

Sustainability and Resilience Strategy 2024-2028



Acknowledgement of Country

Aboriginal people have had a continuous connection with the Country encompassed by the Western Parkland City from time immemorial. They have cared for Country and lived in deep alignment with this important landscape, sharing and practising culture while using it as a space for movement and trade.

We acknowledge that four groups have primary custodial care obligations for the area: Dharug/Darug, Dharawal/Tharawal, Gundungurra/Gundungara and Darkinjung. We also acknowledge others who have passed through this Country for trade and care purposes: Coastal Sydney people, Wiradjuri and Yuin.

The Bradfield Development Authority wishes to acknowledge Aboriginal people as the traditional custodians of this land. Through thoughtful and collaborative planning, we seek to demonstrate our ongoing commitment to creating places in which Aboriginal people are supported socially, culturally, and economically.

Acknowledgment of Community and Culture

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. Diverse, strong, and connected Aboriginal communities have established their families in this area over generations, even if their connection to Country exists elsewhere.

We acknowledge the six Local Aboriginal Land Councils whose boundaries cover parts of the Parkland City, the Gandangara, Deerubbin, Tharawal, Metropolitan, Pejar, and Wanaruah and that they have responsibilities to communities within this area and some have landholdings as well.

Ensuring that Aboriginal communities, their culture, and obligations for Country are considered and promoted will be vital for the future of the Western Parkland City.

A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.



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Introduction

Welcome to the Bradfield Development Authority's (BDA) first Sustainability and Resilience Strategy (2024-2028).

The BDA is building a stronger future for Western Sydney by delivering Australia's newest city - Bradfield City Centre - and attracting investment to the region.

We are committed to embedding sustainability and resilience across our corporate and development activities.

The many communities and cultures of Western Sydney and the continuous cultural connection to Country of First Nations communities are also acknowledged.

In developing this four-year Strategy, we have considered:

- national and international approaches in sustainability and resilience
- industry best-practice
- the latest innovations
- levers available to us to drive outcomes, including what we buy and who from
- local communities
- engagement with stakeholders and subject matter experts
- Government policy and best practice.

Work will continue with our partners across industry, local government, the education sector, and the community to develop and evolve this Strategy, which is informed by the United Nations (UNs) Sustainable Development Goals (SDGs) adopted by 193 member states in 2015, including Australia.

BDA acknowledges the importance of the UN's SDGs and is committed to providing sustainability outcomes into the projects we deliver for the benefit of Western Sydney communities.

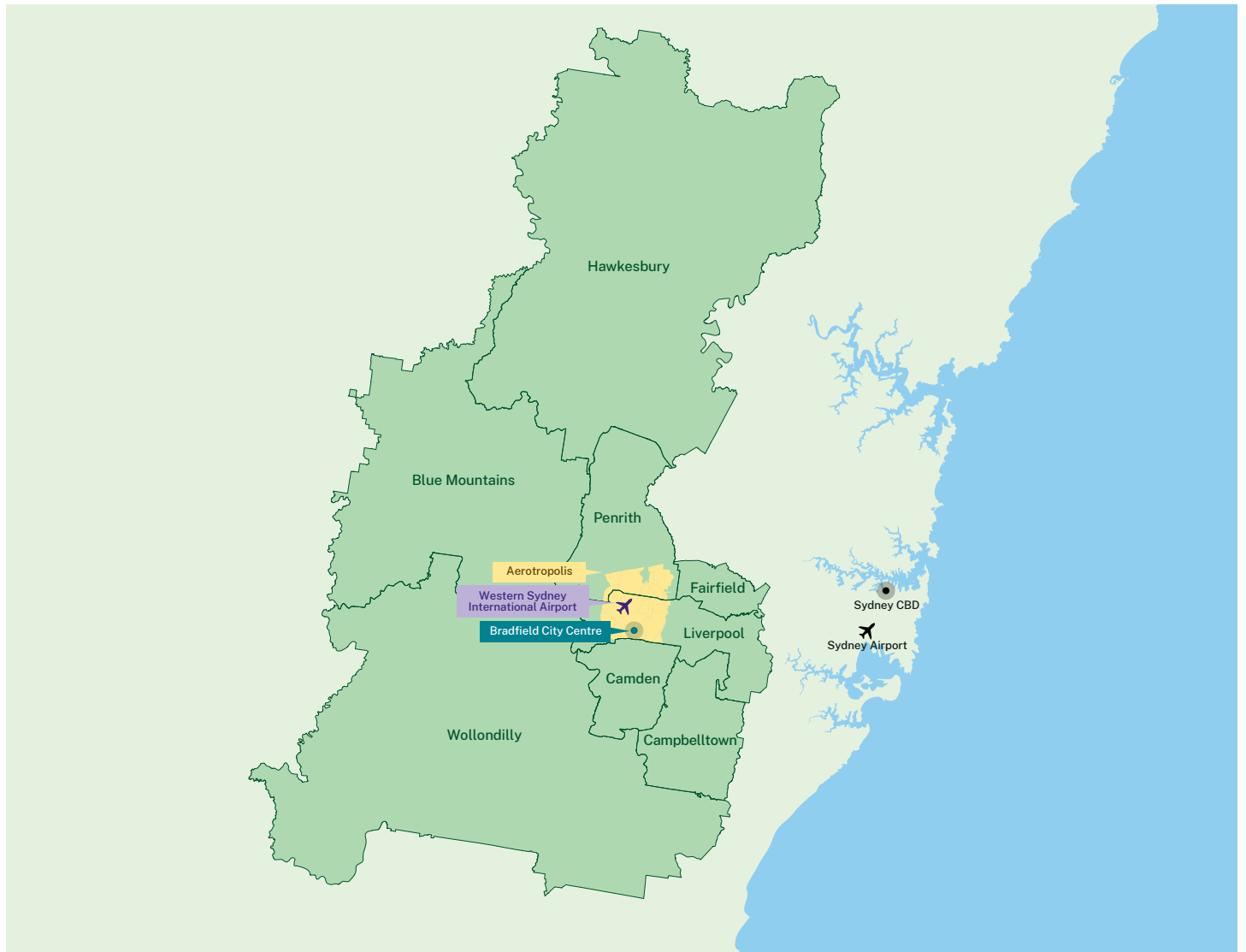
This Strategy reflects the understanding that environmental, social, and economic sustainability are inherently linked, and are all vital to improving community prosperity and wellbeing.

BDA is seeking to drive a significant benefit and to create social value when buying goods and services, and to ensure this is done ethically.

We have set targets that will challenge us and industry as a whole. As our work develops, we will reflect on our approach, monitor and report on our progress, and take advantage of new advances in environmental, social and economic sustainability.



The Western Parkland City



Western Sydney is one of Australia's most exciting and fastest growing regions.

Covering the eight local government areas of the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith, and Wollondilly, the parkland city is one of the most economically important regions in the country. Its industries and thriving city centres generate more than \$56 billion in economic activity for Australia every year.

At 800,000 hectares in size, the Parkland City makes up about 65 per cent of Greater Sydney.

The region is a place of tremendous economic growth and opportunity, built with diverse communities and cultures.

By 2036, around 1.4 million people will call the region home, accounting for more than 20 per cent of the predicted population growth in NSW.

The cultural diversity of communities, the strong sense of belonging and cultural connectedness are major strengths.

Maintaining and expanding these attributes, will be critical to richness and character of the region.

The region is also rich in First Nations history and culture. It is home to one of the largest First Nations communities in Australia – around 33,000 people – and this number is growing.

Compared to Greater Sydney, the population is young – with a higher proportion of people aged 18 to 24, particularly in the Fairfield, Liverpool, and Penrith local government areas.

New opportunities for growth will bring many economic, social, and cultural benefits.

The new 114-hectare Bradfield City Centre, together with the Western Sydney International Airport, will be a catalyst for many of these opportunities.



Community engagement

The development of this Strategy has been shaped by feedback from the community and stakeholders.

We heard from a diverse range of people about living in the Parkland City, what could be improved and what they want for the future.

Many we spoke to were consistently proud of their communities, their culture, and their diversity. At the same time, people spoke about issues including housing affordability and the distances they travel for work.

We heard that many people in the Parkland City are family oriented and community minded and that we should build on the already-strong sense of community and belonging.

People told us that the most important opportunities provided by the transformation of the Parkland City are new jobs, careers, and educational opportunities – especially in technical and professional industries, professional industries, that are closer to home.

Young people want more opportunities for education and training closer to home, and career pathways to emerging job opportunities should be clearly communicated to school students.

The community wants Bradfield City Centre to be world-leading, and to be planned as a world-class example of a sustainable city that keeps a connection to nature, to attract people and new businesses to the Parkland City.

The community told us that Bradfield City Centre should provide a safe space for First Nations people to connect with Country by providing culturally safe spaces.

There was a strong desire to provide more opportunities for First Nations people to influence the design of the city, and that place names should be reflective of First Nations culture.

We heard that we should be embracing new technology in ways that improve health and wellbeing in the community and set a new standard for what cities should look like.

We were told to think creatively about public spaces and social and community facilities that support social connection and address climate change issues.

We heard about the communities' recent experiences with flooding and heat, and the need for greater preparation for future events.

They told us that we need to design resilient places that address the issues of a changing climate.

We reached more than 400 people in the community as part of our targeted research.

Our framework

Our approach is based on five core themes of sustainability and resilience – and five lenses through which we will deliver our work.

In supporting the Parkland City's natural systems, community wellbeing, and economic prosperity, the five themes which inform this Strategy cannot be seen in isolation:

1. Nature positive and resilient water systems
2. Adaptive, resilient, safe and well communities
3. More equitable access to jobs, careers and learning
4. Decarbonised places striving towards net zero
5. Circular systems and ethical supply chains

Within each of these themes, we will work through five lenses that will inform our day-to-day practices.

Every action we take to support sustainability will always be seen through the lenses of Country, the communities we serve, economic prosperity, open and transparent governance and the BDA's commitment to innovate and lead.

Figure 1: Our 5:5 Sustainability and Resilience Framework



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Our Themes



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Our Lenses

Table 1: Five themes of sustainability

Theme 1	Nature positive and resilient water systems Regenerating nature within a city supported by resilient water systems
Theme 2	Adaptive, resilient, safe and well communities Communities able to adapt and respond to environmental, social and economic pressures
Theme 3	More equitable access to jobs, careers and learning Opportunities to enhance local prosperity and community wellbeing
Theme 4	Decarbonised cities striving towards net zero Clean, reliable and future-ready energy systems
Theme 5	Circular systems and ethical supply chains Sustainable and efficient resource use and ethically sourced materials

Table 2: Five lenses through which we view sustainability

Lens 1	Country How are we caring for Country, engaging First Nations people and Aboriginal led-businesses?
Lens 2	Community How do our actions most fairly benefit the diverse communities of the Parkland City and how can we contribute to overall wellbeing?
Lens 3	Economy What job and business opportunities can be used or created to ethically support emerging technologies in decarbonisation, circularity, and energy efficiency?
Lens 4	Accountability Are we open and transparent about our sustainability targets, performance and credentials?
Lens 5	Leadership How are we using our work to drive innovation, solve issues, scale up new industries and create social value in the Parkland City?





Sustainability and Resilience Framework



Theme 1



Nature positive and resilient water systems



Regenerating nature within a city supported by resilient water systems

The World Economic Forum *Global Risk Report (2024)* ranks biodiversity loss and ecosystem collapse as the third highest risk to the global economy over the next ten years. It acknowledges that nature provides the resources that underpin our entire economy. Rapid development of cities and regions since colonisation has contributed significantly to biodiversity losses across Australia.

Parklands, open spaces and connected green corridors are vital to support biodiversity and are fundamental to our health and wellbeing. Our innate connection to nature, known as the biophilic response, keeps us healthier and happier. Green places and healthy ecological systems also help to attract and retain investment, businesses and workers.

Integrating greenery into the built form provides wide-spread benefits for people, the planet and places. Well-designed greening will:

- Slow and clean stormwater and reduce flooding
- Improve air quality
- Cool buildings and surrounding spaces
- Improve building and solar panel energy efficiency
- Support plant and animal biodiversity
- Create beautiful and healthy places.

The Parkland City features tracts of Cumberland Plain Woodland, listed as a threatened ecological community under the Federal *Environment Protection and Biodiversity Conservation Act 1999* and as Critically Endangered under the NSW *Threatened Species Conservation Act 1995*.

In response, the *Cumberland Plain Conservation Plan* aims to protect important ecological communities of the Cumberland Plain as new housing, jobs and infrastructure are created. This Strategy aligns with this plan and shapes how our work will protect, enhance, and connect regionally important habitat and areas of biodiversity.

Supporting a green city will require diverse and resilient water systems. As our climate changes we will experience longer and drier periods and more consecutive days over 35 degrees celsius. Water held in the landscapes of our cities and ecological systems will be critical to keeping people and buildings shaded and cool during long, hot periods.

To build a city that is cool, adaptive, and resilient to these changes, we must secure water supplies that are fit for purpose and where water is valued, protected, and conserved for people and the environment.



Artist's impression, City Walk, Bradfield City Centre

Use of a diverse range of water sources (recycled water, rainwater and greywater capture and re-use of potable water) will support green and vibrant ecosystems in our developments and precincts. Buildings and precincts will be designed to value water, minimise losses and support tenants to use water wisely.

The latest research and expertise in the integration of water sensitive urban design (WSUD) features and explore emerging sponge-city design principles, to maximise passive water capture and irrigation. Capturing water in green systems during times of high rainfall supports passive irrigation and cooling in the drier months.

Integration of green roofs and walls, as well as on-ground water-sensitive features, will support the slowing and cleaning of stormwater to protect local waterways from damage, increased sedimentation, and pollution.

Water systems in the landscape that flow into and beyond our developments will be identified, recognising that water flows that define the landscape will be critical to the future networks of greening.

The BDA will work with partners, including First Nations communities, local government, and Sydney Water to support the regional vision of a city within a parkland—supported by sustainable water systems.

Our objectives



- 1.1 Design landscaping to maximise cooling and provide community access to nature.
- 1.2 Increase the canopy, mid and low-storey plantings in the public domain and on infrastructure.
- 1.3 Diversify species selection to support healthy soil, plant, and animal diversity.
- 1.4 Protect existing ecological systems and support research into climate adapted species.
- 1.5 Maximise the retention of water in the landscape for passive irrigation and cooling and use recycled water wherever possible.
- 1.6 Slow and clean stormwater to protect local waterways by integrating green infrastructure (for example, green roofs, swales, rain gardens, tree pits) into city structures.
- 1.7 Work with partners to reduce water consumption while supporting urban greening.



Our ambition

Our targets



- T1.1 Install bio-solar or solar PV panels on 100 per cent of available roof spaces.

- T1.2 Deliver an average 40 per cent canopy cover.

- T1.3 Reduce building water consumption by 45 per cent from pre BASIX levels.

- T1.4 Integrate water sensitive urban design (WSUD) principles.

Stretch targets



- ST1.1 Deliver an average 60 per cent green cover.

- ST1.2 Increase the type, quality, and diversity of species when transforming greenfield sites to urban places.

- ST1.3 Adopt WSUD and sponge-city design principles in building and place design.



Theme 2



Adaptive, resilient, safe and well communities



Supporting our diverse communities to adapt and respond to environmental, social and economic pressures and promote community wellbeing

The changing climate is challenging us to adapt and think differently about the way that we create places. Open spaces and cities, buildings and precincts must be designed and built in a way that is safe, adaptable and that mitigates the processes that contribute to climate change.

Through the master planning process, Bradfield City Centre will be designed to reduce the need for private vehicles, promote use of public transport and support a culture of active transport. Readily available electric vehicle (EV) charging and access to bus, metro and rail public transport will also support decarbonised and accessible transport options.

Connected green links, bike (including e-bikes) and walking paths will be built across and through our new developments to make activity easy and safe – improving community connections across our developments.

Like other leading cities around the world, we know we need to build places that create safe, liveable communities – which can adapt to change. The impacts of extreme weather events, bushfires, droughts, heat and flooding are challenging communities, businesses, and the broader economy.

Ensuring places can withstand the impacts of a changing climate is critical. At the same time, local communities must be supported to build capacity to prepare for the increasing risks of major climate events and their economic impacts.

To feel and be safe is a fundamental human need and right. How safe we feel in our home and community, impacts our lives and those around us. Our work needs to build places where people feel safe and happy in their home and in public spaces.

Safety has a significant effect on health, wellbeing, and social connection. Creating safe, adaptable, and resilient places requires engaged and empowered communities, where people feel connected to each other, information is shared, and community members have a role in decision making.

Resilience is not just about the impacts of a changing climate. We have heard that many are struggling with the cost of living, long commute times, housing affordability and the economic and emotional after effects of the COVID-19 pandemic. The speed of change and the impact of these and other factors can contribute to feelings of vulnerability and insecurity.



As the city grows, it will be a priority to recognise and reflect Country and each place's local people, character, culture, heritage, natural and scenic values. We will create welcoming and inclusive environments for new residents and workers, essential for a strong sense of belonging and social cohesion.

A focus on engaging and creating opportunities for community connection is critical to reducing social isolation and increasing human resilience. We will work with First Nations people, local government, and communities to create and promote environmental and community-centric resilience initiatives.

We recognise a lack of housing diversity and affordability is a major challenge. Bradfield City Centre will include residential housing, with new homes close to jobs and transport, including affordable housing.



Our objectives



- 2.1 Design with Country, embedding First Nations knowledge and climate change risk assessment and mitigation actions within our delivery processes.
- 2.2 Support connected and cohesive communities, able to respond to, and recover from, extreme events with appropriate infrastructure and services.
- 2.3 Actively promote wellbeing and a good quality of life by creating and activating places that are safe, accessible, enjoyable, and inclusive for all, including First Nations people.
- 2.4 Deliver world-class arts and cultural infrastructure that responds to diverse community needs, and attracts investment and tourism, showcasing the best of the Western Parkland City.
- 2.5 Support Government initiatives for more affordable homes and reduce cost of living pressures through sustainability designed homes.
- 2.6 Trial innovation in prefabricated and manufactured housing design, materials and technologies to support the development of new industries.



Our ambition

Our targets



- T2.1 Minimum 5-star NABERS certified by the *National Australian Built Environment Rating System*.
- T2.2 Minimum 5-star Green Star certified under the buildings and communities' tools by the *Green Building Council of Australia*.
- T2.3 Actively promote a program of local and regional events to diverse communities within 30- and 45-minute reach by public transport.
- T2.4 Achieve or exceed the NSW Government's policies to deliver a diversity of high density housing types, price-points, and tenures.
- T2.5 Actively work to foster a positive and diverse work culture on our sites.

Stretch targets



- ST2.1 6-star NABERS certified by the *National Australian Built Environment Rating System*.
- ST2.2 6-star Green Star certified under the buildings and communities' tools by the *Green Building Council of Australia*.
- ST2.3 Certification under the Western Sydney Region of Council's Cool Suburbs Tool.
- ST2.4 Facilitate a program of early activation initiatives, community, arts and cultural events and engagement.



**Case study:
City of Vancouver,
Canada**

**Working toward more resilient
city-wide mitigation solutions,
alongside adaptation strategies**

In 2019, Vancouver City Council declared a climate emergency, and set a goal of reducing embodied carbon from construction by 40 per cent by 2030.

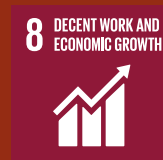
The Zero Emissions Building Plan commits to 40 per cent reduction in embodied emission by 2030. The target is intended to encourage innovation in construction materials and building design—supporting local industries to become leaders in low carbon construction.

Their Embodied Carbon Strategy informs numerous other strategies across planning, transportation, zero waste and economic development.

Theme 3



More equitable access to jobs, careers and learning



Support more opportunities to enhance local prosperity, and community wellbeing

Western Sydney is home to some of the most culturally and linguistically diverse communities in NSW. It is a place where people feel a strong sense of belonging and community pride.

These are also areas of disadvantage which can include a lack of access to jobs, education and skills development opportunities.

The new Western Sydney International Airport and Bradfield City Centre, as Government-led initiatives, will create new opportunities for local communities across the Parkland City.

As new, advanced industries begin to emerge in these focus areas—freight and logistics, agribusiness, the visitor economy, advanced manufacturing, aerospace and defence, construction, circular economy and health and education. There will be new opportunities for training and skills development in new advanced industries.

Collaboration with industry and educational institutions—combined with BDA-led initiatives like the Industry Skills Accelerator and the Advanced Manufacturing Research Facility (AMRF)—will support new skills and emerging industries.

The BDA recognises we can effect change through the goods and services we buy. We are seeking to drive social benefit through our procurement activities, particularly through the planning, design and development of the new Bradfield City Centre.

As part of the NSW Government, we must comply with the:

- *Aboriginal Procurement Policy* to help contribute to the NSW Government's strategic economic policy of Growing NSW's First Economy; and
- *Small and Medium Enterprise and Regional Procurement Policy* to increase small and medium enterprise (SME) and business participation in our projects.

We will work on initiatives to promote better gender equity in sharing the benefits of a growing city, supporting the growth of a diverse workforce across all industry sectors.

We will strengthen the advancement of women and families by providing access to childcare, supporting women in business and combine homes and jobs in Bradfield to shorten commute times.



Our objectives



- 3.1 To promote wage equity between workers in Western Sydney and Sydney's east.
- 3.2 Engage and collaborate with industry, schools, and the tertiary education sector to meet the education and training needs of industry and workers.
- 3.3 Deliver targeted education opportunities and support new career paths in future-focused industries for all genders.
- 3.4 Support community wellbeing and liveability through targeted career development, education and skills improvement pathways.
- 3.5 Leverage our procurement spend to support the growth of local businesses, jobs creation and career paths and increase social value.
- 3.6 Support positive cultural change in the construction industry through advocacy, education and engagement.



Our targets



T3.1 Deliver a minimum 40 new micro-credentials focused on the future skills and training needs of industry and the communities of Western Sydney.

T3.2 Achieve the target of 3 per cent Aboriginal representation at all non-executive salary levels.

T3.3 Utilise policy provisions that enable direct negotiation with, and engagement of, small and medium enterprises (SME), require first consideration of an SME and include in non-price evaluation criteria minimum SME participation.

In our developments and precincts:

T3.4 Publish annually an *Aboriginal Participation Strategy* to identify and address upcoming procurement opportunities and achieve the minimum requirement for 1.5 per cent Aboriginal participation in all contracts valued at \$7.5m or above.

T3.5 Achieve the target of directing one per cent of addressable spend to Aboriginal businesses as part of our contribution to our cluster's target.

T3.6 Achieve the target of a minimum of 3 per cent of total goods and services to Aboriginal businesses, which includes construction.

T3.7 Achieve or exceed NSW Government's learning and skills targets in our procurement for applicable contracts, starting with a minimum:

- 8 per cent of the total project workforce aged less than 25 years
- women are to make up 2 per cent of the workforce in trade related work
- 20 per cent of the total labour force of a project to be made up of learning workers
- 20 per cent of all trades positions on a project to be made up of apprentices
- 30 per cent of all trade positions being local workers employed and trained.

Stretch targets



ST3.1 Pilot procuring 1 per cent of total annual contract spend from social enterprises and direct employment of disadvantaged jobs seekers based in the Parkland City, and review with the intent of increasing this target if successful.

Addressable spend means a category of spend where there are opportunities for agencies to engage Aboriginal businesses as identified by NSW Indigenous Chamber of Commerce and Supply Nation (e.g. construction, food and hospitality, office supplies and printing, facilities management, graphic design, recruitment and labour hire).

Non-addressable spend are very limited opportunities to engaged Aboriginal owned businesses (e.g. financial services, business case advisory and property transactions).



Case study: Involving social enterprises in the Level Crossing Removal Project, Melbourne Australia

The Level Crossing Removal Project (LXRP), established by Victoria's Major Transport Infrastructure Authority in 2015, initially involved the removal of 85 level crossings across metropolitan Melbourne by 2025. This has been expanded to 110 level crossings by 2030.

The LXRP adopted a Social Procurement Policy to ensure that not only were goods and services procured efficiently, but positive social outcomes were generated while doing so.

Social procurement targets were embedded into project delivery including a 3 per cent total contract spend to go towards social enterprises, Aboriginal businesses, and direct employment of disadvantaged job seekers.

For the LXRP a social enterprise is a business that trades to tackle social problems, improve communities, provide people access to employment and training. They have worked to fold the use of social enterprises into business-as-usual since 2016.

The LXRP has engaged the services of many local social enterprises coming from a variety of industries including labouring, training, landscaping and gardening, catering, building and carpentry.

In just three years, contractors and subcontractors on the level crossing removal project collectively spent \$99 million on social procurement.

Theme 4



Decarbonised cities striving towards net zero



Clean, reliable and future ready energy systems

The International Panel on Climate Change (IPCC) report of February 2022 confirmed that many of the predicted changes in our climate are now 'baked in' to global systems.

To prevent further damaging impacts, every individual, level of government and organisation must work to keep a global rise in temperature to below 2°C from pre-industrial level. A critical focus globally for cities, neighbourhoods, homes, and businesses is transforming the way we live and do business.

Both the Commonwealth and the NSW government have set targets on delivering decarbonised economies. This includes the Commonwealth Government's target of a 43 per cent reduction in emissions by 2030 and net zero emissions by 2050 and the NSW Government's 50 per cent reduction by 2030 and net zero emissions by 2050.

Transforming NSW into a low carbon economy provides economic opportunities as the world accelerates efforts to decarbonise.

The manufacturing base, infrastructure investment and advanced manufacturing and future jobs focus of Western Sydney places us at the forefront of opportunities to build a strong economy based on clean, reliable, and cost competitive energy systems.

Our objectives



- 4.1 Decarbonise our operations and supply chains through purchasing decisions.
- 4.2 Electrify our developments, including providing infrastructure for onsite renewable energy generation and storage.
- 4.3 Develop Bradfield City Centre with a diverse and innovative energy mix that is EV ready and minimises the polluting impacts of energy generation.
- 4.4 Minimise the need for private vehicle movements into developments through master planning, smart city, and active transport design.
- 4.5 Test and showcase innovation in low-embodied carbon materials, energy storage and efficient energy use technology.



Our ambition

Our targets



T4.1 Net zero for Scope 1 and 2 emissions from BDA corporate activities by 2025.

In our developments and precincts:

T4.2 Achieve net zero emissions by 2025 for Scope 1 and 2 emissions

T4.3 Provide onsite renewable energy generation and storage.

T4.4 Allocate space for last mile logistics, e-vehicle charging and shared resource options.

T4.5 Install two EV charging stations in all buildings, or one EV charging station per 30 car parking spaces.

Stretch targets



ST4.1 Targeting the future inclusion of Scope 3 emissions through the development of a comprehensive net zero roadmap by 2026.



Working towards the inclusion of Scope 3 emissions

For organisations with large or materials-intensive supply chains, Scope 3 emissions are the majority of a business's carbon footprint. Because they're indirect emissions and are out of the organisation's direct control, Scope 3 mitigation requires a different approach to Scope 1 and 2.

To fully address Scope 3 emissions in developments and precincts the BDA will work towards:

- Maximising energy efficiency, including installing infrastructure and services to electrify developments, support EV use, active and low emissions transport options.
- Generating and storing renewable energy on site during the day and actively manage when energy is consumed.
- Install energy storage solutions including running trials on new or advanced battery storage solutions.
- Regularly review and update our procurement practices to ensure the latest low-carbon technologies and materials are purchased from evolving supply chains.
- Proactively engage with construction contractors to identify the lowest cost carbon abatement options in projects.
- Better understand and quantify carbon offsetting through greening and carbon sequestration.
- Diligently measure and report on emissions using validated and consistent data collection methodologies.

Case study: Leading global benchmarks of Scope 3 carbon emission targets

Vancouver City

Reduce embodied carbon emissions by 40 per cent by 2030.

Netherlands

The National Climate Agreement mandates an emissions reduction target of 3.4 Mt from the built environment by 2030, including embodied carbon emissions.

The City of Oslo

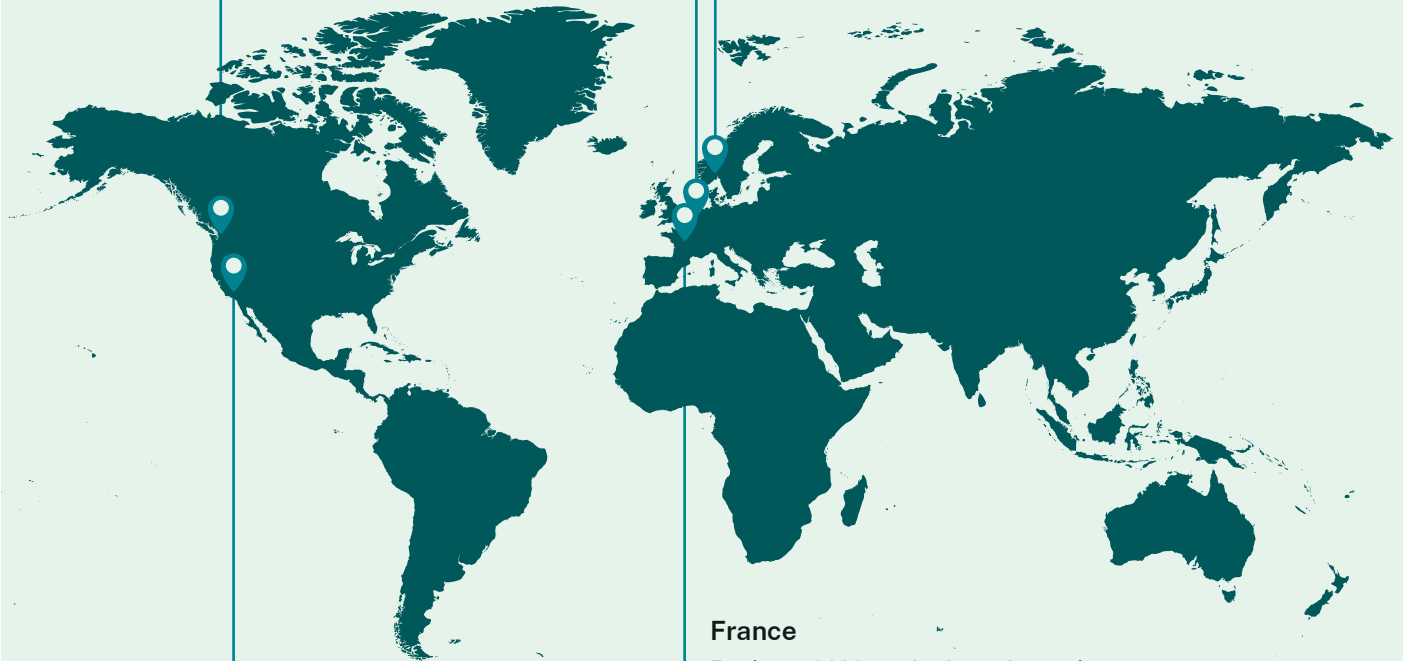
Reduce carbon emissions by 95 per cent from the 1990 baseline by 2030 and become completely fossil fuel free.

France

Reduce GHG emissions from the building sector by 50 per cent by 2030 relative to 2015 and by 87 per cent by 2050.

The State of California (Clean Buy Act, USA)

40 per cent net reduction of GHG emissions of building materials no later than 2035, with an interim target of a 20 per cent net reduction by 2030.



Theme 5



Circular systems and ethical supply chains



Sustainable and efficient resource use and ethically sourced materials

Australia generates an estimated 74.1 million tonnes of waste every year, which equates to around three-quarters of a tonne of rubbish for every person. Food wastage alone costs the Australian economy \$36.6 billion a year, and yet food insecurity persists in some parts of the community.

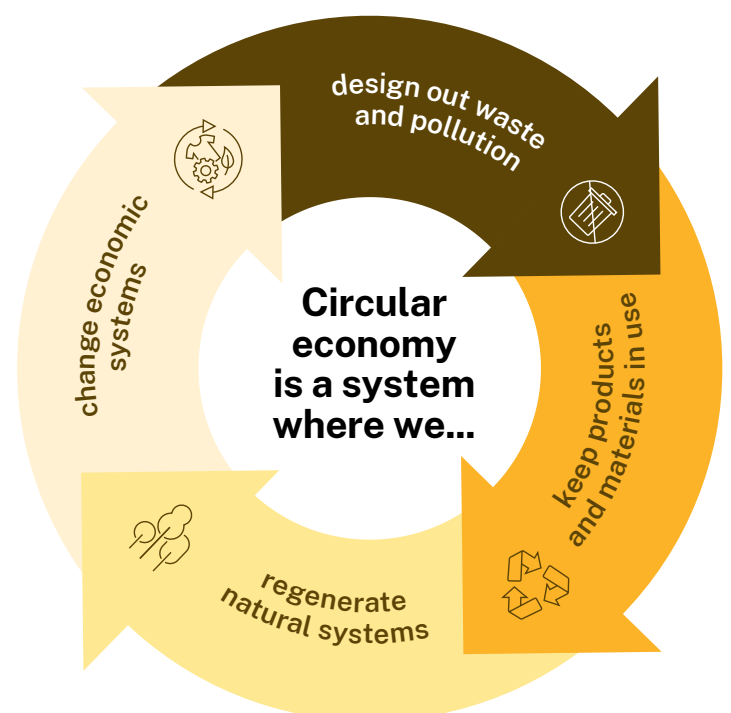
Waste management has traditionally focused on higher recycling rates, which only considers waste when it is generated. Instead, we need to make changes earlier in the process to value resources, eliminate waste, reduce the need for already-limited landfill space and reduce the incidence of plastic pollution (microplastics) in food, soil and even our own bodies.

The circular economy is the term given to the potential to reduce waste and increase economic benefits by developing systems that design out waste and value resources. The circular economy framework now popularised globally is a robust approach to efficient resource use. Its core principles are:

- Keeping materials in use at their highest value for the longest possible time
- reducing the use of raw materials by maximising, pre-use, and recycled content in products
- designing to minimise waste through the full life cycle of materials and maximising their continued, high value use

- regenerating natural systems
- supporting economic structures that underpin circularity rather than the linear economy.

Figure 3: The circular economy in practice





Artist's impression of Bradfield City Centre

A genuinely circular system requires cross-sectoral collaboration. There is enormous opportunity to embed circular economy systems across the Parkland City.

We recognise we can contribute not only to the transition to a circular economy, but also more ethical supply chains. Procurement that consciously considers the environmental and social impacts of goods or services bought will lead to more efficient resource use, less waste and more ethical sourcing.

As a NSW Government Authority, we comply with the NSW Modern Slavery Act 2018 which requires reasonable steps to be taken to ensure that goods and services procured by us, and for us, are not the product of modern slavery.

Our objectives



- 5.1 Integrate circular economy infrastructure and land use planning across our developments through the master planning process.
- 5.2 Develop a materials and procurement strategy that prioritises re-use, disassembly, non-composite materials, low or zero carbon materials, renewable resources, and recycled content.
- 5.3 During design and construction, integrate circular economy principles of designing out waste and designing for disassembly, to avoid both construction and operational waste.
- 5.4 Monitor ethical supply chain purchasing, particularly through major procurements for our developments and precincts.



Our ambition

Our targets



- T5.1 Provide space allocation for makers spaces, reuse and repair centres and community facilities.

- T5.2 Support a sharing economy by allocating space and encouraging shared transport and small tools and machines for day-to-day living.

- T5.3 Full compliance with our obligations to ensure goods and services procured are not the product of modern slavery.

- T5.4 Phase out or ban problem plastics in line with, or exceeding requirements of, the *Plastic Reduction and Circular Economy Act 2021*.

Stretch targets



- ST5.1 50 per cent reduction in construction waste generated from business as usual.

- ST5.2 30 per cent reduction in waste generation per person, rising to 70 per cent by 2050.

- ST5.3 50 per cent reduction in fit-out waste by weight.

- ST5.4 Collect 95 per cent of food waste for processing into higher value products.

- ST5.5 Design and operate a plastic waste free city.



Case study: Singapore

The Singapore government has adopted The Singapore Green Plan 2030. It is a sustainable development plan with ambitious targets for the next 10 years to assist with alignment to net zero by 2050. The targets are arranged by 5 pillars of city in nature, energy reset, sustainable living, green economy, and resilient future. Some of these targets include;

- Planting 1 million more trees
- Increasing solar energy deployment by 400% by 2025
- Reducing the waste sent to landfill by 30% by 2030
- A minimum of 20% of schools to be carbon neutral by 2030.

Sustainability and Resilience Framework



Five lenses for our thinking and work

Further to the **five themes** set out in this Strategy, we will deliver our work through the **five lenses** of First Nations' Country, the communities we serve, economic prosperity, open and transparent governance and the BDA's commitment to innovate and lead.

Using these five lenses in our thinking and actions will help us engage with the complex environmental, social, and economic systems in which we work, consider different perspectives, and find new ways to deliver solutions.



Image source: Destination NSW

Lens 1: Country

Engaging meaningfully with local First Nations people, designing with Country, employing Aboriginal people and Indigenous-led businesses and supporting business development is central to the work of the BDA.

Understanding and working with Country can also support climate change resilience, improve our land management practices, biodiversity outcomes and reduce risks associated with flooding, fires and droughts. This old and deep knowledge of place can be brought together with the latest data and research, the latest predictive modelling - in order to understand the land we are on and the changes that are impacting us.

The BDA is committed to continuing to design with Country and embrace the NSW Government Architects framework for Designing with Country. Through this, we can better understand and adapt our work to the environments we are intrinsically linked to.



Through our work, we will ask:
'How are we caring for Country, and engaging with First Nations people and Indigenous-led businesses?'

🔍 Lens 2: Community

The Parkland City is proudly home to some of the most socially, culturally, and linguistically diverse communities in Australia.

We recognise it is a place where people feel a strong sense of belonging and community pride, which is a major strength.

Rapid population and employment growth in the Parkland City provides an opportunity to rebalance the benefits of growth more equally and equitably amongst residents of Greater Sydney.

Where the BDA has direct control, and can influence others, we will pursue positive change for local communities through our work.



Through our work, we will ask:
'How do our actions most fairly benefit the diverse communities of the Western Sydney and how can we contribute to overall wellbeing?'



🔍 Lens 3: Economy

Western Sydney is well placed to take advantage of a new global focus on decarbonisation and emerging green industries, given its strong manufacturing, resources and industrial base.

Decarbonisation of construction materials, renewable energy, green hydrogen, plastics replacements and nature-based solutions are all emerging as business growth areas. As new industries emerge, capacity building will support the transformation of the region's existing and future labour markets.

The BDA's existing initiatives, including the Industry Skills Accelerator, the Advanced Manufacturing Research Facility (AMRF) and construction of Bradfield City Centre, provide opportunities to upskill local workers and position them to take advantage of new jobs as they emerge. Creating a greater diversity of jobs that offer higher wages and career path progression to address the wages inequity in Western Sydney.

Further, through the BDA's investment concierge services we will continue to attract new businesses, support existing businesses and work with economic development teams in local government to support businesses in clean and emerging green industries.



Through our work, we will ask:
'What job and business opportunities can be used or created to ethically support emerging technologies in decarbonisation, circularity, and energy efficiency?'

Lens 4: Accountability

We are committed to good governance and making decisions that benefit the communities of the Parkland City – now and into the future. We are building an effective, accountable, and inclusive organisation.

This Strategy sets ambitious sustainability targets. As we strive towards them, we will openly report our progress. Key to being accountable and transparent is being clear in setting out our targets, measuring our progress with rigour and reporting on our performance.

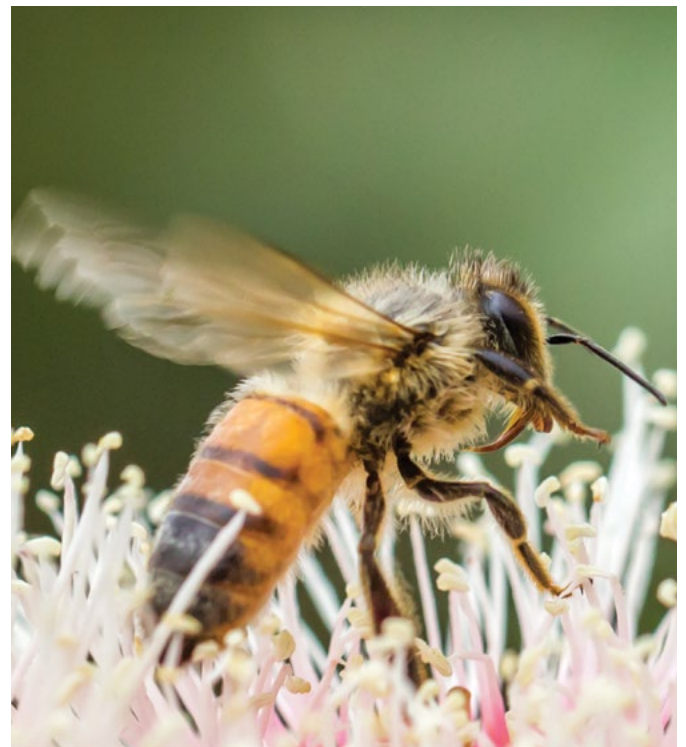
We recognise one of the most significant areas where we can take social responsibility for our actions is through the goods and services we procure.

Goods and services must be ethically sourced, address the issue of modern slavery and where possible direct our resources to local, diverse businesses and those marginalised in our communities.

We will openly report on how the resources of the BDA are being used to support positive environmental and social outcomes through our procurement practices.



**Through our work, we will ask:
'Are we open and transparent about our sustainability targets, performance and credentials?'**



Lens 5: Leadership

To address the complex issues connected to sustainability, resilience, and a changing climate, we must innovate and adapt, seek answers to complex problems, and test new approaches.

Creating a sustainable community requires all parts of our society to have the knowledge, skills, capacity, and motivation to respond to complex environmental, social, and economic sustainability challenges. This is a radical shift from business as usual.

The BDA is well placed to take a leadership position in sustainability through its vision and work to create Bradfield City Centre as a vibrant, 24/7 global city, driving advancements in industry and acting as a central gathering place for arts, culture, and entertainment

The new city can be used to conduct research into addressing some of the complex issues surrounding climate change.

We will continue to look for opportunities to work with key research partners to test technologies, approaches, and ideas in a real-world environment. Ideas that will support industry change, and ideas that can be scaled up.

We will share the knowledge and skills we gain through our work, ensuring others can learn from our experiences.



Through our work, we will ask 'How are we using our work to drive innovation, solve issues, scale up new industries and create social value in the Parkland City?'

Glossary

AMRF	Advanced Manufacturing Research Facility. Specialist buildings within Bradfield City Centre, designed to support expansion into new advanced manufacturing industries and research.	Industry Skills Accelerator	A system of micro-credentials or short, targeted courses that support industry to transition the workforce to future focused jobs.
Biosolar	An integrated green roof and solar panel system.	NABERS (National Australian Built Environment Rating System)	A national government rating system that measures the environmental performance of buildings. NABERS measures operational energy, water, waste and indoor environment of buildings or tenancies. 6 star is the highest rating.
Canopy cover	Is the measure of the physical coverage of the combined tree canopy (crown of the tree) over an area of land.	Net zero	A higher achievement than carbon neutrality, where emissions of greenhouse gases are balanced by removals over a specified period. This requires extensive emissions reductions of 90 per cent or more from the baseline with limited use of carbon offsets.
Carbon neutral	An interim goal, where net carbon emissions associated with an organisation or activity are temporarily equal to zero. Emissions have been reduced and certified carbon offsets have been purchased to neutralise the remainder of all emissions.	Plastic waste free	Where plastic waste that is generated is collected and reused for beneficial purposes.
Climate positive	When activity goes beyond achieving net zero carbon emissions to create an environmental benefit by removing additional greenhouse gases from the atmosphere.	Sharing economy	A system set up to share items and resources, rather than having them in private ownership e.g. car share programs, or tool libraries. Typically provided at low or no cost.
Cool Suburbs	Australian rating and assessment tool for building heat resilience in urban planning. Used to inform decision-making processes for precinct development to reduce issues caused by urban heat in cities.	Sponge City	Designing cities to absorb and retain water during rain and storm events, in order to passively cool and irrigate the city during drier periods.
Ethical supply chain	Supporting an ethical supply chain involves incorporating social and human rights and environmental considerations into business actions and procurement decisions.		
Green cover	A broad range of strategies to integrate green, permeable and reflective surfaces into urban environments, including green roofs and walls, permeable paving, street trees, raingardens etc.		
Green Star certification	An internationally recognised rating system for sustainable, healthy, resilient, positive buildings and places. Developed for Australian, certification is carried out by an independent review panel. 6-star Green Star certification is the highest rating.		

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Contact us

This Strategy sets our ambition and targets, some of which will take time, research and testing to achieve.

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