	44	8.4%	273	5.1%	12,839	5.5%
Arts & recreation services	14	2.7%	93	1.7%	2,643	1.1%
Other services	49	9.4%	190	3.5%	10,753	4.6%
Currently unknown	11	2.1%	51	0.9%	1,572	0.7%
<b>Number of Businesses by Industry - Total</b>	<b>521</b>		<b>5360</b>		<b>231,441</b>	

Source: ABS 8165.0 Counts of Australian Businesses Jun 2013-2017; Economy and Industry 2011-18 Statistical Levels 2-4

## 5.9 Crime hotspots

Data from the NSW Bureau of Crime Statistics BOCSAR mapping tool covering the period between January and December 2019 is mapped below in Figure 8. This map shows that area nearby the site is relatively crime-free. There are no non-domestic assault hotspots in the Moss Vale- Berrima SA2 area. While there are small pockets of robbery and domestic assault in Moss Vale and theft (break and enter non-dwelling) in Berrima, these locations are distant from the subject site, so construction at the subject site should not contribute further to it.

Figure 8: Crime incidents within Moss Vale – Berrima SA2 (January to December 2019)



Source: Bureau of Crime Statistics (2020)

## 5.10 Summary of Key Findings

- Wingecarribee LGA projected population growth from 44,203 in 2011 to 55,136 in 2036. A significant portion of this population will become residents in the Moss vale-Berrima SA2, as emphasized by its projected dwelling growth. This population needs access to quality local jobs
- The study area currently has a low incidence of crime. Crime should not be significantly affected by this project given its distance from the many suburb centres
- The 2016 Census showed that residents within the study area tended to travel less for work (less than 30km via road) than residents in the Wingecarribee LGA. This could be partly attributed to the industrial and agricultural focus of the Moss Vale Enterprise corridor, which looks to preserve and attract local industrial jobs
- Of interest is the comparatively higher proportion of residents classified as technicians and trade workers (compared to the Rest of NSW GCCSA), which can be attributed to the Moss Vale Enterprise Corridor
- Interestingly, though not a main employing industry, manufacturing is more prevalent in Moss Vale-Berrima SA2 (8.42 per cent) than in Rest of NSW (GCCSA) (6.25 per cent), indicating a growing manufacturing niche in the Moss Vale-Berrima SA2.

SOCIAL  
INFRASTRUCTURE  
AUDIT

## 6.0 SOCIAL INFRASTRUCTURE AUDIT

The following section provides an overview of the social infrastructure and open space located within the study area. This audit has been informed by a desktop analysis of geographical data and resources, including data from the Australian Urban Research Institute, Wingecarribee Shire Council, the NSW Department of Education and the Australian Children’s Education and Care Quality Authority (ACECQA).

### 6.1 What is social infrastructure?

Social infrastructure is an asset that accommodates social services or facilities. Social infrastructure is an important aspect of society as it provides the community with tangible or perceived benefits linked to the safety, health and wellbeing of that community. It also links to the economic growth and the sustainability of the community, therefore playing a critical role in society.

Specifically, this report has been produced to address the needs of particular baseline infrastructure types, which include the following: schools, child care facilities, open space and community facilities.

For the purposes of clarity, this report excludes businesses such as retail or commercial services. While these facilities provide a valuable social function, the future provision of these businesses in any area is typically market-led and access to these services may involve a cost which can prevent some from accessing the services provided.

### 6.2 A catchment approach

Social infrastructure facilities generally operate at three levels of provision. These are local, regional and district. The different scales of infrastructure service different sized catchments. Catchments refer to both geographical areas and the size of the population serviced. For example, a primary school is intended to serve the local population, usually within walking distance. However, a university will cater for a much wider population.

In conducting the audit of social infrastructure, local and district facilities have been identified. Table 14 identifies the facilities included in the audit and the catchments that they serve.

**Table 14: Social infrastructure parameters of provision**

	Local (generally up to 20,000 people)	District (generally up to 50,000 people)
<b>Childcare and educational facilities</b>	Primary school Long day care Preschool Out of school hours care	Secondary school Combined school
<b>Active open space</b>	Playground Outdoor sport court i.e. tennis and basketball Oval/sport field	Multi-purpose community/ neighbourhood sports centre Indoor sport facilities
<b>Passive open space</b>	Neighbourhood open space and parks	

The proposed development will not have any direct implications on the demand for school places. Consequently, they have been excluded from the analysis.

#### 6.2.1 Child care and education

Child care facilities located in the immediate vicinity of the subject site may be sensitive receivers to potential impacts from the proposal. Additionally, it is important that there are adequate child care options nearby for workers requiring long term day care or occasional care.

The audit below in Figure 9 shows that there are limited child care facilities in close proximity to the subject site. In total, there are six child care centres, of which five are long day care centres. Moss Vale Public school also offers after school care, but there are currently no vacancies.

Figure 9: Child care within the Moss Vale-Berrima SA2

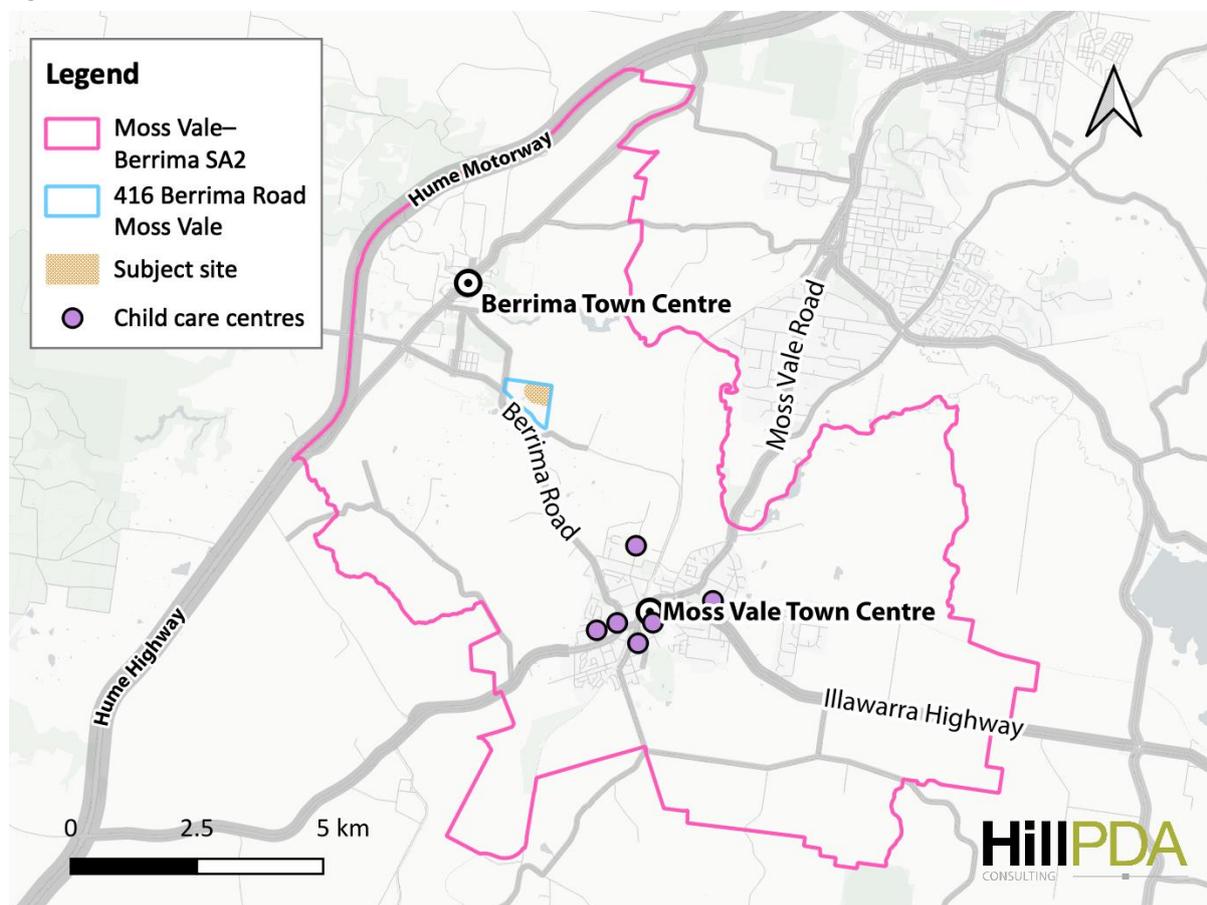


Table 15: Child care facilities within the Moss Vale-Berrima SA2

Category	Name	Address	Total Capacity
Long Day care	Southern Highlands Early Childhood Centre	50 Beaconsfield Road Moss Vale NSW 2577	46
	KU - Donkin Memorial Preschool	5 Donkin Ave Moss Vale NSW 2577	40
	KU Moss Vale Children's Centre	8 Ralfe St Moss Vale NSW 2577	52
	Rainbow Kindy Moss Vale	35 Spring Street MOSS VALE NSW 2577	32
	Wembley Road Preschool	10 Wembley Road MOSS VALE NSW 2577	50
After School Care	Moss Vale Out of School Hours	Moss Vale Public School Hall Moss Vale NSW 2577	70

Source: ACECQA (2020)

### 6.2.2 Passive and active recreation space

There are only two open space areas near the vicinity of the subject site; the playground of the New Berrima Community Centre, which is just outside the 800 m distance buffer from the site and the New Berrima Sportsground, which is less than 400 m from the site.

Figure 10: Open space near to the subject site

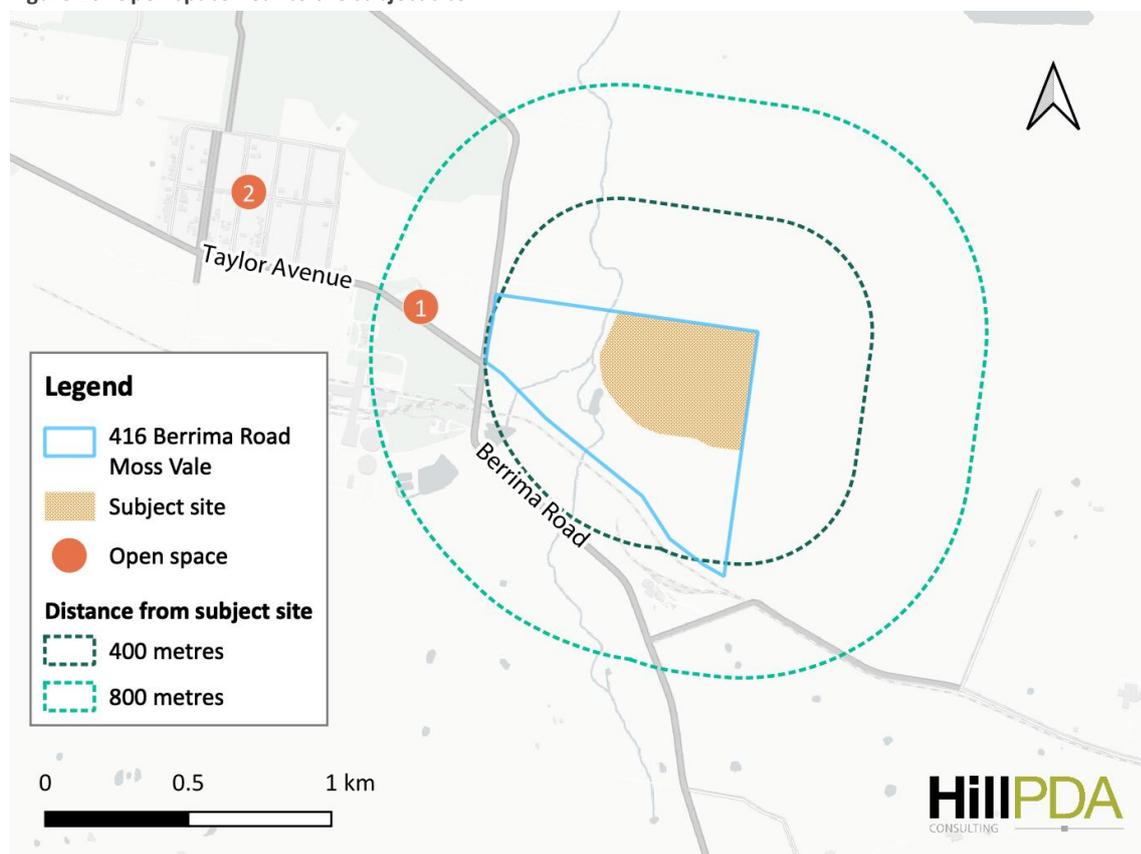


Table 16: Details of open space facilities within the Moss Vale-Berrima SA2

Map ID	Category	Name	Address	Status in LGA Parks Strategy	Level of service
1	Sports Ground	New Berrima Sports Ground	Taylor Ave New Berrima NSW 2577	Not listed	N/A
2	Community Parks	New Berrima Community Centre and Park	Cnr of Ennis Avenue and Sydney Street New Berrima NSW 2577	Listed	3

Source: Wingecarribee Shire Council (2020)

### 6.2.3 Community facilities

Within the Moss Vale- Berrima SA2, there are four community facilities, including a branch library, two community centres and a community hall. Of these facilities, only the New Berrima Community Centre sits within a 1km radius of the subject site. The facilities (excluding the library) have a total holding capacity of 257 people.

Figure 11 Community facilities in Moss Vale-Berrima SA2

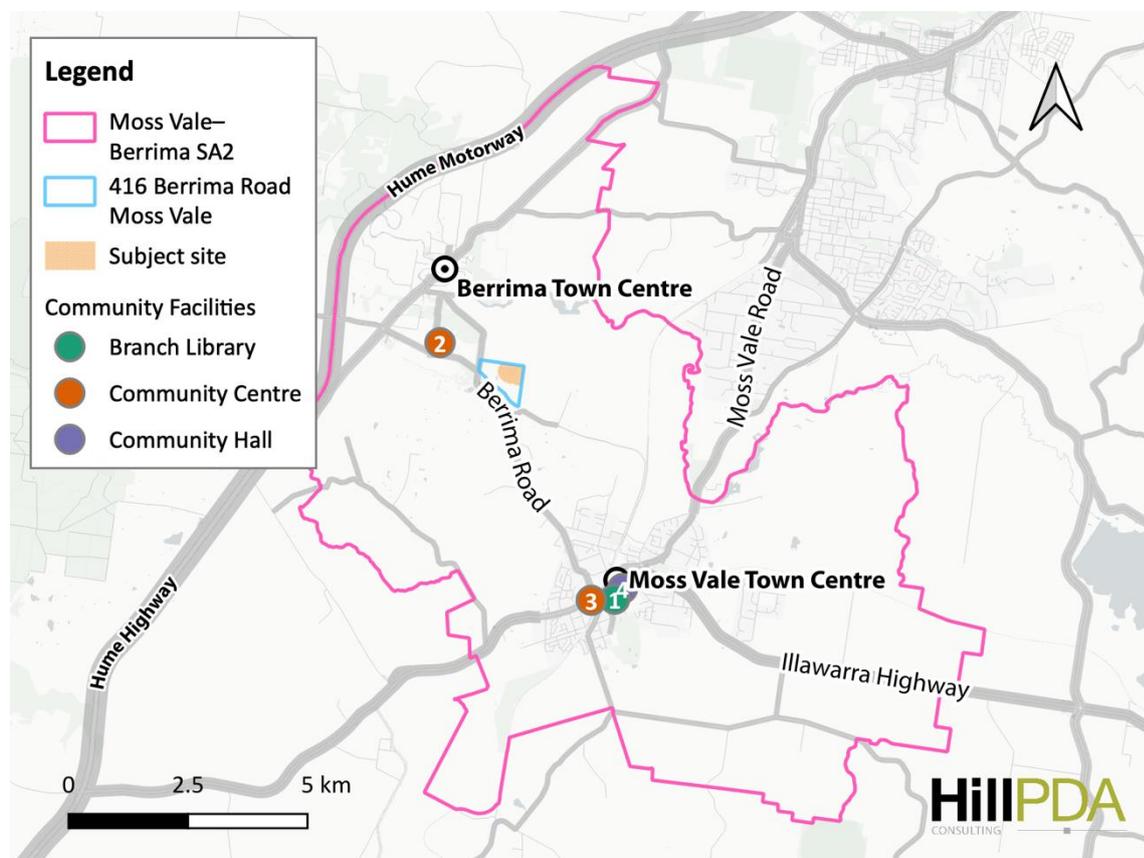


Table 17: Details of community facilities in Moss Vale-Berrima SA2

Map ID	Name	Address	Capacity	Type
1	Moss Vale Branch Library	68 Elizabeth Street Moss Vale NSW 2577	No hireable facilities	Branch Library
2	New Berrima Community Centre	Cnr Sydney Street & Ennis Avenue, New Berrima NSW 2577	57 (Hall)	Community Centre
3	Moss Vale Senior Citizens & Community Centre	14 Queen Street, Moss Vale NSW 2577	100 (Hall + meeting room)	Community Centre
4	Civic Centre Theatrette	Donkin Avenue, Moss Vale NSW 2577	100 (Hall)	Community Hall

Source: Wingecarribee Shire Council (2020)

# COMMUNITY VIEWS

## 7.0 COMMUNITY VIEWS

### 7.1 Engagement approach

HillPDA was commissioned to undertake community engagement for the proposed development. Stakeholders consulted included both nearby residents and businesses, as well as the New Berrima community-at-large.

The engagement methods and outcomes are detailed in a separate report. The engagement included and advertised invitation for submissions, two drip-in information sessions and targeted phone calls to key stakeholders.

### 7.2 Engagement outcomes

A summary of key items and concerns raised that are relevant to this social impact assessment is provided in Table 18 below. Other impacts raised by the community are considered in the EIS.

Table 18: Key Issues raised

Broad category	Key item	Concerns raised by community
Amenity	Vegetation	<ul style="list-style-type: none"> <li>Request for 20m buffer around whole site to provide visual separation to neighbouring uses</li> <li>Desire for native tree species to be used on site</li> <li>Requests for tree planting timing to allow for growth prior to development</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>Truck movement and reversing impact to New Berrima community and along Taylor Avenue</li> <li>Operational noise causing disturbance</li> </ul>
	Dust	<ul style="list-style-type: none"> <li>Raw material movements will generate dust</li> <li>Truck movements on access road causing dust</li> <li>Potential contamination of natural water courses</li> </ul>
	Sustainability	<ul style="list-style-type: none"> <li>Use of a non-reflective roof material is preferable; A green roof was suggested</li> </ul>
	Visual	<ul style="list-style-type: none"> <li>Potential for light projection at night causing disturbance and reduced amenity</li> </ul>
Community	Social	<ul style="list-style-type: none"> <li>Would like to see local people employed at the Brickworks</li> <li>Would like existing Brickworks employees to be retained</li> </ul>
Heritage	Heritage	<ul style="list-style-type: none"> <li>Protection of Aboriginal heritage items</li> </ul>
Economic	Livelihood	<ul style="list-style-type: none"> <li>Support New Berrima employment opportunities</li> <li>Support for potential increase in visitors to New Berrima store</li> </ul>

Source: HillPDA Engagement Outcomes Report

### 7.3 Engagement implications

The engagement report details suggested refinements to the proposed development which respond to the community engagement outcomes.

The table below is based upon key themes of concern that the community raised that are relevant to this assessment and details suggested refinements to the proposal. The Engagement Outcomes Report notes that a number of the concerns can be addressed by clarification of the impact and mitigation strategies encompassed in the development.

**Table 19: Stakeholders’ suggestions for the proposed development**

	Key items raised by stakeholders	Comment
Amenity	Vegetation	<ul style="list-style-type: none"> <li>Provide greater certainty for community around plans for retaining vegetation and greater information around proposed plantings to ensure that amenity is maintained and enhanced</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>An acoustic study has found that operational noise is within EPA thresholds and that vehicle movements will not produce additional noise disruption above tolerances. Ensure information is available to inform community of acoustic mitigation measures in place and findings of acoustics report</li> </ul>
	Dust	<ul style="list-style-type: none"> <li>Reiterate that raw materials will only be transported from the neighbouring quarry to the brickworks and not on local roads (once new quarry is operational)</li> <li>Ensure that all raw materials handling and brickmaking is undertaken indoors</li> <li>Ensure that covers will be placed on raw materials while they are being transported</li> <li>Ensure that the access road will be sealed prior to the commencement of truck movements</li> <li>Highlight any water treatment measures to ensure runoff is not polluting natural watercourses</li> </ul>
	Visual	<ul style="list-style-type: none"> <li>Reiterate the evening operations will be limited to the operation of the kiln and minor works, which occur indoors</li> <li>Consider providing a light spill plan demonstrating where lighting will be used during evening operations, highlighting the absence of flood lighting on the storage yard</li> </ul>
Community	Social	<ul style="list-style-type: none"> <li>Reiterate key messaging around local employment opportunities on and off site (direct and indirect)</li> <li>Note, if it is the case, that existing Brickworks employees would be transferred to the new location</li> </ul>
Heritage	Heritage	<ul style="list-style-type: none"> <li>Ensure information is available to inform community of Aboriginal heritage unexpected finds protocol</li> <li>Ensure information is available to inform community of actions being implemented to avoid/preserve aboriginal heritage items</li> </ul>

Source: HillPDA Engagement Outcomes Report

# SOCIAL IMPACT ASSESSMENT

## 8.0 IMPACT ASSESSMENT FRAMEWORK

The impact assessment presented in this report identifies and evaluates changes to existing social conditions due to the project. This includes the assessment of direct and indirect benefits and effects/impacts, as well as consideration of any cumulative impacts.

The assessment process that was undertaken to determine the overall significance of impacts is described in Section 2.0. The following sections outline the criteria that underpin each of the assessment components that contribute to the assessment framework. Professional judgement and experience is applied on a case-by-case basis to identify the significance of impact on the social environment.

As noted in Section 2.3.3 the social risk matrix is the primary tool for assessing the social impact of a development. Each impact has been analysed based on the nature of the impact and its predicted severity. A mitigation strategy is proposed if necessary and finally both impacts are assigned a Social Risk Rating (SRR). The matrix used to calculate SRR is shown in Section 2.3 (Table 3).

## 8.1 Overview of impacts

Table 6 provides the assessment of the social risk of each social impact expected to result from the proposal. This section includes an assessment of the likelihood and consequences of each impact which are input into the social risk matrix (section 2.3.3) to provide a significance rating. Mitigation measures have been provided for negative impacts.

**Table 6: Significance of social impacts**

Impact theme	Impact detail	Stakeholders impacted	Likelihood	Consequence	Significance	Mitigation
Amenity	Acoustic	Surrounding residents, businesses, sports ground users	Unlikely	Minimal	Low	<ul style="list-style-type: none"> <li>None required, but proactive mitigation measures specified in acoustic assessment are recommended.</li> </ul>
	Visual	Surrounding residents and businesses	Rare	Minimal	Low	<ul style="list-style-type: none"> <li>Consider producing a light spill plan to show impact of lighting during evening operations</li> </ul>
	Odour	Surrounding residents and businesses	Unlikely	Minimal	Low	<ul style="list-style-type: none"> <li>Adopting best practice measures to minimise HF emissions from the kiln</li> <li>Commissioning of a new kiln which will relatively improve fuel consumption and emissions profile</li> <li>Maintaining a design stack height of 35m, which will aid pollutant dispersion</li> <li>Use of raw material stockpile and crusher enclosures and providing sealed haulage surfaces.</li> </ul>
Access	Road networks	Local residents, businesses and road users	Unlikely	Minor	Low	<ul style="list-style-type: none"> <li>Upgrades to the intersections of Berrima Road/Taylor Avenue and the heavy vehicle access to the recommended standards</li> </ul>
Built environment	Public domain	Local residents	Rare	Minor	Low	N/A
Heritage		Local residents, local Aboriginal residents and groups, individuals with other cultural or heritage links to the area	Unlikely			<ul style="list-style-type: none"> <li>Protection and management of nearby cultural sites identified in the Archaeological Assessment Report and Aboriginal Cultural Heritage Assessment</li> <li>Consultation with registered Aboriginal parties contacted as part of the assessment be continues throughout the life of the project</li> <li>Implementation of unexpected finds protocol</li> <li>Inclusion of measures taken in overall communication plan</li> </ul>

Impact theme	Impact detail	Stakeholders impacted	Likelihood	Consequence	Significance	Mitigation
Community	Health	Surrounding residents and businesses, workers	Unlikely	Moderate	Moderate	Ongoing management of potentially hazardous materials to eliminate risk of community exposure.
	Services and facilities	Surrounding residents	Unlikely	Minor	Low	Ongoing dialogue with service providers concerning any planned workforce changes
	Cohesion, capital and resilience	Wider community	Unlikely	Minor positive	Moderate positive	N/A
Economic	Livelihood	Wider community	Likely	Major positive	High positive	N/A
Personal and property rights	Opportunity cost	Wider community	Unlikely	Moderate positive	Moderate positive	N/A

## 8.2 Impacts on people

### 8.2.1 Amenity impacts

Amenity has a meaning of pleasantness, but also has a physical (or tangible) component. This includes the character and appearance of buildings, proximity to commercial or recreational facilities, quality of infrastructure and absence of noise, unsightliness or offensive odours. It also has a psychological or social component.

Amenity is what makes one location feel different from another, but it also contributes to a place's identity and can be what makes our physical surroundings worth caring about. Amenity can affect the ability of a resident, a visitor or the community to enjoy or undertake activities within the local area.

#### 8.2.1.1 Impacts during construction

The construction process has the potential to affect the amenity of sensitive receivers within the surrounding area. Sensitive receivers generally relate to residents but may also include child care centres, places of worship, community and recreational facilities or businesses (such as cafes and restaurants) that rely on the amenity of a locality to attract customers.

During construction, the following may affect local amenity:

- The removal of established vegetation
- The introduction of construction facilities to the environment
- Noise and dust arising from construction activities
- Unpleasant odours
- Increased traffic volumes and/or congestion.

Short term reduction in amenity may impact the existing residential properties within the immediate vicinity of the site, however due to the distance of nearby properties disruption is likely to be minimised. Construction impacts on local amenity are generally contained within close proximity to construction sites.

There are no dwellings or sensitive businesses located within 500 metres of the subject site, minimising any short term amenity impacts arising from proximity. However, additional traffic generated during construction could potentially impact on the amenity of surrounding transport networks, if not properly managed.

A range of mechanisms can be applied to minimise any potential construction impacts on amenity. Such mechanisms are typically required as a condition of development consent and are employed by most building contractors and implemented through a Construction Management Plan. Such plans tend to focus on issues such as demolition and construction staging, noise, air and water quality, construction traffic management, pedestrian safety and site management. They include simple but effective measures such as screening, noise mitigation at source and varying work hours.

With appropriate management of potential disruption arising from construction in place, it is considered that the impacts would be "minor" and "unlikely" to affect those nearby, presenting "low" social risk, with mitigation according to the social risk matrix (Section 2.3.3).

#### 8.2.1.2 Visual

While the subject site is positioned in a location that is distant from surrounding residents, the proposed operation of the facility at all hours presents a possibility of visual disruption from light pollution. These concerns were also raised in the community engagement outcomes report.

It is recommended that the proposal consider producing light spill plan demonstrating where lighting will be used during evening operations.

In light of the above, the proposed development is deemed to have a “rare” likelihood of impact and “minimal” consequences, producing a “low” significance of visual impacts.

### 8.2.1.3 Odour

The proposed development has the potential to negatively impact on the amenity of the surrounding area through the production of dust and particulate air pollution, as well as unpleasant odours. An air quality assessment report has been prepared for this proposal by Airlabs Environmental. The report identified potential sources of dust and air contamination associated with the operation of the proposed development, which include:

- Emissions from the kiln exhaust stack
- Fugitive dust emissions from operational activities

With respect to potential odour emissions, the air quality impact assessment stated that no significant odour generating sources were identified.

The report found that the incremental impacts (i.e. contribution from the proposed facility only) are not expected to have an adverse impact on the overall air quality levels in the surrounding region and that cumulative impacts (concentrations considering the proposed development in concert with adjacent existing industrial uses) were predicted to be within required criteria if a proposed suite of air quality improvement measures were implemented. It concluded that the findings from the dispersion modelling applied to the assessment showed low-level impacts from the proposed Bowral Bricks facility.

The proposed air quality improvement measures include:

- Adopting best practice measures to minimise HF emissions from the kiln
- Commissioning of a new kiln which will relatively improve fuel consumption and emissions profile
- Maintaining a design stack height of 35m, which will aid pollutant dispersion
- Use of raw material stockpile and crusher enclosures and providing sealed haulage surfaces.

In addition, community consultation indicated that there was some concern at the potential for dust and odours to impact on the surrounds. In addressing these concerns, it is noted that:

- Raw materials will only be transported from the neighbouring quarry to the brickworks and not on local roads (once new quarry is operational)
- All raw materials handling and brickmaking is undertaken indoors
- Covers will be placed on raw materials while they are being transported (as recommended in the air quality report)
- Access road will be sealed prior to the commencement of truck movements (as recommended in the air quality report).

With the implementation of the recommendations in air quality assessment, the proposed development presents an “unlikely” likelihood and the consequence is considered “minimal”. The overall significance of social risks arising from odour impacts to be considered to be “low”.

#### 8.2.1.4 Acoustic

Exposure to environmental noise can affect the sleep of residents and day to day living. Noise impacts may also affect the way people use space, their ability to communicate and the way individuals undertake daily activities. This includes heightened annoyance, stress and sleep disturbance.

An acoustic assessment was undertaken by Benbow Environmental for the proposed development. It noted that the principal noise sources associated with the site include noise from plant equipment, external mobile vehicles, truck movements associated with material delivery and loading and the external crushing operations. The report modelled potential acoustic impacts arising during construction and operation, both on site and off site (e.g. vehicle movements). The report recommended a range of measures to mitigate impacts arising from the operation of the proposed development:

- Prohibition of extended periods of on-site revving/idling
  - Minimisation of the use of truck exhaust brakes on site
  - Enforcement of low on-site speed limits
  - Signs to encourage quiet operations during the night period
  - On-site mobile equipment to be maintained in accordance with a preventative maintenance program to ensure optimum performance and early detection of wearing or noisy components
- Replacement of beeping reversing alarms on all vehicles which are regularly used on site (the forklift and front end loader) with reversing lights or a white noise reversing alarm (squawker).

The report notes that the proposal meets noise level requirements and that the above noise mitigation measures are recommended in order to proactively further reduce noise levels at surrounding receivers.

The report concluded that no additional mitigation measures are required for noise impacts arising from construction or operational road movements if they are carried out as described in the proposal.

With the proposed additional mitigation measures, the proposed development presents an “unlikely” likelihood and the consequence is considered “minor”. The overall social risk significance arising from acoustic impacts is considered to be “low”.

### 8.2.2 Access

#### 8.2.2.1 Road networks

A Traffic Impact Assessment has been prepared by Ason Group to the proposed development. The report details modelling undertaken to assess the impact of the proposal on the performance of the road network in the proximity of the subject site and, where required, identify necessary upgrades to mitigate any adverse impacts.

The report concluded:

- The proposal would generate operational demand requiring 36 staff parking spaces. A total of 59 spaces are to be provided, accommodating staff and visitors, if necessary
- The proposal is predicted to generate a total of 26 vehicle movements per peak hour (14 heavy vehicles and 12 light vehicles), based on a first principles assessment of operational requirements of the brickmaking factory

- Under a cumulative assessment of the approved quarry, the proposed masonry plant and the proposed brickmaking factory, there would a total future total traffic generation of 68 vehicles (22 light vehicles and 46 heavy vehicles) during peak hours
- Traffic generated by the proposal, the proposed masonry plant and approved quarry can be accommodated by the existing road network without any adverse impacts to the external road network.

The report recommends upgrades to the intersections of Berrima Road/Taylor Avenue and the heavy vehicle access to the recommended rural intersection treatments as specified in the Austroads guide. This would allow B-Doubles to travel between the site and the Taylor Avenue.

It should also be noted that the location of the proposed brickmaking facility at New Berrima, sharing the same proposed access road, is significantly closer to the new quarry from which the raw materials will be drawn in future. As such, the proposed development would produce significantly less vehicle movements across the wider area (particularly in populated centres) transporting raw materials than if the existing brickmaking plant were retained with the new quarry, particularly in the more urbanised areas in Bowral where the existing plant is located.

With consideration of these points and the implementation of recommendations contained within the report, the likelihood of impacts to transport access is considered “unlikely” and the consequence is considered “minor”. The overall significance of social risks to transport access are considered to be “low”.

### **8.2.3 Built environment**

#### **8.2.3.1 Public domain**

The audit of existing social infrastructure revealed the proximity of the New Berrima Sports Ground to the subject site. Owing to the proximity of the subject site, the proposal has the potential to impact on the amenity of this public space during construction and operation. It should be noted that the sports ground lies closer to the existing Boral Cement Works, which would potentially decrease the existing level of amenity. Analysis undertaken as part of the acoustics report by Benbow Environmental indicated that impacts to the surrounding properties, including the sports ground was within guidelines.

Any further impacts to public domain would be confined to roadways and the amenity of the domain immediately surrounding them (e.g. footpaths). These impacts would most likely arise during construction, which is considered in Section 8.2.1.1.

Considering the usage in the surrounding area (predominantly agricultural and industrial), the operation of the proposed development is unlikely to impact on the amenity of the surrounding public domain.

The traffic management and acoustic reports cited above indicate that any amenity impacts are likely to be minimal. As such, the impact on the public domain is assessed as being “minor” with an “rare” likelihood and is deemed to present “low” social risk.

### **8.2.4 Heritage**

Under the SEARs, the proponent was required to commission an assessment of Aboriginal and non-Aboriginal heritage items and values of the site and surrounding area in accordance with the relevant Office of Environment and Heritage guidelines.

The heritage report prepared by Biosis found that there are no known heritage items or artefacts on site and recommended the implementation of an unexpected finds procedure should any items not previously identified be found over the course of ground disturbance.

An Aboriginal Cultural Heritage Assessment has been prepared by Biosis, which included a consultation process with Aboriginal groups in determining the significance of Aboriginal object(s) and/or places in the vicinity of the study area. The report concluded that while there were no items or places of significance within the proposed development area, there is evidence of archaeological deposits (**grinding grooves and subsurface artefact scatter**) along Stony Creek adjacent to the site. The assessment recommended that

- The grinding grooves and subsurface artefact scatter be protected with a buffer and fencing
- Consultation with registered Aboriginal parties contacted as part of the assessment be continues throughout the life of the project
- The Cultural Heritage Management Plan be updated to consider the include the Site 2 study area (the subject site), in consultation with the registered Aboriginal parties and **NSW Environment, Energy and Science Group** to facilitate management and mitigation strategies for sites identified in the assessment that fall within the study area boundary.

The following recommendations arising from the Community Engagement Report relate to the management of heritage in the context of the proposed development:

- Reiterate Aboriginal heritage unexpected finds protocol
- Reiterate actions being implemented to avoid/preserve Aboriginal heritage items.

The two above recommendations relate to effectively communicating the proposal and any impacts it may have. Noting there were several other recommendations centred on clear communication throughout development, it is recommended that both points be implemented as part of the broader communications and community engagement strategy for the proposed development.

## **8.3 Community**

### **8.3.1 Health**

The potential for increased risk to health has been considered including risk arising from disposal of waste, increased traffic emissions and dust during construction. A waste reduction plan has been prepared by LG Consult for waste generated during construction and waste generated during operation. In both cases these plan cover waste reduction measures, reuse options and recommendations for storage locations.

Most essential to health are recommendations around the management of potentially hazardous waste, including any human refuse and chemicals. It is recommended that the proposed development implement these measures to ensure all waste is managed safely.

Riskon Engineering has been commissioned to assess the applicability of the requirements of State Environmental Planning Policy 33 – Hazardous and Offensive Developments (SEPP 33), requiring a review of any dangerous goods (as defined under SEPP 33) to be stored on site and quantities thereof. The report identified that amounts of aerosols, flammable liquids, flammable solids, oxidising agents and corrosive substances to be stored onsite do not exceed the minimums specified in the SEPP, therefore not requiring a Preliminary Hazard Analysis under the SEPP.

Traffic movements could potentially generate additional emissions, possibly impacting on the health of surrounding communities. While, the traffic impact assessment prepared by Ason Group has identified that the road network can sustain the additional movements, care should be taken to ensure that heavy vehicle movements are contained to between 5am and 5pm.

There were no risks identified in the air quality impact assessment.

Overall, the potential health impacts to arise from the proposed development are considered to present an “unlikely” risk to the community of “moderate” level of consequence. Overall, the proposal presents a “moderate” social risk to the health and wellbeing of the wider community. This risk can be effectively mitigated by ongoing monitoring and management of potentially hazardous materials and emissions.

### **8.3.2 Services and facilities**

The proposed development will see both residents and workers accessing additional services and facilities as part of the operation of the proposed development. As identified in the Social Infrastructure Audit in Section 6.0, New Berrima and Berrima are the nearest population centres, with Berrima containing most services, including child care, as well as primary and educational facilities.

The proposal seeks to move existing employees to the proposed site with a potential modest increase in employment numbers. The existing social infrastructure in the surrounds has capacity to accommodate short term needs. However, a dialogue with local service providers should be maintained and any planned changes to workforce size communicated well in advance.

On this basis, the proposed development is considered to have an “unlikely” and “minor” level of impact. On the social risk matrix, the proposed development presents a “low” risk in terms of social infrastructure.

### **8.3.3 Cohesion, capital and resilience**

Community cohesion refers to the connections and relationships between individuals and their neighbourhoods. A socially cohesive society is one which works towards the wellbeing of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust and offers its members the opportunity of upward mobility.

In creating additional employment opportunities, the proposed development will positively impact on cohesion by adding to opportunities for meaningful engagement in the workforce. Increased employment will encourage employees to interact with other members of the community and participate in community events. Increased incomes for employees could facilitate increased involvement in entertainment, leisure, sport and active recreation, contributing to more balanced lifestyles and community wellbeing. The proposed development also creates more opportunities for residents in the area to work closer to home, thereby adding to time that they can spend in their families and communities.

The existing Bowral Brickworks has existed since 1920s and is has a strong association with the town and wider region, having pioneered a number of innovative manufacturing techniques and designs. As such, the continued viability of the facility is of importance to community identity. The historic association of the community with the brickworks could further enhance the benefits of the new brickworks by emphasising the continuity of the two sites through initiatives that display and celebrate the historic nature of the brickworks (e.g. through the display of historic artifacts or photographs at the new site).

Overall, the proposed development is considered to be of low negative social risk, while likely to produce substantial benefits.

## **8.4 Economic**

The proposal would affect the local and regional economy both during construction and operation.

#### **8.4.1 Livelihood**

Livelihood is defined as a person's ability to make a living. In the context of the proposed development it is useful to consider these impacts as generated during the construction phase and then during operation.

An economic impact assessment prepared by Macroplan estimates that the proposed development will generate 60 to 65 full-time equivalent jobs per annum directly in the construction industry and a further 95 to 100 full-time equivalent jobs per annum indirectly. These additional jobs could reduce overall unemployment in the wider area, positively affecting the number of people on social security and improving social mobility for community members who may be struggling to find work. Higher employment rates would positively impact on social cohesion and community participation, which would have positive flow on effects, particularly on mental health outcomes within the wider community.

The construction industry is a significant component of the economy, accounting for 6.7 per cent of Gross Domestic Product (GDP) and employing almost one million workers across Australia. The industry has strong linkages with other sectors, so its impact on the economy goes further than the direct contribution of construction. As shown in Section 5.7, 10.7 per cent of individuals working within Moss Vale-Berrima SA2 are employed in the construction industry, compared with 6.8 per cent across the wider LGA.

The new brickmaking plant will include a modest increase in direct employment (workers employed by the plant) over the existing plant in Bowral (40 FTE jobs versus 35 at the existing plant). The Macroplan report has found that this will generate 38 indirect and induced jobs around the factory (services and the like), representing an increase of approximately 19 per cent on the level generated by the current facility.

Further positive economic impacts will arise during operation from additional use of local businesses both as suppliers and by workers on site. This will flow on to other local businesses, not only directly benefitting the livelihood of those businesses, but also contributing to the wider community, benefitting wider community resilience and cohesion. This additional local activity will also elevate the economic status of New Berrima in the region and state, increasing its importance as a destination for itinerant workers (e.g. contractors and consultants), which will be of benefit to local accommodation providers.

The proposed development stands to make a positive contribution to the livelihood of residents across the wider region, creating new employment opportunities during the construction period closer to residents' homes. As such likelihood is rated as "likely" and the consequence is rated as major positive, producing a significance of "high positive"

#### **8.4.2 Opportunity cost**

Opportunity cost is defined as the real marginal cost of a resource or action, or the value forgone by using the resource or by acting in one way rather than another. If the present situation were retained, the existing brickmaking plant at Bowral would continue operation. The Economic Impact Assessment prepared by Macroplan notes the extremely limited options for any expansion of the existing plant given Bowral's increasingly urbanised nature, meaning that the additional employment would be foregone under this scenario. The proximity of the proposal to the new brick quarry presents an opportunity for additional efficiencies in transporting materials.

The additional direct and indirect cost foregone in construction employment by not proceeding with the proposal is also significant.

From this evaluation of alternatives, the risks associated with opportunity cost of the proposed development are consequently assessed as presenting an "unlikely" and "moderate positive" consequence in the event the proposal proceeds and therefore a "moderate positive" significance impact. However, not acting, thereby

forgoing the potential employment and economic benefits arising from the proposed development, would present a high risk of opportunity cost.

# MITIGATION MEASURES

## 9.0 MITIGATION MEASURES

The following list summarises the mitigation measures suggested as a result of the social impact assessment detailed throughout this report.

- The preparation and implementation of a construction management plan
- Continuing engagement with the surrounding communities on aspects of operations affecting residents (particularly in relation to amenity and disruption arising from truck movements and after hours operations). Particularly critical to this is effective communication of action taken in response to community concerns
- Maintain a dialogue with local school and child care service providers to communicate any planned workforce changes in advance
- Implementation of mitigation measures specified in other technical reports, particularly the Air Quality Assessment, Acoustic Assessment, Aboriginal Cultural Heritage Assessment and Archaeological Report.

# CONCLUSION

## 10.0 CONCLUSION

This report has assessed the potential positive and negative social impacts arising from a proposed new brickmaking plant in New Berrima.

The proposal seeks to relocate an existing plant in Bowral to a nearby location between the towns of Berrima and Moss Vale. While the proposal carries some risks associated with impacts to local amenity through the introduction of additional industrial activity and 24-hour operations, this report has concluded that these risks can be effectively managed through proper planning and continuing engagement with surrounding community members, groups and businesses. In this way, the proposal can deliver the benefits of the continued operation of brickmaking in the area, as well as the economic benefits through expanded operations afforded by the proposal.

Overall, the negative impacts of the proposed development can be successfully managed with the implementation of the above mitigation measures. As such, it is anticipated that overall, the proposed development presents a low social risk, accompanied by significant economic benefits arising from additional employment (direct and indirect) during construction and subsequent operation.

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## **SYDNEY**

Level 3, 234 George Street  
Sydney NSW 2000  
GPO Box 2748 Sydney NSW 2001  
t: +61 2 9252 8777  
f: +61 2 9252 6077  
e: [sydney@hillpda.com](mailto:sydney@hillpda.com)

## **MELBOURNE**

Suite 114, 838 Collins Street  
Docklands VIC 3008  
t: +61 3 9629 1842  
f: +61 3 9629 6315  
e: [melbourne@hillpda.com](mailto:melbourne@hillpda.com)

**WWW.HILLPDA.COM**