



# CREDWELL

**Project** 806-812 Windsor Rd, Rouse Hill,  
NSW, 2155

**Report** ESD Report

**Reference** 220129E-ESD\_SSDA

**Date** 31<sup>st</sup> October 2025

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## 1 Executive Summary

### 1.1 Introduction

This Ecologically Sustainable Development (ESD) report has been prepared by Credwell Consulting to accompany a detailed State Significant Development Application (SSDA) for a residential development at 806-812 Windsor Rd, Rouse Hill, NSW, 2155.

The site comprises 7 residential buildings with a total of 700 units and 3 levels of basement car parking. The legal description of the site is outlined in the table below.

Property Address	Title Description
<b>806-812 Windsor Rd, Rouse Hill, NSW, 2155</b>	<ul style="list-style-type: none"> <li>▪ Lot 5 DP 1358833</li> <li>▪ Lot 5 DP1033570</li> </ul>
<b>Project Site Area</b>	22373.5 m <sup>2</sup>

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project SSD-82943710.

This report concludes that the proposed development is suitable and warrants approval subject to the implementation of the following mitigation measures to reduce greenhouse gas emissions, enhance energy and water efficiency, promote responsible material sourcing, and lessen the impact on the natural environment:

#### 1. Energy Efficiency:

- Energy-efficient sanitary appliances.
- Efficient appliance, hot water systems, service and lighting.
- Enhancing insulation and optimising heating and cooling systems.

#### 2. Water Conservation and Stormwater Management:

- 2.4kL rainwater tank for reuse, with water-efficient showerheads, taps, and toilets.
- The design reduces downstream flooding and pollutant runoff, helping to minimise cumulative impacts on the Rouse Hill catchment.
- Incorporating green spaces and water-saving features, while ensuring accessibility and community integration.
- Construction-phase erosion and sediment controls, wash-down areas, and buffer zones minimise runoff and protect drainage lines.
- MUSIC modelling indicating up to 92%–100% reductions in stormwater pollutants.

#### 3. Waste Management:

- Reuse and recycling of materials.
- Waste separation in designated areas with bins for proper waste management, to be designed and approved by a waste specialist or contractor.

#### 4. Sustainable Materials

- Selecting materials made from reused or recycled content.
- Exploring the use of sustainable materials and finishes with low embodied emissions, such as responsibly sourced steel, timber, and concrete with sustainability certifications, Environmental Product Declarations and locally sourced options.
- Exploring the use of paints, adhesives, sealants, and carpets with low levels of Total Volatile Organic Compounds (TVOC).
- Exploring the use of engineered wood products have low levels of Total Volatile Organic Compounds (TVOC).

#### 5. Passive Design

- High insulation in walls, exposed ceilings, suspended floors, and energy-efficient double-glazed windows.
- Awning windows to promote natural ventilation.
- Proper sealing of doors, windows, and other openings to prevent drafts and air leaks.
- Open layout design for the kitchen, living, and dining areas to enhance natural light and connectivity.

#### 6. Climate Adaptation:

- Opportunity to assess and mitigate climate-related risks by implementing a pre-screening checklist.

#### 7. Green Spaces and Biodiversity:

- Minimum 4,502m<sup>2</sup> of deep soil areas for extensive landscaping.
- Implementing WSUD principles in landscaping design to support local biodiversity.

#### 8. Sustainable Transport:

- Encouragement of alternative transportation methods, such as walking, cycling, public transit, and carpooling.
- Provision of 234 bicycle parking spaces for residents.

#### 9. Environmental Compliance:

- Development of a site-specific Environmental Management Plan covering the scope of construction activities through to completion.

## 1.2 Background

The application seeks consent for the demolition of existing on the site and development of 700 residential apartments and basement parking. Specifically, the SSDA seeks development consent for:

- Demolition of existing buildings, structures and trees.
- Construction of a residential flat building up to 7-8 storeys in height (15.6m including 12m + 30% bonus) to provide 700 apartments including, residential amenities and services.
- Total proposed number of carparking spaces = 870 spaces (730 residential including 72 accessible; 140 visitor (including 4 accessible)).
- Provision of 246 car parking spaces at basement level and bicycle parking for Block A and B, comprising:
  - B1 – 30 residential (incl. 1 accessible) + 14 visitor (incl. 1 accessible) + 85 bicycle parking spaces and 40 storages
  - B2 – 103 residential (incl. 16 accessible) + 24 visitor (incl. 1 accessible / car wash bay) and 154 storages
  - B3 – 75 residential (incl. 3 accessible) and 88 storages
- Provision of 216 car parking spaces at basement level and bicycle parking for Block C, comprising:
  - B1 – 107 residential (incl. 23 accessible) + 64 visitor (incl. 2 accessible) + 105 bicycle parking & 1 carwash bay
  - B2 – 207 residential (incl. 9 accessible) + 192 storages
- Provision of hard and soft landscaping.
- Associated works for the provision of infrastructure and servicing.

## 1.3 Detailed Description

- Construction of 700 residential apartments in buildings up to 7-8 stories in height.
- Provision of 68,906m<sup>2</sup> GFA.
- Provision of 1.92:1 FSR.
- Provision of:
  - 52 no. (7.4%) 1-bedroom apartments
  - 492 no. (70.3%) 2-bedroom apartments
  - 140 no (20%) 3-bedroom apartments
  - 16 no. (2.3%) 4-bedroom apartments
- Provision of 2 basement car parking spaces and bicycle parking for Block C.
- Provision of 2.5 basement floor levels for car parking spaces and bicycle parking for each Block A and B.
- Provision of 48.5% (10,848 m<sup>2</sup>) Landscape area.
- Provision of 36% (8,101 m<sup>2</sup>) Communal open space.
- Provision of 20% (4,502 m<sup>2</sup>) Deep soil.
- Provision of 65% (454 out of 700 apartments) Natural Ventilation.
- Retention of new street trees and provision of landscape planting.
- Provision of central courtyard.

#### 1.4 The Site

The site is located at 806-812 Windsor Rd, Rouse Hill within The Hills Shire Council Local Government Area. The site has a site area of 22373.5 m<sup>2</sup> and is legally described as:

- Lot 5, DP 1358833
- Lot 5 DP1033570

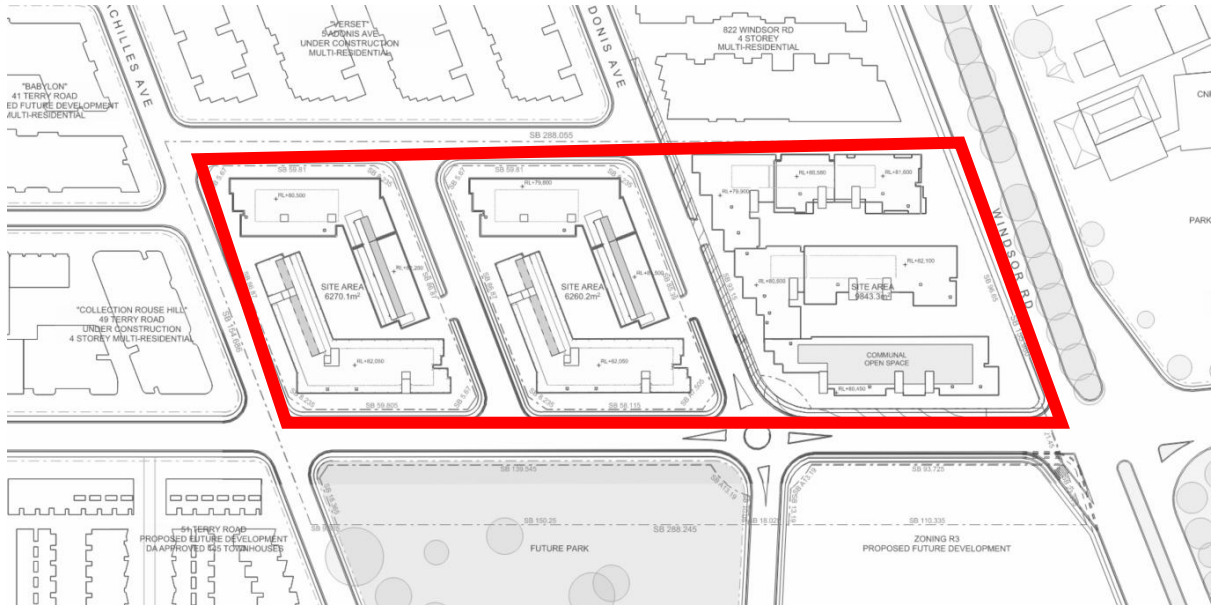
The urban context surrounding the site is characterised by predominantly medium-density residential and mixed-use development. The surrounding locality is described as:

- To the north of the site are existing multi-residential development projects fronting Terry Road, called "Verset".
- To the east of the site are existing commercial buildings fronting Commercial Road and Windsor Road, including retail and service premises.
- To the south of the site is proposed future parkland zoned providing a green interface and community open space and a proposed future residential development on the South of Block C.
- To the west of the site are existing and approved multi-residential developments along Terry Road, including Collection Rouse Hill and Babylon, as well as other planned townhouse developments.

The site benefits from being located within walking distance of Rouse Hill Metro Station and Rouse Hill Town Centre, providing direct public transport connections via the Sydney Metro North West Line to Epping, Macquarie Park, Chatswood and the Sydney CBD, as well as local bus services along Windsor Road and Commercial Road.

The existing development consists of several detached houses and small structures across the three sites. All existing buildings and landscaping are proposed to be removed as shown in the Demolition Plan (HDA 006).

Figure 1 Site Aerial



Source: Site Plan, Fuse Architects

Figure 2 Local Context



Source: Blacktown Maps Online

### 1.5 Scope of ESD Statement

Credwell has been engaged to assess the proposed ESD initiatives at 806-812 Windsor Rd, Rouse Hill and their relevance to both the current sustainability landscape and future developments.

This will involve reviewing the planned operations and providing recommendations.

The Planning Secretary's Environmental Assessment Requirements (SEARs) applicable to this development is outlined below:

Item	SEARs Description	Report Section
<b>15. Ecologically Sustainable Development (ESD)</b>	Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.	Section 2.1
	Where relevant, provide an assessment of the development against the standards for non-residential development set out in Chapter 3 of State Environmental Planning Policy (Sustainable Buildings) 2022.	Section 2.4 (Compliance with SEPP 2022 is necessary for affordable housing projects).

Additionally, compliance has also been demonstrated for relevant legislation and policies:

Item	ESD Description	Report Section
<b>Other Legislation and Policy</b>	Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.	Section 2.2 LEP Section 2.3 DCP Section 2.4 SEPP
	Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.	Section 2.5

The proposed development is subject to the Blacktown Local Environmental Plan (LEP) 2015, with the criteria outlined in the table below.

Aims of Plan	
<b>aa.</b>	To protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,
<b>a.</b>	Not applicable.
<b>b.</b>	To ensure that appropriate housing opportunities are provided for all current and future residents through diversity of housing choice,
<b>c.</b>	To provide land for community facilities, public purposes and recreational pursuits,
<b>d.</b>	Not applicable.
<b>e.</b>	Not applicable.
<b>f.</b>	Not applicable.
<b>g.</b>	Not applicable.
<b>h.</b>	To conserve, restore and enhance biological diversity and ecosystem health, particularly threatened species, populations and communities.

The proposed development is subject to the Blacktown Development Control Plan (DCP) 2015, with the criteria outlined in the table below.

<b>General Objectives</b>	
<b>a</b>	Not applicable.
<b>b</b>	Not applicable.
<b>c</b>	Promote development that is consistent with Council's vision of creating a living environment
<b>d</b>	Protect and enhance the natural and built environment, and ensure that satisfactory measures are incorporated to ameliorate any impacts arising from development
<b>e</b>	Encourage high quality development that contributes to the existing or desired future character of the area, with particular emphasis on the integration of buildings with a landscaped setting
<b>f</b>	Protect and enhance the public domain
<b>g</b>	Encourage a high standard of aesthetically pleasing and functional development that sympathetically relates to adjoining and nearby developments
<b>h</b>	Provide safe and high quality environments, that also promote the health and wellbeing of residents, workers and visitors of the Blacktown Local Government Area.
<b>i</b>	Ensure that development incorporates the principles of Ecologically Sustainable Development (ESD)

The State Environmental Planning Policy (Sustainable Buildings) 2022 is also applicable to the proposed development.

<b>Aims of Policy</b>	
<b>a</b>	To encourage the design and delivery of sustainable buildings.
<b>b</b>	To ensure consistent assessment of the sustainability of buildings.
<b>c</b>	To record accurate data about the sustainability of buildings, to enable improvements to be monitored.
<b>d</b>	To monitor the embodied emissions of materials used in construction of buildings.
<b>e</b>	To minimise the consumption of energy.
<b>f</b>	To reduce greenhouse gas emissions.
<b>g</b>	To minimise the consumption of mains-supplied potable water.
<b>h</b>	To ensure good thermal performance of buildings.

## 2 Compliance with relevant Legislation and Policy

Sustainable buildings and districts encompass various categories that combine the design and operation of a development into a cohesive strategy, addressing environmental, social, and economic goals. The ESD initiatives outlined in this statement are in accordance with applicable legislation and policies.

The Environmental Planning and Assessment Regulation 2021, Division 5, Environmental Impact Statements—the Act, ss 4.12(8), 5.7(1), and 5.16(2), Section 193 defines Ecologically Sustainable Development (ESD) as follows:

**a. Precautionary Principle:**

- 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:
  - careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
  - an assessment of the risk-weighted consequences of various options.

**b. Inter-generational equity:**

- The present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

**c. Conservation of biological diversity and ecological integrity:**

- Conservation of biological diversity and ecological integrity should be a fundamental consideration.

**d. Improved valuation, pricing and incentive mechanisms:**

Environmental factors should be included in the valuation of assets and services, such as:

- polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
- 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,
- 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 problem.

The principles of The Environmental Planning and Assessment Regulation 2021, Division 5, Environmental Impact Statements—the Act, ss 4.12(8), 5.7(1), and 5.16(2), Section 193 are outlined below along with the fulfilling mitigation measures within the scope of the project.

## 2.1 Section 193 of the EP&A Regulation

The following outlines each principle, along with the relevant mitigation measures and their alignment with specific reports.

Principles	Mitigation Measures	Document Reference
<p><b>a. Precautionary Principle</b></p>	<p>Temporary sediment basins, diversion channels, and silt fences are installed prior to construction to prevent runoff and sediment discharge from the site. Wash-down areas at Adonis Avenue ensure all truck tyres are cleaned before leaving the site, and grassed buffer zones protect existing drainage lines.</p> <p>MUSIC modelling shows approximate stormwater pollution targets of:</p> <ul style="list-style-type: none"> <li>• TSS reduction of 92%,</li> <li>• TP reduction of 70%;</li> <li>• TN reduction of 50%;</li> <li>• GP reduction of 100%</li> </ul> <p>The civil design identifies designated stockpile areas and settling ponds to manage construction materials and stormwater on-site. This supports efficient soil handling, minimises off-site disposal, and reduces waste generation in line with sustainable construction practices.</p> <p>Integrated WSUD features such as rain gardens, bio-swales and permeable paving manage stormwater close to source, reducing runoff and protecting downstream waterways. Terrace gardens with native vegetation also stabilise soil and mitigate erosion.</p> <p>Embeds Dharug cultural guidance early in design to protect Country, including pre-construction smoking ceremonies and cultural water management to prevent damage to local creeks.</p> <p>Implements waste-segregation measures and on-site storage controls to prevent pollution and illegal dumping during demolition and construction. All materials are managed in accordance with the NSW EPA Better Practice Guide and Council's waste guidelines.</p>	<p>Water Management/ Stormwater civil drawings</p> <p>Water Management/ Stormwater civil</p> <p>Landscape Conceptual Plans</p> <p>First Nations Co- Design Values Report (2025) (pp13)</p> <p>Waste Management Plan (2025)</p>

	<p>The acoustic design applies early risk prevention by modelling traffic noise from Windsor Road and setting glazing, wall, and roof performance standards to ensure internal noise levels comply with SEPP (Infrastructure) 2007 and AS/NZS 2107:2016.</p>	<p>Noise Impact Assessment (2022) (pp 6-9)</p>
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<p><b>b. Inter-generational equity</b></p>	<p>The landscape provides long-term social and environmental benefits through accessible open spaces, shade trees, and communal areas such as “Forest Pathways” and “Gathering Circles”. These create enduring green spaces that enhance wellbeing for future residents.</p> <p>The engagement program ensures that planning decisions reflect the needs and values of both current and future residents. Early consultation, surveys, and community pop-ups allow diverse voices to influence design outcomes that create inclusive, safe, and connected neighbourhoods.</p> <p>Walk on Country sessions with Dharug Elders shaped the inclusion of gathering areas, edible terrace gardens, and art reflecting the Dharug Six Seasons, ensuring the site educates and benefits future generations.</p> <p>Promotes long-term environmental stewardship through efficient waste-handling infrastructure that enables ongoing recycling and FOGO collection for residents.</p> <p>The design provides equitable access for residents and visitors of all ages and abilities through compliant accessible pathways, ramps, lifts, adaptable dwellings and parking spaces. Over 10 % of units are adaptable and 20 % meet Livable Housing Design Guidelines Silver Level, ensuring the development remains functional and inclusive over its lifespan.</p>	<p>Landscape Conceptual Plans</p> <p>Community Engagement Report (pp2-6)</p> <p>First Nations Co-Design Values Report (2025) (pp22,28)</p> <p>Waste Management Plan (2025)</p> <p>Access Report (2025) (pp2)</p>
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<p><b>c. Conservation of biological diversity and ecological integrity</b></p>	<p>The landscape design uses mostly native, low-water plants that support local wildlife and help the site blend with its natural surroundings. The “Creek Garden” and “Forest Garden” areas connect greenery across the site to create a continuous natural environment.</p> <p>Integration of native, drought-tolerant species, bush-tucker gardens, and reuse of felled trees keeps Country on-site and supports local biodiversity.</p> <p>Reduces landfill reliance by maximising reuse and recycling of construction materials such as concrete, timber and metals, helping conserve natural resources.</p>	<p>Landscape Conceptual Plans</p> <p>First Nations Co-Design Values Report (2025) (pp23-25)</p> <p>Waste Management Plan (2025)</p>
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<p><b>d. Improved valuation, pricing and incentive mechanisms</b></p>	<p>Low-water, low-maintenance landscape solutions and passive irrigation through WSUD elements minimise long-term operating costs while supporting sustainable resource use.</p> <p>Cultural co-design enhances social and environmental value through locally sourced materials, cultural landscaping, and art that strengthens community identity, stewardship &amp; local economy.</p> <p>Incorporates life-cycle waste management by engaging licensed recyclers, applying separation at source, and maintaining on-site logbooks to ensure traceable resource recovery and cost efficiency.</p> <p>Investment in universal design increases long-term social and economic value by reducing future retrofit costs and enabling residents to age in place, supporting sustainable housing outcomes.</p> <p>Promotes efficient excavation and reuse of suitable fill materials, reducing waste transport, fuel use, and construction costs.</p>	<p>Landscape Conceptual Plans</p> <p>First Nations Co-Design Values Report (2025) (p8)</p> <p>Waste Management Plan (2025) (p16)</p> <p>Access Report (2025)</p> <p>Preliminary Geotechnical Assessment (2022)</p>
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## 2.2 Blacktown Local Environmental Plan (LEP) 2015

The following table illustrates how each initiative can be achieved through the implementation of mitigation measures. The findings and recommendations from the relevant consultant reports have been incorporated into this assessment.

LEP initiatives	Mitigation Measures
aa. Not applicable	
a. Not applicable	
b. To ensure that appropriate housing opportunities are provided for all current and future residents through diversity of housing choice,	<p>The proposal provides a range of dwelling types and sizes, supporting housing diversity and affordability within the development. A nominated proportion of affordable housing will be incorporated to broaden access for a range of household types, age groups, and income levels.</p> <p>The Architectural Design Report demonstrates how the proposed unit mix, apartment layouts and communal areas accommodate varying household needs while achieving good levels of amenity.</p> <p>The Acoustic Report ensures internal acoustic amenity across all apartment types, enhancing liveability and long-term housing quality.</p> <p>The Waste Management Plan ensures high standards of visual and functional amenity through integrated waste storage rooms, bulky-waste areas, and collection points designed to operate discreetly within basement levels, maintaining an uncluttered streetscape and supporting sustainable long-term operations.</p>
c. To provide land for community facilities, public purposes and recreational pursuits,	<p>Walk on Country and Design Input sessions held with Dharug Elders informed site layout and communal design to promote “multi-generational community creation” and “caring for family as caring for Country.” These outcomes strengthen the sense of belonging and inclusion for current and future residents.</p> <p>The design reinforces inclusivity through cultural and spatial design strategies that embed Connection to Country principles including inter-generational gathering spaces, rooftop gardens for shared food growing, and landscape themes that reflect Dharug seasonal knowledge.</p>
d. Not applicable	
e. Not applicable	
f. Not applicable	
g. Not applicable	
h. Not applicable	

### 2.3 Blacktown Development Control Plan (DCP) 2015

The following table illustrates how each initiative can be achieved through the implementation of mitigation measures. The findings and recommendations from the relevant consultant reports have been incorporated into this assessment.

DCP initiatives	Mitigation Measures
a. Not applicable	
b. Not applicable	<p>Exploring the use of sustainable materials and finishes with low embodied emissions, responsibly sourced materials such as steel, timber and concrete with approved sustainability certifications.</p> <p>Integration of renewable energy sources such as solar panels with potential battery storage systems. The minimum capacity will be as specified in the BASIX report.</p> <p>Incorporating green spaces and water saving features, while ensuring accessibility and community integration.</p>
c. Promote development that is consistent with Council's vision of creating a living environment	<p>The design achieves acoustic comfort through façade treatments, high-performance glazing, and roof insulation to mitigate external noise from Windsor Road, supporting healthy, comfortable, and resilient living conditions.</p> <p>Waste management plan demonstrates sustainable operational design through separated recycling, FOGO and general waste systems, screened waste storage rooms, and education signage, ensuring clean and efficient waste handling that enhances resident wellbeing and site amenity.</p> <p>The design ensures that the built form promotes inclusivity and equitable use through adaptable and livable housing design, accessible parking, and continuous circulation paths connecting residential entries, communal areas, and the public domain.</p>
d. Protect and enhance the natural and built environment, and ensure that satisfactory measures are incorporated to ameliorate any impacts arising from development	<p>the Waste Management Plan establishes a framework for sustainable construction and operation, targeting over 80 % waste diversion through onsite material segregation, recycling and reuse. The plan includes pollution prevention, sediment control, and safe waste handling procedures, ensuring no adverse impacts on surrounding land or waterways.</p> <p>The WSUD Strategy integrates bio-retention basins, gravel filters, and underground storage tanks to treat stormwater onsite before discharge. These features minimise downstream flooding, improve water quality, and enhance groundwater recharge, reducing cumulative impacts on the Rouse Hill catchment.</p>

<p>e. Encourage high quality development that contributes to the existing or desired future character of the area, with particular emphasis on the integration of buildings with a landscaped setting</p>	<p>The proposal contributes to a high-quality urban character by integrating built form with landscape and water-sensitive design elements that reinforce ecological and visual amenity across the site.</p> <p>The Landscape Concept and WSUD Strategy illustrate the incorporation of bio-swales, tree planting zones, and terrace planting to soften built edges and strengthen the relationship between buildings, streetscape, and open spaces. These areas promote biodiversity, provide shade, and visually connect the development to the surrounding residential context.</p>
<p>f. Protect and enhance the public domain</p>	<p>The Landscape and WSUD Plans integrate street tree planting, bio-swales, and verge landscaping that improve visual amenity while filtering stormwater before it reaches the local drainage network. These elements enhance the experience of the public realm and contribute to urban cooling and biodiversity.</p>
<p>g. Encourage a high standard of aesthetically pleasing and functional development that sympathetically relates to adjoining and nearby developments.</p>	<p>The Landscape design incorporate tree planting and terrace gardens that soften the building edges and enhance visual continuity. This approach integrates biodiversity, cultural interpretation and climate-responsive planting, providing habitat value while strengthening residents' sense of place and connection to Country.</p> <p>The Architectural Design show well-proportioned façades, varied materials and height transitions that complement the surrounding character.</p> <p>The design ensures acoustic treatments along Windsor Road maintain comfort and minimise external impacts.</p>
<p>h. Provide safe and high quality environments, that also promote the health and wellbeing of residents, workers and visitors of the Blacktown Local Government Area.</p>	<p>A comprehensive Waste Management Plan has been prepared to ensure that demolition and construction activities provide a clean, safe and high-quality environment for workers and surrounding residents. The plan outlines waste-sorting, storage and recycling practices that minimise airborne dust, odour, and contamination risks, thereby supporting the health and wellbeing of the community during the construction phase.</p>
<p>i. Ensure that development incorporates the principles of Ecologically Sustainable Development (ESD)</p>	<p>BASIX commitments ensure low-energy fixtures, efficient hot water systems, and high WELS-rated appliances.</p> <p>Bio-retention basins and permeable paving manage runoff and improve water quality.</p> <p>Orientation, shading and passive ventilation respond to the local Rouse Hill climate zone.</p>

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	<p>Landscaping uses native and drought-tolerant species, maintaining ecological links through “Creek,” “Forest,” and “Sky” garden corridors.</p> <p>The Waste Management Plan promotes recycling and reuse of materials during both construction and operation, reducing landfill and resource depletion.</p>
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## 2.4 The State Environmental Planning Policy (Sustainable Buildings) 2022

The following table outlines how each initiative can be accomplished using mitigation measures.

SEPP initiatives	Mitigation Measures
<p>a. To encourage the design and delivery of sustainable buildings.</p>	<p>The builder/ head contractor to develop a site-specific Environmental Management Plan that covers the scope of construction activities through to completion.</p> <p>The building shall provide bins for the separation of waste streams in designated waste storage areas. The design of these areas shall be approved by a waste specialist or contractor.</p> <p>As a future opportunity, the paints, adhesives, sealants, and carpets used internally should have low levels of Total Volatile Organic Compounds (TVOC).</p> <p>The development shall consider the inclusion of efficient appliances and hot water systems, as specified in the BASIX certificate.</p> <p>Any heating, ventilation, air conditioning, refrigeration systems, and cold/freezer rooms should exclude the use of refrigerants like chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs) with high ozone depletion potential.</p> <p>The development features a minimum 2.4kL rainwater tank for reuse, along with water-efficient showerheads, taps, and toilets as outlined in the BASIX certificate.</p> <p>Options will be explored to use materials with low embodied carbon emissions, including products made from recycled or reused content, sustainably sourced timber and steel, items with Environmental Product Declarations (EPDs), low-carbon concrete alternatives like fly ash or slag cement, and locally sourced materials to minimize transportation emissions.</p> <p>The development features a stormwater treatment system comprising a 2.4kL rainwater tank for reuse, WSUD elements such as bio-swales, rain garden, and permeable paving to manage stormwater runoff. These systems are designed to meet the pollutant reduction targets established by Blacktown Council.</p>
<p>b. To ensure consistent assessment of the sustainability of buildings.</p>	<p>As per the above.</p>
<p>c. To record accurate data about the sustainability of buildings, to enable improvements to be monitored.</p>	<p>Installing smart meters to track energy and water consumption in real-time.</p>

<p>d. To monitor the embodied emissions of materials used in construction of buildings.</p>	<p>Provision for options of low-embodied-carbon materials such as concrete with supplementary cementitious materials and locally sourced aggregates (Civil and Structural design).</p> <p>Encouragement of recycled content and durable finishes in architectural specifications to extend building lifespan.</p> <p>Waste Management Plan which promotes reuse of demolition and excavation materials to reduce lifecycle emissions.</p>
<p>e. To minimise the consumption of energy.</p>	<p>Using energy-efficient appliances and LED lighting as prescribed in the BASIX certificate.</p> <p>Enhancing insulation and optimise heating and cooling systems.</p> <p>An open layout design for the kitchen, living, and dining areas, combined with glazed balcony doors, creates a light-filled environment, enhancing natural light and connectivity.</p>
<p>f. To reduce greenhouse gas emissions.</p>	<p>Using energy-efficient appliances, services and lighting as prescribed in the BASIX certificate.</p> <p>The development encourages alternative modes of transportation, including walking, cycling, public transit, and carpooling, with 190 bicycle parking spaces for residents.</p> <p>Reuse and recycling of materials.</p> <p>Selecting materials made from reused or recycled content.</p>
<p>g. To minimise the consumption of mains-supplied potable water.</p>	<p>The development features a minimum 2.4kL rainwater tank for reuse, along with water-efficient showerheads, taps, and toilets as outlined in the BASIX certificate.</p> <p>The development incorporates WSUD design for the landscaping.</p>
<p>h. To ensure good thermal performance of buildings.</p>	<p>The design features high insulation in walls, exposed ceilings, and suspended floors, along with energy-efficient double-glazed windows, as outlined in the BASIX requirements.</p> <p>Awning windows are provided to promote natural ventilation.</p> <p>Ensuring proper sealing of doors, windows, and other openings to prevent drafts and air leaks.</p>

## 2.5 Minimising Emissions and Reducing Resource Consumption towards Net Zero

The primary goal of various environmental regulations and policies is to create a sustainable building designed to endure for years.

Key actions to minimise greenhouse gas emissions and support the Government's goal of net zero emissions by 2050 include:

- Potential transitioning to renewable energy and building electrification to reduce emissions across multiple sectors.
- Improving energy efficiency in buildings by upgrading insulation and glazing, utilising energy-efficient appliances, building services, efficient lighting and control systems.
- Promoting the future adoption of electric vehicles (EVs), facilitating EV charging stations and designing walkable paths and cyclist routes, and options for car sharing.
- Utilising materials with low embodied carbon emissions and focusing on reusing and recycling resources.

By implementing the strategies outlined in this report, it is possible to reduce emissions and build a more sustainable future.

## 3 Conclusion

This report outlines how the objectives specified in the SEARs 2025, Blacktown's Local Environmental Plan (LEP) and Development Control Plan (DCP), along with Section 193 of the Environmental Planning and Assessment (EP&A) Regulation and the State Environmental Planning Policy (SEPP), are addressed in relation to the proposed development at 802-812 Windsor Rd, Rouse Hill. The report provides a comprehensive analysis of how the development complies with the relevant planning and regulatory requirements, ensuring alignment with the goals and guidelines set by these frameworks.

Sections of the SEARs, LEP, DCP, EP&A Regulation, or SEPP that are not applicable to this type of development are not covered in this report.