The population is forecast to grow by 65,050 to 450,300 in the Illawarra between now and 2031. We need to plan for this growth to make sure that we can provide the 45,000 new homes and 32,150 new jobs that the future residents will need.

The Region offers an appealing range of lifestyle choices, good jobs, a great environment and high calibre education and health facilities. It is also confronting some challenges. Jobs growth in the Illawarra over the last 10 years has been slow, averaging 1.7 per cent per annum; traditional industrial jobs have been declining and too many residents have to rely on commuting to jobs in Sydney. Housing delivery has slowed in recent times while house prices have been rising. Infrastructure has sometimes fallen short when it is needed. The Region’s population is also ageing – by 2031 one in four residents will be 65 years and over.

We need to meet these challenges head on if we are to help the Illawarra grow and achieve greater prosperity in the years ahead while keeping the Region’s enviable reputation for great lifestyles. This draft Illawarra Regional Growth and Infrastructure Plan outlines how we can do it. It is the product of extensive community engagement and is based on the most up-to-date evidence into those areas where growth will have the greatest impact – housing, jobs, the economy and infrastructure.

Growing and diversifying the economy to provide local jobs is one of the draft Plan’s highest priorities. It outlines new sectors which have economic growth potential and the role that strategic regional assets could play in transforming the economy.

The Region is fortunate to have sufficient land available for housing. The draft Plan sets out where this housing should be located and targets for different types of housing. It outlines existing infrastructure commitments and prioritises new infrastructure to support growth, and it identifies the strategic infrastructure that can help to drive additional growth for the Region.

The draft Plan emphasises the importance of protecting the environmental values that are so highly prized by residents and visitors and of having a strategy which respects the value of the Region’s agricultural land and its resources.

To deliver and sustain the housing, jobs, economy and infrastructure that will help the Illawarra to flourish into the future we need a plan – and we need state and local governments and key stakeholders to work together to achieve it.

I encourage you to have a look at the draft Plan and tell us what you think.

Pru Goward
Minister for Planning
OUR PLAN FOR THE ILLAWARRA – AT A GLANCE

The lifestyle opportunities, the appeal of the natural environment, the availability of jobs, the timely delivery of infrastructure and the cultural diversity of the community has made the Illawarra a very appealing place to live. These attributes have also played a part in the forecast growth in population from 385,250 to 450,300 by 2031 – an increase of 65,050 people.

To meet the demands of this growing population, the Region will need 45,000 new homes and 32,150 new jobs. It will need upgrades to existing infrastructure and investment in new infrastructure to deliver the services for a community that is not only growing but also changing – by 2031, there will be an increasing ageing population, and there will be more one and two-person households.

The Illawarra Region has a strong foundation to accommodate growth. It offers its residents great lifestyle choices; a stunning environment with unique landscapes and biodiversity; well established as well as innovative work opportunities; convenient and easy-to-get-to centres and precincts for shopping and other services; a rich diversity of people and culture, and high quality educational and health facilities.

As the Region grows these things will remain important, but critical to the wellbeing and the resilience of the community in the future will be a strong economy that can create new jobs and business; housing that meets the changing needs of the community; vibrant public places that provide social and cultural gathering places, and well-designed neighbourhoods that are safe, provide opportunities for healthy and active lifestyles and which contribute to social cohesion.

Government has an important role to play in creating the jobs and a high quality living environment through the services it provides and the infrastructure it creates. However, Government on its own cannot create all the jobs necessary to sustain a strong economy – it needs to ensure that the private sector has the confidence and certainty to invest. This is why a draft Regional Growth and Infrastructure Plan (draft Plan) for the Illawarra has been prepared. It provides a strategic framework that will guide growth in the Region until 2031. It will outline where and how growth will occur and the role that specific stakeholders will have in meeting the community’s needs for new housing, jobs, infrastructure and services, as the Region grows.

This draft Plan is the product of comprehensive evidence gathering, and detailed analysis of community and stakeholder feedback following the community engagement undertaken during the exhibition of The Illawarra over the next 20 years discussion paper. The key elements of the draft Plan follow:

Growing the economy to create new jobs

The draft Plan makes growing the economy its key priority. It focuses attention on the transformative role that key regional assets such as Wollongong Hospital, University of Wollongong, Port of Port Kembla and the Shoalhaven Defence Bases already play in stimulating growth in the economy. It suggests that with further investment and focused effort, these assets can genuinely shape growth and transform the Region to drive jobs and housing outcomes.

The draft Plan also focuses on the key sectors that have the potential to diversify the economy and create new jobs in established areas such as retail, administration and construction, and growth areas such as tourism, health, disability and aged care, ICT/knowledge services, education, transforming manufacturing, and logistics and port-related activities.

The draft Plan outlines a framework to support economic growth in the Illawarra that will give impetus to these areas by identifying some clear actions by State and local authorities, including particular actions that can be delivered through the planning system.
Revitalisation of Wollongong Centre through urban renewal

The draft Plan makes a commitment to prepare an urban renewal strategy for the Wollongong Centre to examine the feasibility of existing development controls, review how the different precincts of the Centre operate, how these precincts integrate through public and private transport networks, as well as identify specific infrastructure and public domain projects that may be necessary to activate new development in the area.

Well located, more diverse and more affordable housing

Providing a mix of housing which caters for people at all stages in the life cycle, is close to jobs and services, affordable, and well-designed, is a high priority in the draft Plan because it will contribute to growth and meet the needs of the changing make-up of the population.

The draft Plan proposes an almost equal sharing of new housing between new greenfield and existing urban areas, reflecting current market trends. Housing opportunities will be available from existing new release areas such as West Dapto, Calderwood and Nowra-Bomaderry, plus a number of smaller release areas such as Bulli, Shell Cove, West Culburra and South Gerringong, as well as existing urban areas such as the corridor between Fairy Meadow and Thirroul (the northern growth corridor), Wollongong City Centre and Kiama Town Centre.

This 'balanced' approach to housing is supported by the existing infrastructure planning and delivery programs currently being developed and implemented by servicing authorities in the Region.

Infrastructure in the right place at the right time

Infrastructure is critical to the proper functioning and wellbeing of the community both now and in the future. The draft Plan identifies infrastructure priorities for new development, including road and rail infrastructure, public transport, new hospitals and health services, and new schools and education services. It also identifies information technology and telecommunications as a priority.

The Government will use the draft Plan when it undertakes its growth infrastructure planning so that every year responsible agencies will be asked to assess when to schedule new infrastructure.

Securing the productivity of agriculture and the viability of resources

The draft Plan acknowledges the value of agriculture and resources like water and hard rock to the regional economy and to Sydney. It recognises the potential land use conflicts that arise from the proximity of agricultural land and resource rich areas in the Region, and outlines the principles that should guide the protection of food and fibre producing lands. Taking a more strategic approach to securing the long term productivity of natural resources in the Region will provide greater certainty to rural producers and the resources sector.
Protecting and enhancing the natural and cultural environment

The stunning natural environment in the Region offers quite distinct lifestyles – coastal, urban and rural – for its residents, and adds to the appeal for visitors. As a home to the Dharawal people, the Aboriginal communities of the Illawarra have strong cultural connections to the Region's landscape. The draft Plan focuses on protecting the landscapes and character of distinctive settlements, particularly in the southern part of the Illawarra and recognising and protecting important cultural and Aboriginal sites. The draft Plan identifies the importance of protecting the biodiversity of the Region including the Illawarra Biodiversity Corridor, as well as ensuring new development areas at West Dapto and Nowra-Bomaderry maintain or improve biodiversity values.

Taking action

The draft Plan proposes key actions that need to be implemented over the next five years to ensure that growth in the Illawarra is balanced and sustainable, consistent with the 20-year framework.

The proposed actions will guide the Local Plans prepared by the four Illawarra Councils, as well as the Government’s focus for planning activity in the Region. Cooperation between State and local authorities, business and industry groups (including the development industry), the health and education sectors, as well as the broader community will be essential to ensure that the growth identified in the draft Plan is delivered.

Ongoing annual monitoring will occur to ensure the final Regional Growth and Infrastructure Plan is meeting its objectives and its targets. The entire plan will be reviewed at least every five years.

Implementation of the final Plan will be a shared responsibility with councils, other state agencies, and the development and services sectors. An Illawarra Regional Growth and Infrastructure Plan Advisory Group will be established to oversee implementation of the Plan, and specifically, progress on the identified actions. To ensure the Advisory Group’s work is carried out in a rigorous and transparent way, the draft Plan proposes the appointment of an Independent Chair and that membership be opened to Councils and key state agency representatives in the Region.

Opportunities and challenges for the Illawarra

To grow the Illawarra we need to understand the challenges to be overcome, as well as the opportunities on which we can base our plans for growth. Not only do we need to plan for the additional 65,000 people projected to be living in the Region by 2031 (one in four will be aged over 65 years), we also need to ensure that we are creating opportunities for local employment and providing infrastructure and services.

The growth challenge for the Illawarra means that we need to plan for 45,000 new homes and 32,150 jobs by 2031. To address the challenges of growth we need to work collaboratively with all people, agencies and groups that have an interest in the Region, including the private sector. We need a plan that will show how to deliver homes that are affordable and close to jobs and services, create a strong and diverse economy that grows opportunities for jobs, provides infrastructure which supports growth, while maintaining the high quality environment and lifestyle for which the Illawarra is renowned.
Growing and diversifying the regional economy

Between 2001 and 2011, jobs growth in the Illawarra has been slow, averaging 1.7 per cent per annum, while at the same time we have seen a significant decline in industrial jobs at Port Kembla. On top of these challenges we are also experiencing an increasing ageing population and a continuing reliance on people commuting to jobs in Sydney. Growing and diversifying the economy to provide local jobs is the number one challenge for the Illawarra.

We need to increase local employment opportunities and at the same time improve access to job opportunities in Sydney. We need sufficient capacity to accommodate industrial, manufacturing, retail and office opportunities and promote the Region as a place to do business.

Delivering on the economic and jobs growth challenge requires a coordinated effort between Government, councils, and the private sector. No one sector can achieve jobs growth on their own and we must work together to deliver a strong and robust economy. The draft Plan identifies clear economic growth opportunities for the region in sectors such as tourism, health, disability and aged care, education, ICT/knowledge services, advanced manufacturing and logistics.

The draft Plan also recognises the significant opportunity to revitalise and renew key precincts in the Wollongong Centre, for example West Crown Street, to drive economic diversification and provide better service provision. The draft Plan proposes to achieve this through an urban renewal strategy for the Centre, including improving the connection between the Hospital, Commercial Core, University, and the city’s beaches.

Delivering a diversity of housing choices that are more affordable

Housing starts in the Illawarra have remained low in recent times while the cost of providing housing has continued to escalate. This is not a sustainable scenario. The draft Plan identifies areas for growth, assesses the development feasibility of achieving growth in those areas, and links development with infrastructure to support these growth outcomes.

The draft Plan shows that the housing needs of the Illawarra can be met through the development of housing opportunities presented by places such as the Wollongong Centre and the corridor between Fairy Meadow and Thirroul. This corridor, in particular, can play a significant role in transforming the Illawarra by capitalising on its access to job opportunities in Sydney.

The draft Plan also provides opportunities for greenfield development, primarily in the West Lake Illawarra areas and Nowra-Bomaderry, as well as some smaller areas such as Bulli, Shell Cove, South Gerringong and West Culburra. Delivering a diversity of housing choices in these areas, unlocking housing potential by clearing blockages such as the coordination of infrastructure, and the resolution of access and development assessment issues, are all issues the draft Plan will address. Providing a greater number and diversity of housing opportunities will help to reduce pressure on house prices and contribute to greater affordability.
Providing infrastructure to support growth

Infrastructure for the Illawarra has not always been delivered with housing and employment developments at the right time. We need to ensure that there is sufficient infrastructure capacity to respond to the demands for housing in existing areas, and that infrastructure priorities for development in new release areas are prioritised. We also need to consider the longer term benefits of investing in strategic infrastructure and the role this can play in generating economic and jobs growth for the Illawarra.

The draft Plan takes a strategic approach in identifying infrastructure required to support both housing and economic growth, and will be used by Government to advise infrastructure agencies on when new investments should be timed.

Balancing growth with environmental outcomes

The Illawarra’s natural and cultural environment supports its residential lifestyle and identity, as well as tourism and agricultural industries. As the Region grows, we need to ensure that these values are protected so that our coastal, urban and rural lifestyles are valued as one.

The draft Plan focuses on protecting the character and landscapes of settlements; the opportunities for biodiversity connection and conservation; providing certainty to resource extraction; and identifying regionally significant agricultural land.

HAVE YOUR SAY

Feedback from people living and working in the Illawarra will play a vital role in helping to shape the final Plan.

You can have your say by:
- taking the community survey
- filling in a submissions form
- attending a community event
- joining the discussions on Facebook and Twitter.

For more information visit www.planning.nsw.gov.au/illawarra

You can also send a submission by:
- email to Illawarra@planning.nsw.gov.au
- post to Department of Planning and Environment, PO Box 5475, Wollongong, NSW 2520.

We publish submissions online, which is why it’s important to read our privacy statement at www.planning.nsw.gov.au/privacy

Submissions close on 7 December 2014.
INTRODUCTION

In 2013, we released a discussion paper called *The Illawarra over the next 20 years* to promote discussion in the community about how the Region should grow by 2031. At the time, the Illawarra region included the Local Government Areas of Wollongong, Shellharbour and Kiama. Since then, we have recognised that the Shoalhaven has important economic and housing connections and should be included in the Illawarra region.

The Region has many advantages – it is only an hour and a half from the centre of Sydney and has an abundance of assets including a dramatic coastline and the Illawarra escarpment, strategic economic assets including the Port of Port Kembla – an international trade gateway; Wollongong University – a major regional university; the Illawarra Regional Airport; and a skilled and diverse workforce.

The Region is fortunate to have enough housing opportunities to meet expected growth – in fact there is potential to accommodate more growth. However, identifying opportunities for new housing without addressing where the new population can find work is unlikely to see projected growth fulfilled.

Our plan for the Illawarra recognises the importance of building a strong, diversified and stable economy for the Region as a means of encouraging future growth. We see opportunities to capitalise on the Region’s economic and environmental assets to be a world class region. To make this a reality however, we have to look at what drives growth in the Region, overcome any impediments and make the pathways to growth easier.

**Why a regional growth and infrastructure plan**

This draft Regional Growth and Infrastructure Plan (draft Plan) is the framework we are using to guide growth between now and 2031. It fully integrates land use planning with transport and other infrastructure to ensure that growth is matched by infrastructure and services to support local communities. It supports the goals, targets and actions contained in NSW2021, the NSW Government’s plan to make NSW number one, and has been prepared in conjunction with the NSW Long Term Transport Master Plan, the Illawarra Regional Transport Plan, and the NSW Government’s State Infrastructure Strategy.

The draft Plan for the Illawarra outlines:

- where new housing should be best located to meet both community and market demands
- where development for industry, commercial or retail activity is best located to tap into job opportunities and changing consumer demand
- the significant regional assets and other key sectors which have the potential to stimulate further economic growth
- where the NSW Government’s resources are best targeted for new and upgraded infrastructure investments
- how important environmental values, sensitive landscapes and cultural assets, and important natural resources can be identified and factored into decisions about where growth should, or should not occur.

**What the community had to say**

We have developed the draft Plan with the benefit of feedback from the community, Councils and stakeholders, following the exhibition of the discussion paper *The Illawarra over the next 20 years*. There was an extensive engagement process around the discussion paper involving a letter box drop to 118,619 homes and businesses in the Illawarra, seven published editorials in local newspapers, three radio interviews, 5,254 website visits and a total reach on Facebook of 8,086 people.

Evidence to underpin the plan

In addition to investigating the priorities and aspirations of the local community through the discussion paper process, we have also collected and analysed the data and evidence associated with population growth and change, the nature of the regional economy, the housing and employment market, the location of important environmental and resource areas, and natural hazards.

The following tools were used to develop the evidence which forms the basis of the draft Plan:

- **Urban Feasibility Model** – this is a strategic planning tool which calculates the housing potential of each Council area in the Region, based on existing planning and development controls, and the economic feasibility of delivering housing, based on development costs and the local property market

- **Review of Illawarra Housing Markets** – this provides a high level strategic assessment of housing demand and capacity in the Region and includes an analysis of the trends and drivers in the residential market

- **Housing Submarkets in the Illawarra** – this identifies the geographic housing submarkets operating within the Illawarra, and an assessment of the demographic profile of each submarket and its relationship with housing choice

- **Review of Illawarra Retail Centres** – this looks at the trends and drivers in the retail market, capacity and supply blockages, and projects future requirements for retail centres in the Illawarra

- **Industrial Lands Study** – this is an updated and detailed study into the current state of industrial land in the Illawarra

- **Illawarra Urban Development Program** – this is the Government’s key program for managing land and housing supply in the Illawarra region. It is developed with the advice and expertise of councils and local development/property market experts.

This evidence base is publicly available and can be found at: www.strategy.planning.nsw.gov.au/illawarra/resources/

We have used the plans and capacities of infrastructure providers to understand infrastructure issues. These plans include the State Infrastructure Strategy, the Long Term Transport Masterplan and the Regional Transport Plan, as well as specific agency plans like Sydney Water’s Water and Wastewater Strategy for West Dapto. We have also had extensive discussions with infrastructure providers to develop this plan.

To assist in understanding the strategic infrastructure needs of the Region, Infrastructure NSW commissioned work titled *Infrastructure for Illawarra’s economic future (2014)* which developed baseline economic forecasts and modelled a series of infrastructure investments for the Illawarra region.

Other studies and processes which have been developed by key stakeholders in the Region have also helped to inform this draft Plan, including Councils’ Community Strategic Plans and work undertaken through Regional Development Australia Illawarra’s *Transition Illawarra* Project which has helped us to understand the Region’s economic opportunities and infrastructure priorities.

How the plan will link to the new planning system

This Regional Growth and Infrastructure Plan is part of a broader framework to govern how planning and development controls are prepared that also includes State Planning Policies and Local Plans.

State Planning Policies provide overarching objectives, priorities and policy directions for matters that are significant and apply across the State. We are developing the policies to focus on key areas such as Housing, Infrastructure, and Environment and Heritage.

Local Councils will develop Local Plans to meet the objectives of the State Planning Policies where relevant to their local area, as well as applying the actions required by the Regional Growth and Infrastructure Plan for their particular area. They will do this by updating or amending their Local Plan in line with the final Regional Growth and Infrastructure Plan.
The Illawarra has the opportunity to transform itself, to use its available housing supply, its key strategic assets and its connections to Sydney and beyond that to the global economy, so that it can create a vibrant and flourishing Region.

To take on an optimistic growth path, the Region will need to take the places and the assets that are already income and employment generating and use these to transform the economy. This will require further investment, coordination and in some cases, the review of planning and development controls, to maximise the growth potential of these assets.

We have identified six transformative places that:

- play a role beyond their local area and are important contributors to the regional, and in some cases State economy
- have good prospects for additional investment.
- are in a strategic location and have a key economic function
- have the potential to drive additional economic growth through collaboration across all levels of government and industry.

They are:

1. **Wollongong Centre**
2. Northern Growth Corridor
3. Regional Release Areas of West Lake Illawarra (West Dapto, Tallawarra and Calderwood) and Nowra-Bomaderry
4. Nowra Centre
5. International Trade Gateway at the Port of Port Kembla

To implement the Illawarra Regional Growth and Infrastructure Plan we will prepare an action plan for each of the transformative places to maximise their growth potential.

1. **Wollongong Centre**

Wollongong is a regional city with the ability to drive economic growth and employment across a range of sectors. It currently supports 30,000 jobs in sectors such as tertiary health and education, business uses, public sector services, innovation, as well as research and development. It is also the key location in the Illawarra to accommodate high density apartment living. The Centre is the central gathering place for civic events, community activities, social gatherings, and for workers, residents and visitors to the city.

There is already a lot of development that is or has occurred in the Wollongong Centre. It is one of the more vital and active parts of the Illawarra. By building on this activity, Wollongong Centre can transform the region, driving economic growth through its strong commercial and retail functions, expanding its innovation, research and development, and entrepreneurship activity, in addition to providing a greater range of much needed affordable housing choices.

Wollongong Centre incorporates a number of specialist functions including health, education, commercial (including specialty retail) and recreation. These functions have strong links to each other, are connected by public transport services such as the Gong Shuttle and are grouped into a number of precincts including:

- Health and Medical precinct
- Education Corridor
- Commercial Core
- West Crown Street
- Waterfront precinct.
The Centre also provides a number of different housing types but the cost of housing (or affordability) is an issue. There is strong demand for affordable housing for students, medical interns and key health workers. These precincts are also attractive locations for housing for seniors because of their proximity to health care, cultural activities and other services.

**Health and Medical Precinct**

The Health and Medical Precinct incorporates a cluster of major health and medical facilities including medical suites, laboratories, training and rehabilitation centres. At the core of the precinct is Wollongong Public Hospital which is the Illawarra’s major referral and teaching hospital. The hospital is closely affiliated with the University of Wollongong and the Illawarra Health and Medical Research Institute. The precinct will be supported by the Hospital’s $186 million expansion, a new $120 million Wollongong Private Hospital, and a new mental health hospital.

The precinct is connected to the commercial and retail core of Wollongong by West Crown Street. This area has been in decline for many years, but has good connections and burgeoning opportunities for urban renewal.

**Education Corridor**

The University of Wollongong, the Innovation Campus, the Institute of TAFE Illawarra and two high schools, form an education precinct which offers potential economic and employment opportunities, particularly around the ICT and knowledge service sectors.

The Innovation Campus is a centre of innovation and research excellence as well as being home to a number of leading research institutes working to develop solutions to a number of scientific, engineering and social issues. Some of the research projects include the development of “intelligent” innovative materials with the potential to regenerate damaged human nerves, new techniques for sustainable building design, and the latest developments in digital media.
The University estimates that it contributes $659 million to the Gross Regional Product of Wollongong, and employs 4,825 full time equivalent jobs. To enable the University to grow, and to leverage off its economic and research potential, issues such as congestion and public domain (safe and accessible public spaces) have to be managed. As one of the most congested and highly trafficked areas in the Illawarra, the precinct can benefit by more physical and economic integration with other parts of the Region.

Commercial Core
The commercial core of Wollongong is a vibrant and diverse centre for commercial, retail, cultural, tourism, housing, recreation and entertainment activity.

It is estimated that the Centre currently has one million square metres of commercial floor space, with current planning controls allowing for approximately eight hundred thousand square metres of additional capacity. The property and development industry has repeatedly expressed frustration that there is a lack of supply of 'A class' commercial accommodation? While approvals have been given for additional commercial space, this is only slowly being translated into new supply. There is an opportunity for the Region to attract more commercial activity by making more high quality office space available. The challenge remains for this area to translate development potential into development activity.

The commencement of GPT’s $200 million West Keira development is contributing eighteen thousand square metres of retail space to the centre and will play a crucial role in connecting the Commercial Core to West Crown Street. It also reflects confidence in the future of the commercial core which can assist to encourage further investment.

Wollongong City Council is currently undertaking a Public Spaces Public Life Study and the Crown Centre West review to look at potential enhancements to the Wollongong Centre. This is in addition to Council’s $34 million infrastructure renewal program which incorporates Crown Street Mall, the Town Hall and the Blue Mile. Other recent initiatives in the centre include the provision of free Wi-Fi, traffic improvements from the relocation of bus stops, and the development of an Evening Economy Policy to create a more vibrant and diverse Centre between 5pm and midnight.

In 2012, the Property Council of Australia identified the need for a vision for the city of Wollongong and opportunities to re-energise the city. The outcomes of this work, titled ‘Shaping Wollongong’, describes 10 ambitions for the transformation of Wollongong including revitalising the city, connecting people to places, nurturing innovation, and enhancing vibrancy and inclusiveness? This draft Plan supports the key ambitions of ‘Shaping Wollongong’.
Revitalisation of West Crown Street

To generate activity in West Crown Street, there are opportunities to build on the strong relationship and connection between the Health and Medical Precinct and the Commercial Core, and to build on the links to the Education Corridor provided by the Gong Shuttle. This can be supported by facilitating the movement of pedestrians to connect places by improving linkages and enhancing public domain.

This includes:
- reviewing the potential of under-utilised sites around the railway station and West Crown Street, including an analysis of the feasibility of planning controls
- improving public domain such as shopfront façade, pavement, lighting, signage and tree planting
- integrating continuous paths between key places such as the railway, Commercial Core, and the hospital
- linking to beaches and the entertainment precinct; the western and eastern side of the railway line; and to key bus stops such those on Burelli Street and Crown Street
- ensuring that links between key places and public transport nodes are safe with high quality lighting and the presence of people.

Waterfront Precinct

The Waterfront Precinct encompasses beaches, parks, Wollongong Harbour, the Novotel Hotel, and a number of restaurants and cafés. It also has major recreation and entertainment facilities including the Wollongong Entertainment Centre and WIN Stadium. This area is an important cultural centre for the Region and has the potential to encourage more tourists.

Pedestrian and cycle routes have already been provided along this precinct as a result of Council’s Blue Mile project. Better links from this precinct and beyond are now required to enhance the connection with the Commercial Core, Wollongong Hospital and the University.
The strategic actions for the transformation of the Wollongong Centre are:

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<th>ACTION</th>
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| **1.1 Develop a Wollongong Centre Action Plan.**  
The Action Plan will identify specific actions including: | Department of Planning and Environment; Wollongong City Council | Short |
| - An urban renewal strategy for the Wollongong Centre to examine the feasibility of existing development controls, review how the different precincts of the Centre operate, how these precincts integrate through public and private transport networks as well as identify specific infrastructure and public domain projects that may be necessary to activate new development in the area. | Department of Planning and Environment; Wollongong City Council; NSW Health; Transport for NSW | Short |
| - Identifying the growth trends and potential of the University, coordinate infrastructure and access arrangements to the University, and identify student accommodation opportunities. | Department of Planning and Environment; Wollongong City Council; TAFE Illawarra; University of Wollongong; Transport for NSW | Short |
| - Increasing housing opportunities in the Centre, improve the quality of public spaces and make the Centre more vibrant. | Department of Planning and Environment; Wollongong City Council; University of Wollongong | Short |
| - Developing strategies to better link centres, corridors and growth areas to Wollongong Centre. | Department of Planning and Environment; Transport for NSW | Short |

**An explanation of housing types**

**Single dwelling housing**
A single dwelling is a building which contains only one dwelling.

**Multi-dwelling housing**
A multi-dwelling means two or more dwellings (whether attached or detached) on one lot of land, which is accessed at the ground level and includes dual occupancy, townhouses, villas, terraces, and other semi-detached dwellings. This definition differs from the Standard Instrument LEP definition so we can capture dual occupancies as a form of multi-dwelling housing.

**Apartment**
An apartment is a building containing three or more dwellings, but does not include an attached dwelling or multi-dwelling house and include flats, units, apartments, and dwellings attached to a shop or office.
2. Northern Growth Corridor

The northern growth corridor runs from Fairy Meadow to Thirroul. It has two key transport corridors which act as a 'spine' for the area: the South Coast Railway Line and the Princes Highway – both provide relatively high volume transport access to the Wollongong Centre or northwards to Sydney.

The northern growth corridor can play a significant role in transforming the Illawarra by capitalising on its access to global jobs in Sydney and the opportunities for new housing in key centres.

The opportunities for growth in the corridor will come from the development of multi-dwelling housing (townhouses and villas) close to town centres. There are also future development opportunities for higher density apartments around the town centres of Fairy Meadow, Corrimal, Woonona, Bulli and Thirroul.

The proximity of the corridor to Sydney means that there is considerable scope to support commuters and also attract business to the Region relocating from Sydney. Over 21 per cent of the workforce in the northern growth corridor commutes to Sydney for work.7 Aligning transport services and access to these services would enable stronger growth in this corridor.

The rail network and the M1 motorway are a particular focus for the corridor as they play an important role in connecting residents not only to employment, but also to education, recreation and social opportunities.

Planning and development controls already in place provide sufficient realistic capacity to meet projected housing capacity in this corridor. There is a feasible capacity for at least 5,000 new dwellings in the northern growth corridor which represents over 40 per cent of the feasible capacity for multi-dwelling housing in existing urban areas in the Illawarra. This figure can be increased with the examination of certain development controls, for example lot width requirements, to provide additional capacity.
Looking at past development activity shows that multi-dwelling housing is already happening in the corridor – 40 per cent of new multi-dwelling housing and apartment completions over the last five years in the Wollongong LGA have been in the northern growth corridor. The appeal of the area for development comes from a combination of its easy access, proximity to the coast and the lifestyle offered by the revival of its town centres.

Wollongong City Council is looking at the town centres across the LGA to integrate land use and transport planning, improve the quality of the public domain, and encourage more environmentally sustainable development. The draft Corrimal town centre revitalisation strategy has already been exhibited, with other centres in the northern growth corridor to follow. The draft Plan lends support to this process so that Council can plan for public domain improvements, and provide good urban design outcomes to support increases in housing densities in appropriate locations at the other centres in the corridor.

The strategic actions for the transformation of the northern growth corridor are:

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<th>ACTION</th>
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<td>1.2 Develop a Northern Growth Corridor Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
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<tr>
<td>■ Resourcing to undertake town centre planning in key centres in the northern growth corridor.</td>
<td>Department of Planning and Environment</td>
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<tr>
<td>■ Ensuring that the delivery of transport services and access to these services matches the demand for growth within the corridor.</td>
<td>Department of Planning and Environment; Transport for NSW</td>
</tr>
</tbody>
</table>
3. Regional Release Areas

The Illawarra has been able to identify a surplus of land for new residential development through careful planning using the Illawarra Urban Development Program.

There are two major greenfield areas in the Region – West Lake Illawarra and Nowra-Bomaderry which have a combined capacity of 37,500 lots, representing a 30 to 40 year supply of housing. The surplus enables Wollongong, Shellharbour and Shoalhaven Councils to meet their housing targets for greenfield land supply and allows potential for ongoing land supply beyond 2031.

Development of these new release areas can transform the Illawarra by providing an ongoing supply of land for the growth of housing opportunities, maintaining a strong construction sector within the Region.

West Lake Illawarra

The West Lake Illawarra Release Areas incorporate West Dapto, Calderwood and Tallawarra. The majority of land in these areas is already zoned and additional planning proposals are being considered. The area has a capacity of 27,000 lots under the Illawarra Urban Development Program.

It is important to continue the focus on the delivery of new housing by coordinating infrastructure and resolving assessment issues (biodiversity and drainage). Wollongong Council is continuing to develop biodiversity certification strategies to streamline the assessment process in West Dapto. It will do this through the Integrated Delivery Framework, discussed in detail in the Housing section, see p.50.

Development areas like West Dapto have been a long time in the planning and are only now starting to see consistent release of new lots. To maintain progress in these areas will need ongoing infrastructure investment (public and private), as well as planning coordination for these areas.
Acceleration of new lot production in West Dapto could be achieved through the forward funding of key lead in infrastructure, such as water and sewer mains. The Infrastructure Coordination Plan will investigate whether this is achievable under current or revised capital programs.

**Nowra-Bomaderry**

Nowra-Bomaderry release areas were first identified in the 2008 Nowra-Bomaderry Structure Plan and cover areas such as Mundamia, Cabbage Tree Lane and Moss Vale Road precincts. A potential of 10,600 lots was identified in the Nowra-Bomaderry Structure Plan, with six urban release areas (6,375 lots) rezoned as a part of the Shoalhaven LEP.

Development of these precincts is vital to ensuring a supply of new urban land to maintain the growth of Nowra. Without the opportunities provided by these areas Nowra would have little available housing growth and this would increase pressure to develop other more sensitive parts of the coast.

Again, working with Shoalhaven Council to facilitate new housing by focusing on infrastructure coordination and resolving assessment issues (biodiversity and access), is important to progressing the release of these areas. This will be done through the Integrated Delivery Framework, discussed in detail in the Housing section, see p.50.

Acceleration of new lot production requires the resolution of the scale, cost and apportionment of State road access to the release areas. While this does not require the construction of the previously identified western bypass, it will require the urgent resolution of the role of the Princes Highway and alternate means to cross the Shoalhaven River.

### ACTION RESPONSIBILITY TIMING

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<th>ACTION</th>
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<tbody>
<tr>
<td>1.3 Develop a Regional Release Areas Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>■ Continuing with the Integrated Delivery Framework for West Dapto and Nowra-Bomaderry.</td>
<td>Department of Planning and Environment; Wollongong City Council; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>■ Developing an Infrastructure Coordination Plan for West Lake Illawarra.</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Short</td>
</tr>
<tr>
<td>■ Developing an Infrastructure Coordination Plan for Nowra-Bomaderry.</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Short</td>
</tr>
</tbody>
</table>
4. Nowra Centre

Nowra town centre is the business, retail and services hub of the Shoalhaven. As a traditional ‘regional’ centre, Nowra has a number of retail precincts, some commercial and government services catering for the local community and limited tourism functions. The Office of Local Government is located within the Nowra Centre, as well as Shoalhaven City Council and on the northern edge, Shoalhaven District Hospital.

The Nowra Centre can play a transformative role in the southern part of the region by looking at the opportunities that exist to expand its function beyond that of providing local services. Looking for opportunities to create the Nowra Centre as a tourism ‘gateway’ to the NSW South Coast, as well as encouraging new business opportunities tied to the growing defence industry, are important to diversifying the future of this area.

Although the centre is currently split into a number of unconnected precincts, some of which are run down, there are clear opportunities for renewal and revitalisation to consolidate its role as the major centre for the Shoalhaven and the south coast.

Shoalhaven Council is currently implementing a number of planning projects to generate activity and develop Nowra Centre, including the:

- CBD Urban Design Masterplan
- Nowra CBD Height and Floor Space Ratio planning controls
- Nowra CBD Revitalisation Strategy.

There are other areas on the fringe of the centre which could contribute to the growth potential of Nowra including the expansion of the:

- Medical precinct which adjoins the CBD to the West. The Shoalhaven District Memorial Hospital is affiliated with the University of Wollongong and University of NSW and provides training placements for medical, nursing and allied health students, as well as clinical, teaching and research opportunities for medical professionals and academics. Recent growth at the Hospital has made the Illawarra Shoalhaven Local Health District look carefully at how the campus operates and its potential for the future.
The University of Wollongong’s Shoalhaven Campus, which provides the same courses available at the University’s main campus in Wollongong; namely law, humanities, business, social sciences, science, medicine and health. The current campus is located at Mundamia, but can be more closely tied to the commercial activity in the centre.

Shoalhaven River precinct, which adjoins the council offices and medical precinct. Better linkages between this precinct and the centre could emphasise the scenic qualities of the river and allow the centre to take advantage of this important asset.

To boost the economic and cultural potential of this important centre, the draft Plan continues to support Council’s planning processes for the Nowra Centre. Council’s improvements to public domain, urban design outcomes and access issues in and around the centre will help to support its economic growth.

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<th>ACTION</th>
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<tr>
<td>1.4 Develop a Nowra Centre Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
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<tr>
<td>■ Planning for public domain improvements, model urban design outcomes and examine access issues in and around the Centre to support its economic growth.</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Short</td>
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<tr>
<td>■ Developing initiatives to increase public transport usage and better integrate walking and cycling in the Nowra Centre.</td>
<td>Department of Planning and Environment; Shoalhaven City Council; Transport for NSW</td>
<td>Short</td>
</tr>
</tbody>
</table>
5. International Trade Gateway at the Port of Port Kembla

The Port of Port Kembla is the Illawarra’s deep water freight port. The Port connects the Illawarra to the rest of the world through its export of coal and grain, as well as its import of motor vehicles. The Port also continues to support steelmaking operations within the Port Kembla Steelworks.

The Port’s ability to transform the Region is already being seen as it directly and indirectly sustains over 3,500 jobs and contributes $418 million to the regional economy each year. The Port is the only port in NSW that is capable of receiving motor vehicles, and continues to play an important role in the export of coal (13.4 million tonnes in 2012/13) and grain (2.6 million tonnes in 2012/13), and provides opportunities for the carriage of iron ore, and the shipment of steel and steel products.

Originally a bulk products Port, recent investments such as the $170 million inner harbour upgrade, have given Port Kembla the capability to deal with containerised cargoes as well as motor vehicle imports. Approvals have been given to expand the capacity of the Outer Harbour with a $700 million redevelopment already under way. The three-stage expansion will include the construction of new multi-purpose berths and reclamation of 42 hectares of land.

In May 2013, a 99-year lease was signed by the NSW Government and NSW Ports. This lease has given NSW Ports the responsibility to manage and develop the business of the Port of Port Kembla.

Planning and development controls for the Port are governed by State-based controls, reflecting the significance of development in the area. The continued expansion of the Port will require an integrated approach to the use of industrial land in the Illawarra. Already the Port provides potential for new industry to locate in the Region, whether it is a biodiesel plant on reclaimed land, or new logistics and freight handling facilities at Kembla Grange. There are opportunities to build on the freight operation at the Port and create new jobs for the Region.

Greater activity at the Port also has implications for how we handle freight movements. At the current time, carriage of freight to and from the Port relies on existing road and rail corridors such as Mount Ousley and Picton Roads, as well as the South Coast Rail Line. The capacity of these corridors is being closely scrutinised, as is the ability of long term corridors like the potential $667 million Maldon-Dombarton rail line, so that the Port can maintain connections to key markets and resource areas.

The Port of Port Kembla provides an important competitive advantage for the Illawarra because of its international import and export trade markets. Significant investment is being made in the Port, which is shifting focus to car importation.
A number of priorities have been identified for the Port including:
- the availability of zoned land for purchase by industry
- understanding the implications on the supply of industrial land for non-port related uses
- a need to ensure the ongoing safety and reliability of freight and passenger access across the Region as the port and port-related activities grow
- identifying a strategic infrastructure solution to improve the efficiency of the existing freight network and provide more direct access to Sydney. The current investigation into the Maldon-Dombarton rail corridor provides an opportunity to consider an appropriate freight solution to support continued investment in the Port
- identifying social and environmental issues associated with the expansion of the Port, for example, increased road congestion, and air and noise quality impacts.

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<th>ACTION</th>
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<tr>
<td>1.5 Develop an International Trade Gateway Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
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<tr>
<td>- Ensuring Maldon-Dombarton rail corridor is protected in local planning controls.</td>
<td>Wollongong City Council</td>
<td>Long</td>
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<tr>
<td>- Investigating the implications on the supply of industrial land for off-site industrial areas such as Kembla Grange that can support port and non-port related uses.</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Medium</td>
</tr>
</tbody>
</table>
6. Shoalhaven Defence Bases

The Shoalhaven incorporates two significant naval bases – HMAS Albatross which is Australia’s only Naval Air Station (10 kilometres south west of Nowra) and HMAS Creswell (within Jervis Bay Territory). A number of other military facilities are also located in the area which support these operational bases.

The defence sector supports over 2,500 jobs, contributing in excess of $295 million to the Shoalhaven economy. This represents the highest concentration of defence employees within any NSW local government area.

The development of the Albatross Aviation Technology Park, which is located adjacent to HMAS Albatross, has also created a cluster of electronic, IT, logistics, and aviation sectors. Opportunities exist to recognise defence interests in the Region and identify long term plans to support their ongoing role.

Shoalhaven Council will also continue to explore opportunities to attract additional defence contracts by promoting local and regional advantages over interstate rivals. The potential to build an ongoing avionics industry cluster at the Illawarra Regional Airport will also build the Region’s defence industry capacity.

Supporting the defence bases and encouraging defence contractors to locate in the area has the ability to play a transformative role in the southern part of the region, boosting employment, creating a demand for skilled labour and supporting high technology manufacturing and machinery.

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<tr>
<td>1.6 Develop a Shoalhaven Defence Bases Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
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<tr>
<td>■ Ensuring that Local Plans map and protect the air and ground space around defence facilities so that new development does not hinder expansion.</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>■ Protecting the capability of Nowra’s commercial and industrial precincts to continue to grow defence-related industries (including support for infrastructure planning and delivery).</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>■ Recognising the potential opportunities for avionics industry at the Illawarra Regional Airport.</td>
<td>Department of Planning and Environment; Shellharbour City Council</td>
<td>Ongoing</td>
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</table>
Sanctuary Point
JERVIS BAY
CONNECTIONS TO
SOUTH COAST
HMAS
ALBATROSS
ALBATROSS AVIATION
HMAS
CRESWELL
Vincentia
Sussex Inlet
HMAS
ALBATROSS
CONNECTIONS TO
WOLLONGONG
NOWRA
Source: Shoalhaven City Council
DEVELOPING A PROSPEROUS ILLAWARRA

Shaping the Illawarra’s economy has been an ongoing challenge. Our focus, as the population increases to over 450,000 people, will be to create a diversified, resilient and robust economy that can withstand one-off economic shocks and boost employment.

We will need innovative approaches to growing the economy so that we can create at least 32,150 new jobs by 2031. This will not only provide for the growing population, it will also help to address the long term and structural employment problems that exist within pockets of the Region.

We need to acknowledge the challenges for the economy – the trends in the ageing population which has an impact on the number of working age people; the movement of younger people out of the Region; the number of workers commuting to Sydney, and structural changes to the economy.

While in the past our economy was linked to heavy manufacturing, mining and agriculture – we are seeing changes to our economic base. Some of these changes, such as the drift to global jobs in the north (via commuting) are happening naturally. Other changes require greater coordination to ensure that the public and private sectors are working together to complement, rather than frustrate, jobs growth.

The planning system can help job creation and economic development in the Region by removing impediments to development, ensuring there is sufficient land identified for employment, and strengthening key centres in the Region. This will be a strong focus to our plan for the Illawarra. By working with Councils to create vibrant, well-designed and well-serviced centres that provide high quality and interesting cultural and recreational experiences, we will also encourage new investment, and attract people to the Region to work and live.

Unfortunately, just providing a planning response to the growth of the economy will not be enough. Between 2001 and 2011, jobs growth has been slow averaging 1.7 per cent per annum. At the same time, we saw a further decline in jobs at Port Kembla and other heavy manufacturing locations. In order to secure greater economic growth, it is important to understand what will be driving the Illawarra’s economy into the future and what actions we can all take to accelerate those drivers for growth.

Mega trends that impact the Illawarra’s economy

- Work undertaken by Regional Development Australia Illawarra (Transition Illawarra) and Infrastructure NSW (Infrastructure for Illawarra’s economic future) has identified a number of ‘mega trends’ that are expected to impact on the Region’s economic future.
- The digital economy will be a major driver of the Region’s economy due to the growth of broadband networks and broader developments such as telework, online delivery of services, e-commerce, and smart infrastructure.
- The increasing prosperity of Asia may lead to increased demand for housing in the Illawarra associated with increased use of the education facilities in the Region; access to higher quality food, and more visitors.
- Broad structural change is forecast to result in a shift away from manufacturing to a more service-focused economy in the Illawarra.
- The ageing population means that there will be greater demand for a range of health services as well as aged care services.
- The future growth of Sydney presents opportunities for residents in the Illawarra to access a greater number of job opportunities and for the Region to position itself as an alternative place to live. This trend may be intensified as technological change makes it easier to work from home and as transport links between Sydney and the Illawarra improve.
Focus areas for growth

A number of established sectors make a significant contribution to the regional economy and are predicted to continue. They include construction, retail, and public administration, which when combined, accounted for 11 per cent of total employment in 2011. Mining and extractive industries also have a significant economic impact. Coal mining contributed $649 million to the regional economy in 2011, representing 4.2 per cent of local valued added gross regional product.

A significant proportion of the Region’s workforce commutes out of the Region for work. In 2011, over 12 per cent of the Region’s workforce commuted to Sydney for work each day destined for south west Sydney, southern Sydney and Sydney City.

Over 40 per cent of workers leaving the Region are employed in a managerial or professional capacity. The Sydney jobs market provides employment opportunities for workers in the Illawarra which are often in professions not as readily available in the Region. This is a competitive advantage in terms of available skills, access to intellectual capital and high income earners, but it should not remove the impetus for providing local jobs.

General population growth will drive growth in sectors such as construction, retail, and public administration, however, this draft Plan’s focus is on the key growth opportunities presented by the ‘mega trends’. In the Illawarra, the focus areas for economic growth will be the following: tourism, health, disability and aged care, ICT/knowledge services, education, transforming manufacturing, and logistics and port-related activities.

Our strategies to support focus areas for growth in the Illawarra

A collaborative approach, involving industry and government stakeholders, will be needed to realise economic growth in the Region with a focus on key growth areas. Providing a clear economic direction for the Region will be critical, which is why we have identified opportunities for economic growth in the Illawarra that brings together the focus areas for growth and some specific actions for public and private sector interests.
A framework to support economic growth in the Illawarra

The framework to support economic growth in the Illawarra has been developed in consultation with key stakeholders including government agencies, councils and key business and industry groups. It has evolved from an analysis of the economic drivers and focus areas for growth, and the specific actions that are needed to achieve a balanced approach to economic development in the Region. It also builds on the extensive work completed by Regional Development Australia Illawarra’s Transition Illawarra project which identifies key trends and growth sectors for the Illawarra’s economy.

The framework to support economic growth will be used by relevant government agencies to develop a cross-cluster collaborative approach to economic growth in the Illawarra. This will enable government agencies, councils, and other key stakeholders in the Region to have a shared understanding of the Region’s economic opportunities, and how each stakeholder can contribute to growth.

The role of the planning system is to provide the strategic land use framework which ensures that there is sufficient land and office space for employment, that the public domain is enhanced and appropriate to the ageing of the population, and that the delivery of infrastructure is coordinated. There are a number of ways which this draft Plan supports each of the focus areas for growth to make a contribution to economic development in the Illawarra. The specific actions for each focus area are described in more detail over.
Tourism

Tourism is important to the economy given the Region’s proximity to Sydney and Canberra, and its unique Illawarra Escarpment, beaches, national parks and rural lands. Destination NSW estimates that tourism is worth almost $1.3 billion per year to the Illawarra, and brings in over 6.7 million visitors each year, representing over 8 per cent of total visitors to NSW. Total overnight visitors in Shoalhaven alone reached on average over one million per year between 2010 and 2013.

Building tourism infrastructure that both encourages new visitors and enables visitors to better enjoy the Region is important to boosting this important sector.

The construction of Shell Cove Boat Harbour, which is well under way, is an example of an important piece of tourism infrastructure. This will be a significant boating, tourist and lifestyle destination capable of anchoring a marine-based tourism network in the Illawarra and South Coast. It has the potential to be both a key attractor to marine-based tourism as well as a gateway for boating tourists to visit other sites in the Illawarra and on the south coast.

Growing the capacity of the Region to accommodate a marine-based tourism economy will also enable greater utilisation of the networks of small ports and boat harbours that exist in the Illawarra and further down the south coast. These ports can become entry points for a broader range of tourism and other adventure experiences that take advantage of the Region’s great natural environment.

Increasing the number of visitors to the Illawarra and making a significant contribution to jobs growth in the Illawarra can be achieved by expanding ‘visitor assets’ to ensure that there are a range of activities available to convert day trippers into overnight stayers.

How the draft Plan supports tourism

We will partner with key tourism stakeholders including Councils to identify the potential of new visitor assets or activities for the tourism industry. This may include accommodation, reception venues, and leisure and recreation facilities with a focus on recreation, eco-tourism, agri-tourism and culturally appropriate Aboriginal tourism.

Health, Disability and Aged Care

As a result of the Region’s ageing population (one in every four people will be over the age of 65 in 2031), aged care and health related services will continue to be a significant contributor to local employment. The Illawarra can leverage off the expertise of the University of Wollongong, the Dementia Training Study Centre and the presence of two of Australia’s largest community-based aged care providers, and encourage training and employment opportunities in residential care, allied health and community sectors.

The health, disability and aged care sector in the Region is supported by three major hospitals (Wollongong, Shellharbour and Shoalhaven), six community health services (Bulli, Coledale, Berry, Milton-Ulladulla, Kiama and Port Kembla), four private hospitals (Figtree, Thirroul, Nowra and Shellharbour) and more than 100 general practitioners, private allied health providers, and not-for-profit organisations.

Wollongong Hospital is a region-wide provider of tertiary clinical services, research and teaching and is supported by Shellharbour and Shoalhaven hospitals, which provide a comprehensive range of secondary acute services to the southern Illawarra communities.

The Illawarra/Shoalhaven Local Health District is supporting potential growth in this sector by a number of investments, including the $134 million expansion of Wollongong Public Hospital, a $10.6 million sub-acute mental health unit at Shoalhaven Hospital and $56 million of integrated aged care projects at Kiama and Bulli hospitals, partly funded through the Restart NSW Illawarra Infrastructure Fund. Private investment is also contributing to growth in this sector such as the new $120 million Wollongong Private Hospital and $41 million of investment in aged care facilities, also partly funded through Restart Illawarra.

How the draft Plan supports the health, disability and aged care sector

We will improve the public domain of our centres, for example, by offering wide ranging facilities that are safe and accessible for the aged. We will deliver a range of housing options to accommodate an ageing population. We will also work to remove impediments to development, for example, continuing to allow aged care facilities where hospitals and residential flats are located.
**ICT/Knowledge Services**

Technological change is proving to be a key focus for the Region as it attempts to diversify its economy for the future. While the Region’s Information Communications and Technology (ICT) sector is forecast to remain small, the ICT and knowledge services sector in a broader sense has the potential to provide significant advances in health, education, telework, e-commerce, business services, financial services and information and communications technology.

Key enablers of the Illawarra’s ICT/knowledge services sector include:

- **ICT workforce** – the University of Wollongong is the largest single university supplier of ICT graduates in NSW*.
- **High speed broadband** – the Illawarra is well placed to capitalise on opportunities in ICT/knowledge services due to its priority rollout of the National Broadband Network. This is reflected in Regional Development Australia’s Illawarra Digital Strategy.
- **iAccelerate** – an initiative developed by the University to help individuals with start-up businesses by providing support to develop and deliver technology-focussed businesses into the Illawarra economy.
- **Telework** – the Region’s proximity to Sydney, combined with advancements in technology could allow a greater number of employees in the Illawarra to work for businesses located in Sydney or interstate. It could also mean there are fewer people commuting out of the Region. Providing smart work hubs could make a contribution to these outcomes.
- **Data Centre** – the recent approval to construct a $27 million Tier 3 data centre in the Illawarra is likely to attract jobs and related business to the region.

**University and Education**

The Illawarra has a strong education presence and it is expected to experience greater growth, due to the appeal of the Region’s vocational and tertiary education offerings. This is led by The University of Wollongong and its Innovation Campus, which is designed to bridge the gap between pure and applied research.

The University has nine campuses across the Illawarra, Sydney and internationally, attracting over 31,000 students in 2012 – including almost 7,000 overseas students.* TAFE Illawarra also has a strong presence with 14 campuses across the Illawarra, Southern Highlands, and South Coast, with an average enrolment of over 34,000 students each year.*

The University is investing in a number of enterprises that have the ability to bring broader commercial opportunities to the Region, including:

- **the Sustainable Buildings Research Centre (SBRC) located at the University of Wollongong’s Innovation Campus, which focuses on reducing the carbon footprint of existing buildings and developing new technologies to make future developments more environmentally sustainable. The building has a 6 Star Green Design rating and incorporates a state-of-the-art laboratory and in-situ testing facilities**
- **the Early Start Research Institute which seeks to improve educational outcomes, particularly for young people and/or people from disadvantaged backgrounds**
- **the SMART Infrastructure Facility – a world class leader and educator in ‘integrated’ infrastructure planning and management, providing research and development nationally and overseas. For example, the University is predicting that smart energy grids have the potential to drive efficiency gains in the electricity network, while intelligent transportation systems technologies can improve the safety, efficiency and competitiveness of transport systems.**

**How the draft Plan supports ICT/knowledge services**

To support ICT/knowledge services we will ensure that there is an ongoing capacity for office space to support a growing knowledge services sector and implement the actions detailed in the Action Plan for the Wollongong Centre (see p.18) to develop the Region as an attractive location for business.

**How the draft Plan supports the University and Education**

We will support the University and education sector by implementing the actions detailed in the Action Plan for the Wollongong Centre (see p.18). The Action Plan will identify the growth trends and potential of the University, the importance of coordinating infrastructure and access arrangements to the University, and identify student accommodation opportunities.
Transforming Manufacturing

While the manufacturing sector, particularly traditional manufacturing is undergoing significant transition, the level of manufacturing output is actually expected to rise over time due to advanced manufacturing opportunities within the sector, including 3D printing and computer controlled machine tools. The Illawarra is well placed to take advantage of this by leveraging-off the innovation and research expertise of the University, access to the international trade gateway at Port Kembla, an increasing strong defence industry cluster growing in the Shoalhaven and a growing light aeronautics industry cluster, located at the Illawarra Regional Airport.

How the draft Plan supports manufacturing

We will support the manufacturing sector by providing a well located and serviced supply of industrial land and protect existing important employment areas.

Logistics and Port-Related Industries

Growth in logistics-related industries is predicted for the Region as the Port of Port Kembla expands into containerised trade and other exports.

The growth of the port is already creating demand for industries such as shipping, warehousing, distribution, and support services to cater for the expanding trade into vehicle importation. Improvements to the port and related infrastructure can increase competition, remove barriers to trade and improve links to domestic and global value chains.

How the draft Plan supports logistics and port related industries

We will support the logistics and port-related sector by providing a well-located and serviced supply of industrial land. This is discussed in more detail on page 26.

Actions to support the growth of the Port will be identified in the Action Plan for the Port (see p.26) and include investigating the opportunities for off-site industrial areas such as Kembla Grange to support port and port-related uses.
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<tr>
<th>ACTION</th>
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<tr>
<td>2.1</td>
<td>Incorporate the framework to support economic growth into a broader economic development plan for the Illawarra</td>
<td>Department of Premier and Cabinet; NSW Trade and Investment</td>
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<tr>
<td>2.2</td>
<td>Identify the potential for new visitor assets or activities for the tourism industry</td>
<td>Department of Planning and Environment; Destination Wollongong; Tourism Shellharbour; Kiama Tourism; Shoalhaven Tourism; Councils</td>
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<tr>
<td>2.3</td>
<td>Ensure planning principles for aged housing are incorporated into local planning</td>
<td>Department of Planning and Environment; Councils</td>
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<tr>
<td>2.4</td>
<td>Ensure an ongoing capacity for office space through local planning controls</td>
<td>Department of Planning and Environment; Councils</td>
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<tr>
<td>2.5</td>
<td>Support the growth of The University of Wollongong by coordinating infrastructure and access arrangements and identifying student housing opportunities</td>
<td>Department of Planning and Environment; Transport for NSW; Wollongong City Council</td>
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<tr>
<td>2.6</td>
<td>Ensure an ongoing supply of industrial lands through Councils’ Local Plans</td>
<td>Department of Planning and Environment; Councils</td>
</tr>
<tr>
<td>2.7</td>
<td>Investigate options to increase the supply of off-port industrial land that can support the ongoing development of the Port of Port Kembla</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
</tr>
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</table>
Strengthen the Region’s retail centres

Centres concentrate retailing, commercial and business functions, and the delivery of Government services in one place. Public investment in transport (rail and bus interchanges, high trafficable roads) and in the public spaces (public domain) and cultural activities makes them interesting and safe places for the community.

The Illawarra’s centres have developed over time so that higher order functions are located in the larger centres (e.g. Wollongong, Shellharbour and Nowra), while suburban centres have maintained a stronger local/district retail functions (for example, Corrimal, Warilla and Ulladulla). Understanding how these centres operate, how they relate to each other and how they function within a hierarchy or network is important to ensure appropriate competition and to support existing public infrastructure investment. (A description of the role and function of the Illawarra’s centres is contained in Appendix A.)

Growing the number of jobs and improving access is important to strengthen the Region’s retail centres. Ensuring that the centres remain attractive locations for retail and office space, and business, service, civic and cultural uses, complemented in some instances by higher density housing, is an important part of this draft Plan.

Our analysis of the Illawarra’s centres shows that there is capacity for an additional 606,000 square metres of retail activity. This compares to the 475,000 square metres that is projected to meet the demands of the growing population.

Our analysis also shows that the capacity of our centres to grow their retailing activity is appropriate to the needs of the population. In other words, there is no particular centre that requires additional retail capacity through new zonings or changes to planning and development controls.

Of course, the capacity for retail growth and change needs to be carefully monitored into the future as trends such as online retailing take effect. This will allow us to ensure that impediments to growth are identified and where possible addressed.
From a commercial and business perspective, it is important to ensure that the different roles and functions of two of the Region’s larger centres – Wollongong Commercial Core and Shellharbour City Centre – as well as the Innovation Campus are clearly understood.

The University of Wollongong’s Innovation Campus is a specialist centre, providing a regional hub for knowledge-based industries. In addition, there is some commercial office space located at the site. To ensure that the Innovation Campus does not jeopardise the role and function of the Wollongong Commercial Core, the definition of the Innovation Campus as a specialist centre, will ensure that planning controls focus on land use for research and development enterprises, supported by accommodation, a hotel and conference centre, and shops and services.

Wollongong Centre remains the Illawarra’s only regional city, with major tertiary education and health facilities, strong public transport, and a key role in providing higher order business, civic, recreation, community and entertainment uses. Shellharbour City Centre’s role has been increasing in recent years, aided by a growing population and an expanded range of retail facilities and services.

Flexible design should be encouraged when planning for the expansion or redevelopment of centres to ensure they adapt to changing retail, commercial and social trends, including advances in information technology, and specifically, the impacts of e-retailing.

Ensuring that planning controls do not rigidly control how retail or commercial floor space is constructed will allow buildings to be designed with flexible floor plates that can accommodate innovation and shifts in the market.

The Illawarra’s network of centres (see Appendix A) will be used by Councils and other authorities to consider where, and to what level investments should be made in each centre. This ensures that the existing and planned investment in centres, particularly public domain and infrastructure is maximised, while enabling appropriate growth and change in smaller centres so they can compete in a changing retail environment.

Protecting the capability of centres to provide employment and service opportunities is also an important role of our proposed network. Any proposal to increase or decrease the development potential of a centre, or the impacts of out-of-centre retailing, will be assessed against the network. Any new proposals for retailing, particularly outside an existing centre, should demonstrate that new jobs will be created and that jobs in existing centres will not be lost.

Centre opportunities will, wherever possible, be strengthened by better aligning transport services to growth in the centre and by limiting out-of-centre commercial and retail premises. We can do this by providing adequate capacity within the centre, and promoting mixed use developments that can incorporate a number of land uses.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
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<tbody>
<tr>
<td>2.8</td>
<td>Ensure Council-based mechanisms or controls will support the network of centres, including resisting inappropriate out-of-centre retailing</td>
<td>Department of Planning and Environment; Councils</td>
</tr>
</tbody>
</table>
Providing well-located and serviced supplies of industrial land

Providing vacant land for industrial use gives the Illawarra an opportunity to expand its industrial activity and to attract new industries to the Region. In order to understand whether we needed to zone more land for industrial development we commissioned an audit of industrial lands.

The audit revealed that there are 3,110 hectares of land zoned for industrial development. Of the total, 604 hectares are vacant, with the majority located in either the Wollongong or Shoalhaven council areas. The most common lot size of industrial land in the Region is between 1,000 and 5,000 square metres. Smaller lot sizes are the most common throughout the Region, with 85 per cent of all industrial parcels less than 5,000 square metres in size.

Industrial lands make an important contribution to the Illawarra economy, by providing opportunities for a transforming manufacturing sector, and a growing research and development focus. With access to a deep water port, road and rail connections, and a skilled workforce, the Region is a highly sought after location for industrial activities. Based on current employment land trends, the available supply should be sufficient to meet long term demands.

Having a good supply of industrial land depends on a number of factors including the servicing of those lands; their location, size, and constraints such as flooding, bushfire, and biodiversity. From our audit we know that there are a number of physical constraints which affect the Illawarra’s industrial land supply including bushfire (60 per cent of vacant land) and flooding (35 per cent). While these are not considered an absolute constraint, they add additional complexity in bringing industrial land to the market and create the risk of a long term shortfall in employment land.

In addition to physical constraints, the servicing of water, sewer and electricity infrastructure also presents challenges that can impact on the take-up of land. Fifty-eight per cent of vacant industrial land in the Region is serviced by water; 33 per cent is serviced by sewer; and 78 per cent is serviced by electricity. Kembla Grange, in particular, has been highlighted as an area that would benefit from additional infrastructure to support development.

The continuing importance of the Port is driving demand from port-related industries for large industrial land sites and existing warehousing facilities. This demand is set to grow over time, especially as the outer harbour precinct development plans are realised and the Port opens up to containerised trade.

To make as much land available as possible we will work closely with Councils and servicing agencies to ensure there is a sufficient supply of serviced industrial land in the Region. We will also monitor the supply of industrial lands through the Employment Lands Development Program which is an important tool for ensuring a sustainable supply of industrial land.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9</td>
<td>Monitor the supply of industrial lands through the Employment Lands Development Program</td>
<td>Department of Planning and Environment</td>
</tr>
<tr>
<td>2.10</td>
<td>Collaborate with servicing agencies to support the market take-up of industrial land</td>
<td>Department of Planning and Environment; Servicing agencies; Councils</td>
</tr>
</tbody>
</table>
Investigating the economic potential of land owned by Local Aboriginal Land Councils

OCHRE (Opportunity, Choice, Healing, Responsibility, Empowerment) is the NSW Government’s plan for Aboriginal affairs. It focuses on revitalising and promoting Aboriginal languages and culture; creating opportunities; increasing the Aboriginal community’s capacity; providing choice; and empowering Aboriginal people to exercise that choice, as well as giving them the tools to take responsibility for their own future.

The development of OCHRE underpins key recommendations made by the Ministerial Taskforce on Aboriginal Affairs which highlights the importance of genuine partnerships with the Aboriginal community in order to foster wealth and strengthen economic independence.

While the majority of OCHRE actions are outside the planning system, there is an opportunity to look at the land holdings of Aboriginal Land Councils to see how they can be best planned, managed and developed for the benefit of the local Aboriginal Community. This will allow Aboriginal people to gain real economic benefit from their land and provide greater opportunities for economic independence.

Working together, Aboriginal Affairs NSW and Planning and Environment, will identify a pilot project with one of the Local Aboriginal Land Councils (LALCs) to identify their land holdings and to map the level of constraints for each site. This should create a valuable source of information which can be used to develop real and practical solutions to the potential commercial use of the land, for example, for housing and employment opportunities for Aboriginal people. It has potential to provide economic returns to the LALCs which can be invested in assistance programs in the Region.

The overall objective of this project is to encourage greater economic self-determination and reduce the disadvantage experienced by Indigenous people.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
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</thead>
<tbody>
<tr>
<td>2.11</td>
<td>Conduct a pilot project for the strategic assessment of land held by a Local Aboriginal Land Council</td>
<td>Department of Planning and Environment; Aboriginal Affairs NSW</td>
</tr>
</tbody>
</table>
Essential to any plan for the growth of the Illawarra is the supply of appropriate housing. Unlike many other regions and places, the Illawarra can take advantage of both its planned new release areas, and the potential for renewal in its existing areas, to meet housing demands.

Generally speaking, the right planning framework is already in place to meet this housing demand, although it is important to continue to monitor housing activity and to take action to encourage the construction of appropriate types of housing in the right places.

We will need at least 45,000 new homes between now and 2031 to cater for an additional 65,000 residents in the Region. With one in four residents aged 65 years and older and more one and two person households the location of new housing and the mix of available housing will be an important consideration as we plan for growth.

Housing capacities established through our evidence base (Urban Feasibility Model, Illawarra Urban Development Program and Shoalhaven Growth Management Strategy) indicates a sufficient supply of feasible housing across a range of locations and dwelling types. While this gives us confidence that the Region’s current policy settings are generally correct and following market expectations, there is more work to be done to ensure this potential translates to new housing construction in the Region.

Our draft Plan is very focussed on:

- identifying opportunities for housing capacity across a range of locations and dwelling types
- delivering the right mix of housing with an emphasis on resolving impediments in land use controls and assessment processes
- coordinating the infrastructure and public domain improvements required to support housing growth
- monitoring housing supply to ensure regional and local housing targets are met
- ensuring new housing developments achieve good urban design outcomes.

**Options for the growth of the Illawarra**

Any plan to shape the future growth of the Illawarra has to accommodate the physical landscape of the Region which limits the options for expansion of growth. This includes the Illawarra escarpment and its important water catchment areas to the west, Lake Illawarra and coastal areas to the east.

There are potential growth areas available in the Shoalhaven, but only if carefully managed.

To arrive at a preferred growth option we asked the question – where should new housing be located to meet both community and market demands? We answered this question by gathering and analysing a range of data and evidence and by considering the feedback we received from the community and stakeholders.

In assessing the options to shape the housing growth of the Region we have used a new and powerful tool called the Urban Feasibility Model (UFM). This model enables us to understand both the theoretical capacity for development of an area under existing planning and development controls, as well as the amount of development that is feasible, given current market conditions.

Using the UFM to assess housing options has given us the ability to see where development would realistically occur and whether the review of planning and development controls (such as increasing heights and density controls or zoning new areas for development) would be effective.

We also analysed the infrastructure needs and considered planning merit and market preferences in assessing the options for growth.
By building the evidence base and testing options we have been able to identify the best way of delivering development to support growth, which we refer to as the ‘balanced growth’ approach.

**Preferred option – Balanced Growth**

This approach to accommodating housing growth generally reflects the Region’s current pattern of housing activity and supports the ongoing growth of the Illawarra’s centres, and takes advantage of existing infrastructure investments. This option is also in line with historical and forecast market preferences for housing.

The balanced approach to delivering growth would see a virtually equal contribution of housing opportunities delivered in new release areas and existing urban areas. This is quite different to other large regional areas where the supply of housing is often predominantly from new release areas in fringe locations. It also reflects the geographically constrained nature of the Illawarra where new release areas have needed to be carefully planned to protect them from other uses or fragmentation.

Under the balanced approach to growth it is possible to substantially utilise existing identified greenfield growth areas and the current planning and development controls in existing areas, to supply the expected 45,000 new homes needed by 2031. This option also retains surplus capacity in both greenfield and existing urban areas which will allow the region to respond to any shifts in the housing market that may occur in the future.

**Other options**

Several other growth options for housing delivery were considered and assessed as part of the process to determine a final preferred growth option, but were discounted for the reasons outlined below.

**Focus housing in existing urban areas option**

This option canvassed the implications if 70 per cent of new housing was provided through multi-dwelling housing and apartments in existing urban areas. The UFM tells us that even if we increased height, floor space and other controls across existing urban areas that there is not a strong enough demand for higher density housing to encourage the market under current conditions to build these types of dwellings.

Key implications would include:

- redistribution of growth from the south of the region to Wollongong as a result of the limited feasible capacity of multi-dwelling housing and apartments in these areas
- the need to encourage more housing in existing areas by slowing down development in already identified new release areas by potentially withholding infrastructure and servicing investments and/or halting planned rezonings
- the potential redirection of growth to other regions as home buyers seeking new release style housing look for opportunities elsewhere in response to limited locally available lots.

**Majority greenfield areas**

This option tested the implications if 70 per cent of housing was supplied in greenfield areas. Key implications would include:

- significant underutilisation of existing infrastructure investments in established areas
- underutilisation of the available capacity for new dwellings around well-serviced centres, for example, the capacity of the northern growth corridor or Kiama town centre may not be utilised with consequential implications for services and ongoing transport networks
- the need to consider the down zoning of existing areas to redirect housing demand towards greenfield areas
- the need to identify additional release areas beyond those currently included in the Illawarra Urban Development Program. This would require detailed strategic assessment of potential sites, taking into account the value of the land for other uses including agriculture, resources, Aboriginal heritage and biodiversity. This is also not supported by the community feedback to the Discussion Paper.
Delivering a mix of appropriate housing to meet demand

Under the balanced growth option, growth in the Region will continue to be encouraged in both existing urban areas and greenfield areas in a way that delivers a surplus capacity for a range of housing types across the Region with a focus on key centres.

Housing demand

The target of 45,000 dwellings in this draft Plan has been developed taking into account projected population growth, housing demand and mix to meet the needs of households, as well as factoring in allowances for tourism opportunities and a supply surplus.

The population of the region is forecast to grow by 65,000 people over the period to 2031 and the composition of the population is also set to change over that time. By 2031, one in four people (25 per cent) in the Illawarra will be aged over 65 years – almost 115,000 people. There will also be a change in the structure of households with significant increases in the number of lone person (32 per cent) and couples only (33 per cent) households.

In addition to projected growth, the demand for rented holiday homes and units is also a factor influencing the demand for housing, particularly in the southern part of the Region. In 2011, over a quarter of all dwellings in the Shoalhaven were identified as unoccupied, showing the strong demand for holiday homes in the area.

Factoring a reasonable housing surplus into our understanding of housing demand will ensure that our housing policy is more robust against unforeseen constraints to development, including, for example, delays in the supply of housing or uneven rates of development.

Councils will be expected to plan for a range of housing targets to suit the projected growth, changing demographics such as an ageing population, and market demand particular to each.

Housing targets by LGA

<table>
<thead>
<tr>
<th>LGA</th>
<th>SINGLE DWELLING HOUSING</th>
<th>MULTI DWELLING HOUSING</th>
<th>APARTMENTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wollongong</td>
<td>6,850</td>
<td>8,650</td>
<td>2,950</td>
<td>18,450</td>
</tr>
<tr>
<td>Shellharbour</td>
<td>8,000</td>
<td>3,150</td>
<td>100</td>
<td>11,250</td>
</tr>
<tr>
<td>Kiama</td>
<td>1,900</td>
<td>700</td>
<td>1,000</td>
<td>3,600</td>
</tr>
<tr>
<td>Shoalhaven</td>
<td>8,200</td>
<td>3,500</td>
<td>0</td>
<td>11,700</td>
</tr>
<tr>
<td>TOTAL</td>
<td>24,950</td>
<td>16,000</td>
<td>4,050</td>
<td>45,000</td>
</tr>
</tbody>
</table>
Housing supply

Under the balanced approach to housing, the key centres within the northern growth corridor and the Wollongong City Centre would accommodate the majority of new multi-dwelling housing and apartments in the Region.

Greenfield development under the balanced scenario is focussed on the major regional release areas of West Lake Illawarra and Nowra-Bomaderry, although there are a number of other established and smaller release area that add to the diversity of supply in the region (see table on page 48).

The table below shows the feasible contribution of each of the greenfield and existing urban area locations to meeting the 45,000 dwelling target.

<table>
<thead>
<tr>
<th>EXISTING URBAN AREA LOCATION</th>
<th>DWELLINGS</th>
<th>GREENFIELD LOCATION</th>
<th>DWELLINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern growth corridor</td>
<td>5,000</td>
<td>West Lake Illawarra</td>
<td>27,000</td>
</tr>
<tr>
<td>Wollongong City Centre</td>
<td>5,850</td>
<td>Nowra-Bomaderry</td>
<td>10,600</td>
</tr>
<tr>
<td>Oak Flats/Shellharbour City Centre</td>
<td>880</td>
<td>Shell Cove – Boat Harbour</td>
<td>1,050</td>
</tr>
<tr>
<td>Kiama Town Centre</td>
<td>760</td>
<td>Greenfield – dispersed</td>
<td>3,700</td>
</tr>
<tr>
<td>Existing urban areas – dispersed 1</td>
<td>11,700</td>
<td>Total</td>
<td>42,350</td>
</tr>
<tr>
<td>Total</td>
<td>24,190</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Includes feasible capacity for multi-dwellings around Wollongong, and single dwellings in Shoalhaven.

2 See table on page 48 for a list of dispersed greenfield locations.

As there is sufficient capacity in both greenfield and existing urban areas to accommodate housing targets on a regional level, this draft Plan does not identify additional greenfield land beyond that already strategically identified under the Illawarra Urban Development Program and the Shoalhaven Growth Management Strategy.

While the location of new urban development has been identified in the draft Plan we will still consider development outside of these boundaries if a compelling case can be demonstrated as to the merit of the rezoning proposal and there is no cost to the Government. An example of this is the current consideration of planning proposals to rezone land at Helensburgh.
Existing Urban Areas

There is a significant zoned capacity for new housing in existing urban areas across the Region under current planning controls – almost 215,000 potential new dwellings. It is important however, that regional housing policy reflects what the market is able to deliver (i.e. market feasibility), and infrastructure and servicing constraints.

The Urban Feasibility Model (UFM), tells us that the realistic and feasible capacity of the existing urban areas in the Illawarra is a much smaller 24,100 dwellings, with Wollongong accounting for 62 per cent, followed by Shoalhaven, Shellharbour and Kiama. Half of this feasible capacity is in multi-dwelling housing (12,200), followed by apartments (6,270) and single dwelling housing (5,700).

As part of our Urban Feasibility Modelling, we have tested whether changes to planning controls would make more development more feasible. The evidence shows that there are some changes to planning controls that will increase the supply of feasible development in certain areas, for example, lot width controls in Wollongong, and heights and density controls in Kiama. Changes to planning controls in most other areas are unlikely to provide more feasibility given the mismatch between what people are prepared to pay for that form of housing and the costs of development, for example, an increase in allowable heights in the northern growth corridor.

Under our draft Plan, a number of existing urban areas have been identified to fulfil the Region’s housing demand, due to their proximity to transport and key services, and market feasibility. These areas include centres within the northern growth corridor (for multi-dwelling housing supply), and Wollongong City Centre (for the supply of apartments).

There is also some feasible capacity for multi-dwelling housing in those areas outside of the Wollongong City Centre and northern growth corridor within the Wollongong Council area such as Helensburgh, West Wollongong, Mangerton and Keiraville. In the southern part of the Region, there is some feasible capacity for multi-dwelling housing in Oak Flats and Shellharbour City Centre, as well as multi-dwelling housing and apartments in Kiama town centre.

It is important that we ensure there is a surplus capacity of feasible housing in existing urban areas so that we can withstand any shifts in market conditions. Using the UFM, we have looked at how we could increase the feasible capacity of our existing urban areas by reviewing a number of planning controls (such as increasing heights and density controls) in the northern growth corridor, Wollongong City Centre, Oak Flats, Shellharbour City Centre, Kiama and Gerringong. We will continue to work with councils to review planning controls in existing urban areas to provide for a surplus feasible capacity for a range of housing types.

There are also significant opportunities for urban renewal in other parts of the Region that may not currently be feasible, including in and around centres such as Warilla, Dapto, Nowra, Vincentia, Albion Park, Ulladulla and Unanderra. These areas have good access to transport and services and over time they may become increasingly attractive to the market, and offer long term capacity for housing.

As these areas are important future infill locations should there be changes to market demands, our planning controls should preserve the capacity for higher density housing and greater housing diversity in these areas, to maximise the use of available infrastructure and access to transport and services.

Greenfield Areas

Land identified under the Illawarra Urban Development Program and the Shoalhaven Growth Management Plan has capacity for 42,300 greenfield lots, with 52 per cent (22,330) currently zoned for development.

There are two major greenfield areas in the Region – West Lake Illawarra (West Dapto, Calderwood and Tallawarra) and Nowra-Bomaderry. These areas have an identified capacity of 37,500 lots, representing a 30 to 40 year supply of housing, which will enable Wollongong, Shellharbour and Shoalhaven Councils to meet their housing targets for greenfield land supply, beyond 2031.
West Lake Illawarra Release Areas  
Capacity for 21,560 single dwellings and 5,440 multi dwellings

Kiama Town Centre  
Feasible capacity for 760 apartments

Northern growth corridor  
Feasible capacity for 5,000 multi dwellings

Oak Flats/Shellharbour City  
Feasible capacity for 880 multi dwellings

Shell Cove Boat Harbour  
Potential for 210 single dwellings, 420 multi dwellings and 420 apartments

1. Existing urban area capacity also exists in pockets through the Region - this includes capacity for multi dwellings in small precincts close to Wollongong as well as single dwellings in Shoalhaven.

2. Greenfield capacity also exists in smaller release areas at places such as Bulli, Figtree, Tullimbar, South Gerringong, West Culburra, Sussex Inlet and Manyana.

Legend

- Existing urban area capacity
- Greenfield capacity
- Princes Motorway
- Major Roads
- Regional City
- Major Regional Centre
- Major Town

Other opportunities within existing urban areas. Feasible capacity for 11,700 additional dwellings
**EXISTING URBAN AREA CAPACITY**

5,000  Northern Growth Corridor  
5,850  Wollongong City Centre  
880  Oak Flats/Shellharbour  
760  Kiama Town Centre  
11,700  Remaining\(^1\)

**GREENFIELD CAPACITY**

27,000  West Lake Illawarra Release Area  
1,050  Shell Cove Boat Harbour  
10,600  Nowra-Bomaderry Release Area  
3,700  Remaining\(^2\)

**Total Infill: 24,190**

**Total Greenfield: 42,350**

1. Existing urban area capacity also exists in pockets through the Region - this includes capacity for multi dwellings in small precincts close to Wollongong as well as single dwellings in Shoalhaven.

2. Greenfield capacity also exists in smaller release areas at places such as Bulli, Figtree, Tullimbar, South Gerringong, West Culburra, Sussex Inlet and Manyana.
There are also a number of other greenfield release areas which are expected to continue to make an important contribution to housing diversity throughout the Region including those locations shown in the table below:

<table>
<thead>
<tr>
<th>WOLLONGONG</th>
<th>SHELLHARBOUR</th>
<th>KIAMA</th>
<th>SHOALHAVEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandon Point</td>
<td>Shell Cove</td>
<td>Spring Creek</td>
<td>Manyana</td>
</tr>
<tr>
<td>Bulli</td>
<td>Albion Park South</td>
<td>Jamberoo</td>
<td>Dolphin Point</td>
</tr>
<tr>
<td>Haywards Bay</td>
<td>Tullimbar</td>
<td>South Kiama</td>
<td>Vincentia</td>
</tr>
<tr>
<td>Figtree</td>
<td>Dunmore</td>
<td>South Gerringong</td>
<td>Sussex Inlet</td>
</tr>
<tr>
<td></td>
<td>Flinders</td>
<td></td>
<td>West Culburra</td>
</tr>
</tbody>
</table>

Kiama is likely to have a more limited role in regional housing supply. The Kiama and Gerringong town centres will provide urban infill opportunities, however, there is a lack of greenfield capacity in Kiama, which may constrain a mix of housing types to cater for first home buyers, young families, retirees and to support people who want to age in their homes.

Kiama Council has identified a number of potential greenfield areas in its Urban Strategy that can assist in meeting demand, provided they can be appropriately considered through the rezoning process. We will work with Kiama Council to review the potential of these areas, and to identify an appropriate boundary for the southern expansion of Gerringong, noting the importance of maintaining Gerringong and Gerroa as separate urban areas.

**Affordability**

Housing stress occurs when lower income households are paying more than 30 per cent of their income on rent or mortgage costs. Based on 2011 ABS data, 27 per cent of all households in the Region are experiencing housing stress, while 35 per cent of households on moderate, low and very low incomes are experiencing housing stress. The Region also has a lower proportion of private rental accommodation, contributing to a low vacancy rate of 1.6 percent.

Strong demand for housing for rental and purchase has created a challenge for lower income residents, students, single person households and seniors. Contributing to the challenge is a lack of one, two and three bedroom homes due to an increase in the number of larger four bedroom homes.

The draft Plan’s principal response to this issue is to ensure a sufficient capacity of housing supply across the Region and to provide a wide variety of housing types and sizes so undue pressure is not placed on markets that would drive up housing prices. Councils will also be encouraged to plan for a range of housing types (including small lot housing) in appropriate locations with access to transport, services, infrastructure and jobs.
In a broader sense we are continuing to look at housing affordability issues to see if there are statewide solutions. There are a number of potential approaches that can help deal with the issue of housing affordability across the State, including:

- planning incentives, such as increases in density to provide affordable housing
- affordable housing contributions to fund the provision of new housing by community housing organisations
- encouraging new generation boarding houses and secondary dwellings such as granny flats
- considering planning and development controls to facilitate affordable housing development by local community housing organisations.

The availability and affordability of suitable accommodation to house the students attending the University of Wollongong and local TAFEs has been an ongoing issue. We will work with key stakeholders to examine options for the Education Precinct and the Wollongong Centre more broadly, to see whether options exist for higher density apartment living with good access to the University.

The Region comprises a number of public housing estates which, while providing important accommodation options for our most vulnerable residents, are not well matched to the needs of the current occupants, who would be better served by smaller homes and multi-dwelling housing in easier to get to locations. Much of the current housing stock in the Region’s public housing estates is also ageing which is increasing the cost of maintenance.

The NSW Land and Housing Corporation is currently undertaking a program to review public housing estates across NSW. When the Illawarra is reviewed as a part of this program, the draft Plan will be used as a key input, providing an understanding of housing supply, demand and affordability issues relevant to the Region.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Ensure a surplus capacity for housing in existing urban areas to accommodate a range of housing types throughout the Region by requiring Councils to regularly review their strategies for housing and demonstrate the achievement of housing targets</td>
<td>Department of Planning and Environment; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>3.2</td>
<td>Explore the potential to shift planning controls in Kiama and Gerringong town centres to generate more feasible housing supply in existing urban areas</td>
<td>Department of Planning and Environment; Kiama Municipal Council</td>
</tr>
<tr>
<td>3.3</td>
<td>Review the potential of the greenfield release areas identified in the Kiama Urban Strategy, and identify an appropriate boundary for the southern expansion of Gerringong</td>
<td>Department of Planning and Environment; Kiama Municipal Council</td>
</tr>
</tbody>
</table>
Delivering housing in new release areas

New release areas in the Region are expected to account for 57 percent (or 25,650) of the 45,000 new homes required to 2031 — this equates to approximately 1,300 new lots per year.

While a significant zoned capacity of greenfield land is available in the Region, the availability of zoned land on its own has not translated into the delivery of new lots and homes in recent years. Land release areas identified under the Illawarra Urban Development Program have under-delivered relative to lot production benchmarks over the last 10 years. In a positive sign, the number of greenfield dwellings has increased for the past two years, the first time in 10 years there has been two consecutive year increases. This shows the increasing confidence of the development sector about the ability to increase lot production, projecting an average annual lot production in excess of 1,000 over the next five years.

We have already identified the most significant release areas as assets that can transform the Region. Our focus for the new release areas is the delivery of housing and is supported through the action plans for Regional Release Areas (West Lake Illawarra and Nowra-Bomaderry see p. 21–22).

Even though there is an upswing in lot production, the need to coordinate the delivery of new housing and infrastructure in greenfield areas remains a priority. The focus should be on maintaining strong and sustained increases in housing construction to overcome the low levels of production over the last decade. To achieve this, we need to concentrate on servicing lots and making them ‘development ready’ to respond to market demand. We also need to resolve assessment issues such as biodiversity and heritage to ensure that projects are not delayed through the approval process. We have provided a forum to address these matters through the Integrated Delivery Framework.

Integrated Delivery Framework

The Integrated Delivery Framework represents a new governance mechanism to clearly identify responsibility for actions. It uses a project management approach to identify, plan, cost and deliver infrastructure. This framework has been implemented for the West Dapto and Nowra-Bomaderry release areas which has enabled us to:

- resolve access arrangements to the release areas in consultation with Transport for NSW
- maintain an ongoing discussion on State and local development levies
- coordinate infrastructure planning
- oversee an Integrated Assessment Group to ensure there is a consistent approach to State and local planning requirements for new release areas in the Region.

The Integrated Delivery Framework for West Lake Illawarra and Nowra-Bomaderry will continue to be an important action for us as we facilitate the delivery of new housing in new release areas. Successes have included enabling Wollongong Council to secure $22 million for the funding of Fowlers Road Bridge, prioritising biodiversity certification investigations for West Dapto and resolving the planning future of the Western Bypass at Nowra through planning controls in the Shoalhaven Local Environmental Plan.
Constantly monitoring how we are performing in terms of housing delivery, and being prepared to adjust planning and development controls as necessary, will be an important part of our plan for the Illawarra.

The Illawarra Urban Development Program (IUDP) is our key tool for managing land and housing supply in the Illawarra. It accompanies the Metropolitan Development Program (MDP), which manages land and housing supply for the Sydney Metropolitan Region. The IUDP monitors the planning, servicing and development of new urban areas in Wollongong, Shellharbour and Kiama, as well as the provision of housing in existing urban areas.

The IUDP will continue to coordinate the release of land and redevelopment of existing urban areas and will be extended to include urban areas in Shoalhaven. It will be used to monitor each council area’s capacity to meet the housing targets in this draft Plan. An annual update report on the program is prepared which can be found at: www.strategy.planning.nsw.gov.au/illawarra/iudp

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4</td>
<td>Continue implementing the Integrated Delivery Framework for West Dapto and Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Wollongong City Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>3.5</td>
<td>Continue to monitor land and housing supply through the Illawarra Urban Development Program, and incorporate the Shoalhaven LGA</td>
<td>Department of Planning and Environment; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
</tbody>
</table>

**Delivering well-designed and vibrant neighbourhoods**

Good urban design is critical to the health, safety and wellbeing of the community. The design of our centres should be attractive and welcoming to people of all ages – both pedestrians and cyclists – and provide public spaces for the community to meet, socialise, work and relax.

Well-designed centres play an important role in supporting healthy lifestyles and active living which contributes to individual physical and mental health, but also to social cohesion and community wellbeing. We need to provide opportunities for people to be physically active where people work, and in our neighbourhoods. To do this, we need to consider the design and location of recreation facilities, parks and public buildings, and how to connect people to these areas by public transport.

Neighbourhoods should create safe and socially inclusive places that promote social, cultural and recreational opportunities. They should also meet the different needs of the population – children, young people, families, people with disabilities, and the ageing community.

Revitalisation of our neighbourhoods should promote community development and wellbeing. They should be easy to get to and safe, compact and therefore easy to walk around, and water and energy efficient.

The draft Plan’s focus is on opportunities for new housing development in key centres, as these locations are within walking distance to jobs, transport, services, cultural facilities and amenities.
Neighbourhood planning principles

Good urban design outcomes are critical for all forms of housing in new release areas and existing urban areas. Using the Neighbourhood Planning Principles (below) will ensure our planning for new suburbs and revitalised centres promote access to jobs, a welcoming public domain, a range of land uses and transport choice. Councils will use the Neighbourhood Planning Principles when preparing their Local Plans and Development Control Plans.

With a significant ageing population, housing should be located close to active and interesting public spaces, and it should be well-designed and adaptable.

Adaptable housing has a flexible floor plan that enables simple modifications to suit the changing needs of residents. Adaptable housing allows people to age in their own homes as their level of mobility changes.

The revitalisation of centres should be sensitive to and complement the character and lifestyle of the centres. This is particularly important in the Shoalhaven, which has 49 towns and villages which contribute to the character of the Region. Issues that need to be considered include neighbourhood character, community integration, protecting and enhancing open space and recreation opportunities, and the efficient use of existing and planned infrastructure.

Neighbourhood Planning Principles (NPP)

The NPP provide overarching principles that may apply to new developments in both greenfield and in existing urban areas. The application of the principles may apply more strongly depending on the context of the proposed development.

- Public transport networks that link frequent buses into the rail system
- A range of land uses to provide the right mix of houses, jobs, open space, recreational space and green space
- Easy access to major town centres with a full range of shops, recreational facilities and services along with smaller village centres and neighbourhood shops
- Jobs available locally and regionally, reducing the demand for transport services
- Streets and suburbs planned so that residents can walk to shops for their daily needs
- A wide range of housing choices to provide for different needs and different incomes. Traditional houses on individual blocks will be available along with smaller, lower maintenance homes, units and terraces for older people and young singles or couples
- Housing diversity can be facilitated by providing a number of purpose-designed smaller lots and dwellings
- New housing developments are to provide a proportion of adaptable housing to further increase housing choice across the Region to cater for the ever changing needs of its residents
- Conservation lands in and around the development sites, to help protect biodiversity and provide open space for recreation
- Minimise the negative impacts on the natural water cycle and protect the health of aquatic systems, for example, through Water Sensitive Urban Design principles.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6</td>
<td>Implement neighbourhood planning principles in Local Plans, Development Control Plans, and other council based mechanisms</td>
<td>Department of Planning and Environment, Councils</td>
</tr>
</tbody>
</table>
Growth cannot be sustained without supporting infrastructure. It is essential for community wellbeing and to support economic growth.

Our draft Plan for the Illawarra acknowledges that infrastructure planning is essential to match growth with services and facilities, and also to act as a trigger for investment in strategic infrastructure which can help to strengthen the economy.

Our focus is to enable the draft Illawarra Regional Growth and Infrastructure Plan to assist the delivery of infrastructure in the Illawarra, in the right place and at the right time to match community needs.

To identify infrastructure priorities for the Illawarra, we’ve investigated:

- current infrastructure plans and strategies, such as the NSW Long Term Transport Master Plan, Illawarra Regional Transport Plan and Sydney Water’s wastewater servicing strategy
- the demands for new infrastructure arising from growth in greenfield release areas and how new investments can be coordinated to match and support growth
- the capacity of infrastructure in existing areas to accommodate additional development
- the potential to support economic growth sectors through strategic infrastructure investments.

Understanding the infrastructure capacities and opportunities in the Region has enabled us to align regional economic and housing outcomes to existing and planned infrastructure investments. The draft Plan proposes an annual growth infrastructure planning process to ensure the allocation of State funds through the budget process continues to align with priorities and opportunities to support regional growth. Opportunities for private sector delivery of infrastructure will also continue to be investigated to encourage innovation in the provision of growth infrastructure.

**Current infrastructure commitments**

There are already a number of infrastructure projects significant to the development and growth of the Illawarra that are committed or under way:

- upgrades of the Princes Highway to provide two lanes in each direction from Waterfall to Jervis Bay Road (includes multiple major roads projects)
- safety upgrade of the Picton Road/M1 intersection and slow vehicle climbing lanes on Mount Ousley Road that will also improve freight capacity
- Port Kembla outer harbour development – this will add to the stock of land available for port related development and provide two new berths
- water and wastewater infrastructure to support the development of the initial stages of the West Lake Illawarra release areas
- upgrades to Wollongong and Shoalhaven Hospitals, including the upgrades to the Emergency services, and the new Wollongong Hospital car park
- Shell Cove Boat Harbour (private investment) to enable the construction of a new marina and accompanying tourist precinct.

The State's infrastructure commitments in the Illawarra prioritise assets that boost productivity growth such as transport projects that alleviate congestion, and social infrastructure that improves the quality of services in the Region. The construction phase of these investments also provides a capital expenditure boost that contributes to the regional economy.

We are also in the planning phase for a number of infrastructure planning projects that have the potential to transform the Region including the M1 Yallah to Oak Flats extension (Albion Park Rail Bypass), the Maldon Dombarton rail line, the third river crossing of the Shoalhaven, and Shellharbour Hospital upgrade.
Supporting housing growth through infrastructure

In developing our plans for future housing for the Illawarra we have looked carefully at the opportunities and the capacities of our infrastructure networks. Wherever possible, we have looked to use existing capacities in infrastructure (for example, water/sewer, roads and health services), when identifying future growth areas. We have also been able to identify those places and infrastructure networks where some augmentation or upgrades will be necessary to accommodate future growth.

Understanding the infrastructure implications of new growth depends on whether that growth is occurring through infill or redevelopment in existing areas, or is the creation of entirely new suburbs in our greenfield areas. Typically, the type of infrastructure that is most affected by the location of growth is the enabling infrastructure of pipes, wires, roads and in some cases schools, while the sorts of infrastructure that are most affected by region-wide growth include ‘tertiary’ style health care (teaching hospitals) and universities.

As our plans for housing in the Illawarra use both greenfield and existing urban areas, we have looked at the infrastructure implications of growth based on these different areas.

Existing urban areas

Health

The Illawarra Shoalhaven Local Health District has completed its strategic plan for the Region which highlights the role of Wollongong Hospital as a referral and teaching hospital. The development of Wollongong Hospital as a principal referral hospital is a significant factor in achieving self-sufficiency in secondary services and selected tertiary services. Under the Local Health District’s Strategic Plan, the Illawarra will essentially have a ‘stratified’ approach to health services.

Wollongong Hospital will continue its role as the district-wide tertiary referral hospital for acute inpatient services, as well as provide acute hub level services for the Northern Illawarra, with Bulli and Coledale Hospitals identified for specialised services. This reflects the significant investment that has been made in the Hospital and its campus over the last 15 years. The operation and potential of this health precinct will be considered in greater depth as part of the action plan for the Wollongong Centre (see p.18).

Shellharbour Hospital will be developed as an acute hub for the Southern Illawarra community. This will require Shellharbour Hospital to develop the level of services provided, expanding its capacity, level of operation and capital footprint, thereby enabling it to become a major metropolitan facility. The expansion of Shellharbour Hospital also enables Wollongong Hospital to fulfil its role as a regional hospital, with tertiary referral and teaching responsibilities.

Shoalhaven District Memorial Hospital will continue its role as an acute hub in the Shoalhaven; a role that will be enhanced by the expansion of Cancer Care services.

There is a very strong alignment between the Local Health District’s Strategic Plan and this draft Plan. The focus of high level services at Wollongong Hospital enables the greater connection between the University, the Hospital and the surrounding medical/health services precinct to be strengthened. Identifying the need to grow Shellharbour Hospital’s role and prominence also connects to the changing ‘centre of gravity’ of the Illawarra, as new development occurs under this draft Plan in West Dapto and Calderwood, all of which are in the Shellharbour Hospital Catchment.

There are a number of health related infrastructure works in the Illawarra that are currently under construction, funded or planned and include:
<table>
<thead>
<tr>
<th>PROJECT</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illawarra Elective Surgical Services Centre at Wollongong Hospital</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Parking upgrade at Wollongong Hospital</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Emergency Department expansion at Wollongong Hospital</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded</td>
</tr>
<tr>
<td>Sub-acute Mental Health Unit at Shoalhaven Hospital</td>
<td>1-5 years</td>
<td>Illawarra Shoalhaven Local Health District</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Bulli Hospital Upgrade</td>
<td>1-5 years</td>
<td>Illawarra Shoalhaven Local Health District</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Wollongong Private Hospital upgrade</td>
<td>1-5 years</td>
<td>Figtree Private Hospital</td>
<td>Potential future project</td>
</tr>
<tr>
<td>Health and Aged Care services at Kanahooka, Kiama, and Shell Cove</td>
<td>1-10 years</td>
<td>Restart Illawarra Infrastructure Fund</td>
<td>Funded</td>
</tr>
</tbody>
</table>

**Education**

Although the Department of Education and Communities is working towards a consistent planning approach, it is not yet ready with a strategic plan for the Illawarra. We do, however, have a good understanding of this sector’s current operation and can influence its forward planning to ensure alignment.

Changes in the TAFE sector mean that the Illawarra Institute needs to carefully consider how its numerous campuses can best respond to the pressures of more vocational-based activity. TAFE facilities in the Region are ageing and will require renewal to meet the expectations of students and staff for modern teaching spaces, with inbuilt technological capabilities. Information Communications Technology (ICT) infrastructure will be required on all campuses to provide sufficient breadth of coverage and increased capacity to service the projected increased use (traffic) of technology-enabled learning.

The University of Wollongong is the Illawarra’s only university, with almost 31,000 students enrolled in 2012. The University invests in infrastructure at a higher rate than average NSW universities, most recently with the iAccelerate project as well as Kooloobong precinct student housing. Infrastructure challenges for the University are focused around transport requirements, including access from the M1, public transport, parking and walking/cycling.

Primary and high schools in the public system generally have capacity to accommodate growth in existing urban areas. Schools within the northern growth corridor will need to be monitored to ensure there is capacity in existing schools to accommodate growth. Schools within the Wollongong City Centre may require some capacity upgrades. The regular reporting on housing activity that will form part of the monitoring and implementation of this draft Plan will enable the Department of Education and Communities to respond to any change in demand.
There are a number of education related infrastructure works in the Illawarra that are currently funded or under construction and include:

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illawarra Industry Training College</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded</td>
</tr>
<tr>
<td>Kooloobong Student Village Stage 2</td>
<td>1-5 years</td>
<td>University submission to Discussion Paper</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Early Start Facility</td>
<td>1-5 years</td>
<td>University submission to Discussion Paper</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>(highly specialised teaching and research space)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Transport**

The Illawarra Regional Transport Plan (IRTP) looks at the planned growth of the Region, considers the impact of urban growth in the priority new release areas and accommodates employment growth and an increasing tourism market. The IRTP is committed to better connecting Illawarra residents to jobs, study and town centres, including reducing the travel time between Wollongong and Sydney. The IRTP also acknowledges the benefits to the Region from better management of freight associated with the increased role of Port Kembla.

Some of the particular transport challenges facing the Illawarra as it grows and develops include:

- a growing demand for freight on both road and rail networks, including expansion and growth of Port Kembla
- improved train travel times are needed for trips to and from the Sydney Metropolitan Area
- a heavy reliance on private car travel
- catering for transport demand during peak holiday travel periods and supporting domestic and international tourism opportunities
- pressure to complete road construction in the Region to provide additional capacity and links to cater for additional demand and growth
- catering for an ageing population and transport disadvantaged by providing access to healthcare facilities and services

- ongoing investment in bus priority infrastructure to facilitate fast and reliable bus services
- ongoing investment in the regional cycle network to connect people to major centres and to influence mode shifts towards active transport.

Our draft Plan for the Illawarra, with our strong focus on centres and corridor growth, continued roll-out of regional land release program, and key employment precincts such as the Port and University, supports the regional initiatives outlined in the Illawarra Regional Transport Plan.

There are significant opportunities for the two plans (land use and transport) to continue to integrate during their implementation phases. Working together on initiatives such as infrastructure planning and delivery; the management of access to new release areas; strengthening the role of public transport in connecting local communities to Wollongong City Centre; and enhancing rail passenger services, will ensure that land use and transport continue to be integrated in the Illawarra.

Improvements in the management and location of freight and logistics facilities associated with growth in the Port of Port Kembla will also be a key issue for our draft Plan for the Illawarra. The specific steps to address this will be identified in the action plan for the Port (see p.25).
There are a number of transport related infrastructure works in the Illawarra that are currently under construction, funded or planned which aim to address these issues and include:

<table>
<thead>
<tr>
<th>TRANSPORT MODE</th>
<th>PROJECT OR PROGRAM</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>Foxground and Berry Bypass, Toolijooa Road to South Berry</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded</td>
</tr>
<tr>
<td></td>
<td>Gerringong Upgrade , Mount Pleasant to Toolijooa Road</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded</td>
</tr>
<tr>
<td></td>
<td>Princes Motorway, Interchange at base of Mt Ousley</td>
<td>5-10 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded for planning</td>
</tr>
<tr>
<td></td>
<td>Princes Motorway (Mount Ousley Road) Climbing Lanes</td>
<td>5-10 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded for planning</td>
</tr>
<tr>
<td></td>
<td>Nowra Bridge over Shoalhaven River</td>
<td>5-10 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded for planning</td>
</tr>
<tr>
<td></td>
<td>Albion Park Rail Bypass</td>
<td>5-10 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded for planning</td>
</tr>
<tr>
<td></td>
<td>Termeil Creek Realignment</td>
<td>5-10 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded for planning</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Bulli Pass, Princes Highway</td>
<td>5-10 years</td>
<td>NSW Freight and Ports Strategy</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Princes Motorway, West Wollongong</td>
<td>5-10 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Picton Road</td>
<td>5-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Illawarra Highway</td>
<td>5-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Princes Highway to South Coast</td>
<td>5-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Transport Corridor Upgrades, Road Safety, Community Transport Services</td>
<td>1-5 years, 5-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td>Freight Rail</td>
<td>Pre-construction planning for Maldon-Dombarton Rail Line</td>
<td>10-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Upgrade of Moss Vale – Unanderra Rail Line</td>
<td>5-20 years</td>
<td>State Infrastructure Strategy</td>
<td>Potential future project</td>
</tr>
<tr>
<td>Passenger Rail</td>
<td>New Train Station at Shell Cove (formerly Flinders) and train station improvements</td>
<td>1-5 years, 5-20 years</td>
<td>Long Term Transport Master Plan</td>
<td>Under construction</td>
</tr>
<tr>
<td>Ports</td>
<td>Port Kembla Outer Harbour Redevelopment</td>
<td>1-20 years</td>
<td>NSW Freight and Ports Strategy</td>
<td>Potential future project</td>
</tr>
<tr>
<td></td>
<td>Replacement Pilot Vessel</td>
<td>1-5 years</td>
<td>NSW Budget 2014-15</td>
<td>Funded</td>
</tr>
</tbody>
</table>
Utilities

Drinking water is available for the Region and is not a risk for servicing regional growth. The majority of the Region’s water supply is sourced from dams that form part of Sydney’s water supply system which includes Tallowa Dam to the south. The Metropolitan Water Plan (2010) ensures there is sufficient water in drought and for long term growth for the greater Sydney region, including the Illawarra. The Plan is currently under review and will take into consideration the growth projections for the Illawarra region.

There is sufficient capability in the water infrastructure network and sufficient capacity in the existing wastewater treatment plants to accommodate regional growth. The Illawarra, and in particular the northern Illawarra, takes advantage of its integrated sewerage system which pumps effluent to the Wollongong sewage treatment plant, where recycled water is produced for use at Bluescope Steel. Because of this integrated system, there are also no specific water or wastewater limitations to support planned growth in existing urban areas.

The Shoalhaven also takes advantage of recycled water technologies at its ‘Recycled Effluent Management’ plant near Culburra. This system allows treated water to be ‘spray irrigated’ on the dairy fields of the Shoalhaven River flats – drought proofing this important industry. More broadly, Shoalhaven Water carefully manages the capacity and operation of its numerous treatment plants to accommodate the increases in demand during holiday periods.

There are a number of areas within the Region where the electricity network is operating at close to capacity, which may require augmentation of the sub-transmission network in the future to support future growth. Assets in the south of the Region are currently being upgraded to respond to increased demand during holiday periods.

Overall, there is capability in the electricity sector to support the Region’s growth in the short to medium term. However, in the longer term, a potential shortfall in the capability of the transmission network has been identified. Investigations are already under way to consider options for increasing transmission capability including a new connection between the transmission network and the distribution network south of Nowra. We will continue to work with TransGrid and Endeavour Energy to refine options for a new connection, which could include identifying a preferred transmission corridor. This would be reflected in our strategic plans to highlight the right timing for investment in the upgrade.
There are a number of utility related infrastructure works in the Illawarra that are currently under construction or funded, and include:

<table>
<thead>
<tr>
<th>INFRASTRUCTURE ITEM</th>
<th>PROJECT OR PROGRAM</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater Treatment Plants</td>
<td>Northern Shoalhaven Reclaimed Water Management Scheme</td>
<td>1-5 years</td>
<td>Shoalhaven Council</td>
<td>Funded</td>
</tr>
<tr>
<td>Wastewater Infrastructure</td>
<td>Kangaroo Valley Sewerage Scheme</td>
<td>1-5 years</td>
<td>Shoalhaven Council</td>
<td>Funded</td>
</tr>
<tr>
<td>Water and Sewerage Trunk Mains</td>
<td>Shellharbour Trunk System Project Shellharbour</td>
<td>1-5 years</td>
<td>Sydney Water</td>
<td>Funded</td>
</tr>
<tr>
<td>Electricity</td>
<td>Port Kembla Zone Substation Upgrade</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Electricity</td>
<td>Russell Vale Zone Substation Upgrade</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Electricity</td>
<td>Bulli Zone Substation Upgrade</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Electricity</td>
<td>Tomerong Zone Substation Upgrade</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>Electricity</td>
<td>Culburra Zone Substation Upgrade</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
</tbody>
</table>

**Waste**

Waste management is the responsibility of local government, however, a collaborative approach to planning and managing waste services can bring regional benefits. The Southern Councils Group’s *draft Regional Waste Avoidance and Resource Strategy* provides a framework for Councils to work together on managing cross-regional issues (littering, illegal dumping), securing waste and recovery contracts and the joint establishing of waste infrastructure, where appropriate.

While each of the Region’s Councils currently have capacity or arrangements in place to manage their waste, arrangements will need to be secured, including the implementation of waste minimisation strategies, to ensure long term waste requirements can be met.

**New release areas**

West Lake Illawarra, incorporating West Dapto, Tallawarra and Calderwood, is the priority focus for greenfield release in the northern part of the Illawarra. Nearly half of the overall capacity of the release areas has already been rezoned and planning has commenced for a substantial part of the remaining land.

Nowra-Bomaderry represents the priority greenfield release precinct in the southern part of the Region. Approximately two-thirds (6,375 lots) of the overall capacity of the area was recently rezoned as part of the Shoalhaven LEP 2014.
Both of these areas are expected to have a timeframe for development that extends beyond 2031. We will use the Illawarra Urban Development Program to monitor the rate and take-up of development in order to understand when decisions on new infrastructure will be needed.

We have been working closely with Wollongong, Shellharbour and Shoalhaven Councils to facilitate the planning and delivery of new housing in West Lake Illawarra and Nowra-Bomaderry release areas. This has included work to resolve access issues and to understand what new infrastructure is needed for the release areas.

The final Plan will resolve the timeframe, potential funding sources (including development contributions) and potential for contestable provision by the private sector.

**Transport**

Strategic traffic modelling has been undertaken to understand the infrastructure implications associated with regional growth, and more specifically to support the development of West Lake Illawarra release areas. This has identified the need for the following State road projects:

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1—Yallah to Oak Flats upgrade incorporating: Albion Park Interchange Yallah Interchange Tallawarra on/off ramps.</td>
<td>1-10</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Funded for planning</td>
</tr>
<tr>
<td>Emerson Road on/off ramps</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
<tr>
<td>Fowlers Road on/off ramp upgrades</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
<tr>
<td>Illawarra Highway Upgrade through the Albion Park urban area</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
<tr>
<td>Northcliffe Drive Overpass</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
<tr>
<td>Masters Road Flyover</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
<tr>
<td>M1—additional lanes at various sections from Tallawarra to Mount Keira Road</td>
<td>10+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra)</td>
<td>Planning &amp; business case required</td>
</tr>
</tbody>
</table>
The Illawarra Regional Transport Plan also identifies the importance of integrating existing public transport services into the services for new release areas. This will need a program of works and service delivery strategies to enable the early uptake of bus services, the connection of local services to regional services (which could be either bus or train) and the operation of community transport. The Regional Transport Plan also identifies opportunities to encourage greater walking and cycling activity through appropriate urban design and infrastructure (bike paths, walking trails).

The focus for access infrastructure to support the new release areas in Nowra-Bomaderry will be on connecting to, and maintaining levels of service on the Princes Highway. Traffic modelling is being undertaken by Roads and Maritime Services and Shoalhaven City Council to identify pressure points on the State road network that may be the focus for future infrastructure upgrades.

**Education**

In planning for our new release areas in the Illawarra, we have been working with the Department of Education and Communities (DEC) to understand schools requirements.

There are a number of education related infrastructure works for release areas in the Illawarra that are being planned and include:

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>TIMING (YEARS)</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Lake Illawarra Urban Release Area</td>
<td>5–20+</td>
<td>Draft Special Infrastructure Contributions – Illawarra (West Lake Illawarra), and DEC submission to Discussion Paper</td>
<td>DEC are monitoring housing construction, enrolment growth and property opportunities</td>
</tr>
<tr>
<td>■ Eight potential new primary schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Three potential new high schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nowra-Bomaderry Urban Release Area</td>
<td>5–20+</td>
<td>DP&amp;E and DEC</td>
<td>DEC are monitoring housing construction, enrolment growth and property opportunities</td>
</tr>
<tr>
<td>■ Two potential new primary schools</td>
<td></td>
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</tr>
</tbody>
</table>
Work is now focusing on more detailed planning for priority school infrastructure to service initial development precincts. DEC will continue to monitor the rate and uptake of development in new release areas to ensure that it can respond to changes. Continued access to the data and forecasts from the Illawarra Urban Development Program will help DEC stay on top of changing trends, and to identify the trigger points to commission new schools.

Utilities

Water, wastewater and electricity infrastructure will be required to support the staged roll-out of multiple development fronts in the Region’s release areas.

Sydney Water’s concept plan and project application for Water and Wastewater Servicing of the West Dapto Urban Release Area and Adjacent Growth Areas was approved on 14 June 2013. It plans for infrastructure capacity to accommodate 30,000 homes and 500 hectares of non-residential development from the West Dapto, Calderwood and Tallawarra release areas.

Sydney Water has identified and included the servicing of the zoned areas in West Lake Illawarra in its capital requirements strategy. Construction is already under way to deliver these services and Sydney Water is also engaged with a number of developers who are leading the provision and construction of connecting mains.

Shoalhaven Water has developed a servicing strategy to support the Nowra-Bomaderry release areas which has identified that upgrades to Nowra and Bomaderry Sewerage Treatment Plants will be required. This is currently in concept design phase.

Three new zone sub-stations will be needed to service West Lake Illawarra release areas. Endeavour Energy has secured a site for a new zone sub-station in stage-one of the West Dapto urban release area and is monitoring the implications of growth on electricity infrastructure, before determining the timing for its delivery. The timing for the other zone sub-stations will depend on the timing and nature of development, but are not expected to be required in the next 10 years.

With continued access to the data and forecasts from the Illawarra Urban Development Program, Endeavour Energy will continue to monitor the rate and uptake of development in new release areas to ensure that it can respond to changes.

There are a number of utility related infrastructure works in the Illawarra that are currently under construction, funded or planned and include:

<table>
<thead>
<tr>
<th>INFRASTRUCTURE ITEM</th>
<th>PROJECT OR PROGRAM</th>
<th>TIMING</th>
<th>SOURCE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water and Sewerage Trunk Mains</td>
<td>West Dapto Urban Release Project Wollongong</td>
<td>1-5 years</td>
<td>Sydney Water</td>
<td>Funded</td>
</tr>
<tr>
<td>Water and Sewerage Trunk Mains</td>
<td>Calderwood Trunk System Project Shellharbour</td>
<td>1-5 years</td>
<td>Sydney Water</td>
<td>Funded</td>
</tr>
<tr>
<td>Electricity</td>
<td>Dapto Substation – ongoing maintenance</td>
<td>1-5 years</td>
<td>TransGrid</td>
<td>Potential future project</td>
</tr>
<tr>
<td>Electricity</td>
<td>West Nowra Bomaderry 33kV Electricity Line project</td>
<td>1-5 years</td>
<td>Endeavour Energy</td>
<td>Currently under construction</td>
</tr>
</tbody>
</table>
**Delivery**

Having identified the overall infrastructure requirements to support growth of the new release areas, the task for state agencies and other key stakeholders is now to focus on coordinating new infrastructure to maximise development outcomes in the short to medium term.

Infrastructure Coordination Plans for West Lake Illawarra and Nowra-Bomaderry will provide transparency and certainty around infrastructure planning and delivery to support development. They will include timing/thresholds for project delivery; explain the relationship between plans; clarify who is responsible for delivery; and explore precinct acceleration opportunities.

The Plans will also provide a consolidated source of information to support the recovery of part of the cost of regional and State roads where appropriate and will provide the policy base to support the development of detailed servicing plans by State Agencies and utility providers.

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<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>4.1</td>
<td>Develop an Infrastructure Coordination Plan for West Lake Illawarra</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
</tr>
<tr>
<td>4.2</td>
<td>Develop an Infrastructure Coordination Plan for Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
</tr>
<tr>
<td>4.3</td>
<td>Each Council should ensure it has access to long term capacity to manage waste associated with projected growth</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
</tbody>
</table>
Supporting economic growth through strategic infrastructure investments

Our draft Plan for the Illawarra recognises that the Region has the potential to grow by using its available land supply and capitalising on its transitioning economy. To drive this growth it is necessary to consider whether there are particular pieces of infrastructure that we can, either on our own, or by working with other Governments or sectors, invest in to transform the Region.

Infrastructure NSW (INSW) plays a key role in supporting the State’s infrastructure planning, funding and delivery process by providing independent advice on investment priorities. *Infrastructure for Illawarra’s Economic Future (2014)* has been prepared for INSW to inform our discussions on the infrastructure priorities of the Region.

*Infrastructure for Illawarra’s Economic Future* has examined how the Illawarra’s economy could function if key strategic investments in infrastructure were made. We have used this document to understand the external and internal factors shaping the Region’s economy and how well they would respond to particular types of investment. Although we have not looked to analyse and assess particular projects, the INSW document has established the economic themes for which infrastructure can be prioritised:
- support economic activity and improves amenity
- enable the movement of people, goods and information
- service the needs of households
- support the quality of life of individuals and resilience of communities
- connect individuals, businesses and communities with each other and the rest of the world.

How the INSW strategic infrastructure priorities could be used to identify projects to support growth in the Region are discussed over.
Infrastructure for Illawarra’s economic future

Connections to other places
The Illawarra’s proximity to Sydney provides good opportunities for infrastructure-led growth. Inter-regional transport infrastructure that could support growth includes:
- improvements to rail travel times between Sydney and Wollongong
- extension of the M1 Princes Motorway from Waterfall to Alexandria
- completion of the Maldon to Dombarton freight line (in addition to improved rail freight connections between Port Kembla and the Southern Rail Line through an upgraded Unanderra to Moss Vale line)
- duplication of Picton Road in the long term.

Collectively, these transport investments have the potential to inject $4.4 billion into the economy over the period to 2050 and increase employment by 12,732 full-time equivalent positions. There would also be significant economic and employment benefits to Sydney from these investments.

Connections within the Illawarra
Improving connections between employment centres and housing growth precincts can increase capacity, improve traffic flows, reduce traffic times and improve road safety. These improvements extend to road upgrades (such as the M1 Yallah to Oak Flats extension), improvements to rail services and public transport investments, which all support general regional growth and economic growth.
Information and Communications Technology

Growth in ICT/knowledge services will be underpinned by the high number of graduates from the University of Wollongong in ICT. Investment in superfast broadband networks and 4G mobile networks would allow a range of developments to occur including telework, online delivery of services, e-commerce and smart infrastructure.

Health

Continued investment in the health sector has the potential to drive productivity improvements and growth in the Region as well as respond to its rapidly ageing population. The role of Wollongong Hospital as a tertiary treatment and teaching facility is critical to support future residents and to consolidate the health sector as an economic opportunity. Investing in Wollongong Hospital as well as other regional health infrastructure, such as the redevelopment of Shellharbour Hospital into a major metropolitan hospital will improve services to the community and secure tertiary and economic outcomes for the sector.

Recreation and cultural facilities

Investing in convention facilities, accommodation services and attractions to support tourism can increase visitor nights and longer stays in the Region. Supporting investment in regional arts and recreation can also support tourism, as well as contribute to the lifestyle advantages of the Region, which in turn support investment.

In addition to the above, investment in the regional TAFE, University and regional skills development will benefit all economic sectors.

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<tbody>
<tr>
<td>4.4</td>
<td>Continue to build a case for investment in strategic infrastructure in the Region</td>
<td>Department of Planning and Environment; Infrastructure NSW; Department of Premier and Cabinet; NSW Trade and Investment; NSW Health; Department of Education and Training; University of Wollongong.</td>
</tr>
</tbody>
</table>
The Illawarra Region forms part of the water catchment that provides drinking water to almost 60 per cent of the State’s population.

The Region has agricultural and natural resources that are economically and environmentally important to the Region and to Sydney, but their proximity has the potential to generate land use conflict. Our draft Plan for the Illawarra acknowledges the importance of these resources in delivering economic and environmental benefits to the Region.

Our focus for the appropriate management of the Region’s agricultural and natural resources is on explaining how the draft Plan can provide opportunities for development, prevent land use conflicts and protect important natural assets.

As our draft Plan does not propose any further expansion of the Region’s urban footprint, beyond those areas already strategically identified and endorsed through the Illawarra Urban Development Program and Shoalhaven Growth Management Strategy, there will be limited additional land use conflicts arising from this draft Plan. However, we do have an opportunity to use this draft Plan to focus on better managing existing land use conflicts to ensure the ongoing extraction of valuable mineral resources, and the productivity of important agricultural lands.

Identifying regionally important agricultural lands

The southern part of the Region is home to a range of economically viable rural enterprises including dairy, organic produce, beef, cut flowers and fruit. These agricultural industries also support a range of other value adding industries such as milk and cheese factories, abattoirs and wineries (some of which operate in the Illawarra or in adjacent regions).

Agricultural land also contributes to the attractive landscape of the Region that is enjoyed by both residents and tourists.

Supporting the productivity of agricultural lands is a complex issue that touches on a range of potential policy areas such as consistent land use policy, development assessment processes, and pollution control requirements that are all best managed through a statewide approach.

Our main response to support agriculture in the Region is a spatial one – to support agricultural productivity by identifying regionally important agricultural lands, and ensuring that these areas have appropriate zones or controls applied in Local Plans.

In January 2014, the NSW Government released the Biophysical Strategic Agricultural Land (BSAL) maps for the State which identifies land with high quality soils and water resources capable of sustaining high levels of productivity. While the BSAL mapping identifies agricultural land of significance to the State, there is an opportunity to map agricultural lands that are capable of making an important contribution at a regional scale.

The NSW Department of Primary Industries recently undertook a pilot mapping project to identify the agricultural lands needed for food, fibre and bio-energy production in NSW. An important outcome of the Regional Growth and Infrastructure Plan will be to extend this mapping to the Illawarra.

We have developed the following principles to guide strategic mapping, and reflect both the pilot project undertaken by NSW Department of Primary Industries and the principles contained in the previous rural planning policies. These principles will help to manage these important lands by addressing land use conflict issues (including rural residential uses). They also support opportunities to sustain and grow agricultural activities and provide for activities that complement the agriculture sector such as processing and agri-tourism.
Principles for identifying important agricultural land

1. PROMOTE AND PROTECT SUSTAINABLE ECONOMIC ACTIVITIES

The promotion and protection of sustainable economic activities is achieved through the identification of the economic, social and aesthetic values associated with rural land, with consideration given to:

- industry types – Support key regional industries, including emerging and potential industries associated with food, fibre and bio-energy production as they can provide long term means of employment, raw agricultural product and fresh safe secure food
- land requirements – While land with the best combination of soil, climate, topography and water for agricultural production is a limited resource in New South Wales, different agriculture industries have varying land requirements which should be recognised
- value adding opportunities
- infrastructure and access requirements.

2. MAINTAIN, PROTECT AND ENHANCE NATURAL ASSETS

Important natural resources should be identified and protected for their environmental, economic and social value. In particular, assets such as soils, vegetation, fauna and water should be identified and protected to ensure the viability of agricultural industries and sustainable food production.

3. MANAGE SETTLEMENT AND HOUSING

Settlement and housing in rural areas should be identified and managed with consideration given to:

- identifying lands suitable for rural residential development which does not interfere with the agricultural industry, biodiversity or landscape aesthetics
- clearly identifying and strategically locating urban growth boundaries and rural residential zones in order to reduce land use conflict, land speculation and pressure on infrastructure and services
- rural character – provides the scenic context for tourism and the lifestyle of residents.

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<tr>
<th>ACTION</th>
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<tbody>
<tr>
<td>5.1</td>
<td>Map regionally important agricultural land using agreed mapping principles</td>
<td>Department of Planning and Environment; Department of Primary Industries</td>
</tr>
<tr>
<td>5.2</td>
<td>Reflect the outcomes of the regionally important agricultural lands mapping project in Local Plans</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
</tbody>
</table>
Maximising the productivity of resource lands

**Energy Resources**

The Illawarra Region lies partly within the Southern Coalfield which provides the only hard coking coal in NSW and is in high demand for steel production around the world.

Mining areas are largely concentrated in the western and northern portions of the Wollongong local government area. Approximately 8 per cent of the Illawarra Region is covered by coal titles and approximately 50 per cent of the Region is covered by petroleum/CSG titles. There are five colliery holdings (all underground) in the Illawarra Region – three have planning approvals beyond 2030. In the Southern Coalfield, saleable coal production in 2011–12 exceeded 12 million tonnes. The estimated product value was more than $2.5 billion dollars, and State royalties were more than $163 million dollars.

More than 84 per cent of the Region’s petroleum and gas resource is covered by either the NSW Government’s two kilometre coal seam gas (CSG) residential exclusion zone, the Sydney Catchment Authority Special and Controlled Areas, and/or National Parks. Given the nature of these existing constraints, land use proposals that have the potential to further sterilise the available coal, coal seam gas and/or petroleum resources should be carefully considered and justified.

**Extractive Resources**

In 2010–11, quarries in the Illawarra produced approximately 5.2 million tonnes of hard rock and sand which represented 23 per cent of the State’s total construction material production for that year. Regionally significant resources include (see map on p.73):

- important sources of hard rock aggregate in Kiama and Shellharbour, as well as scattered quarries in Shoalhaven, and sand and gravel resources from alluvial deposits along the Shoalhaven River
- the Dunmore – Shellharbour Hills area which contains significant reserves of hard rock and sand resources that are important to the regional and Sydney construction markets. Quarries in this area need to be safeguarded against pressure from residential encroachment and managed to achieve certainty for extraction and biodiversity outcomes.

**Residential Development**

Shellharbour Council has undertaken an extensive planning exercise to identify appropriate land uses in its urban fringe lands, taking into account a range of issues, including the importance of the Dunmore Hills extractive resource. As Council proceeds to consider planning proposals to rezone lands identified under this process, the potential impact on the continued extraction of resource lands needs to be a high priority.

In addition, identified release areas such as Shell Cove (near Bass Point Quarry) and Spring Creek (near Bombo Quarry) have sequenced development to ensure the ongoing operation of working quarries. This approach to the staged roll-out of new release areas in the vicinity of extractive operations should continue.

**Biodiversity values**

The Dunmore Hills area contains 830 hectares of native vegetation including State and nationally listed threatened species and endangered ecological communities including *Melaleuca armillaris*, Illawarra Subtropical Rainforest and Illawarra Lowlands Grassy Woodland, which are only known to occur in the Illawarra Region.

In the past, conservation outcomes associated with extraction activities have been negotiated on an application-by-application basis which has resulted in poor outcomes for both quarry operations and biodiversity.

The 2011 *Strategy for the Conservation and Management of Biodiversity in the Dunmore – Shellharbour Hills Area* establishes a framework that can be used to identify larger term biodiversity outcomes, while providing certainty for the continued extraction of the hard rock resource. Resolving biodiversity outcomes through a strategic process will provide certainty and streamline development assessment processes for future extraction activities.
Water Resources

Approximately 21 per cent of the Illawarra Region is located within the Sydney Drinking Water Catchment Area, with the majority of the Region’s water sourced from the Avon and Woronora reservoirs. A considerable proportion of the reservoirs are within the Woronora and Shoalhaven ‘Special Areas’, which serve as a buffer to the Region’s drinking water and are managed for drinking water and environmental protection. The protection of water quality and water quantity in the Sydney water catchment and Special Areas is essential for the health and security of communities in the Illawarra, Sydney and surrounding regions.

Activities such as coal mining and coal seam gas extraction will continue over the next few decades, with long wall mining already occurring under the water catchment, and particularly the Woronora Special Area. Coal and coal seam gas activities have the potential to impact on water catchments, water quality and quantity, and water supply infrastructure. It is important that these proposals continue to be carefully scrutinised using the best available science.

As has been the case since the introduction of rigorous planning and development controls for Sydney’s water catchment areas, any development in the Sydney drinking water catchment should have a neutral or beneficial effect on water quality, and should not result in a reduction in the quantity of water reaching reservoirs.

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<tr>
<td>5.3</td>
<td>Commence a strategic biodiversity assessment of the Dunmore Hills area to provide certainty for the long term extraction of hard rock resources through the establishment of either biodiversity certification and/or bio-banking agreements</td>
<td>NSW Office of Environment and Heritage; Shellharbour City Council; Kiama Municipal Council</td>
</tr>
<tr>
<td>5.4</td>
<td>The sequencing of release areas in the vicinity of mineral resources should ensure extraction activities can continue</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>5.5</td>
<td>Ensure Sydney Drinking Water Catchment areas are protected from development that does not meet the neutral or beneficial effect test</td>
<td>Wollongong City Council; Shoalhaven City Council; NSW Office of Environment and Heritage; Sydney Catchment Authority</td>
</tr>
</tbody>
</table>
MANAGING THE ILLAWARRA’S ENVIRONMENT AND HERITAGE

The Illawarra is fortunate to have many unique environmental and heritage features which contribute to an attractive lifestyle for residents, and which provide tourism and recreational opportunities that help to enhance the economy.

Our draft Plan for the Illawarra acknowledges the conservation and tourist values of these environment and heritage assets and the importance of protecting biodiversity at the regional and local level.

Our focus is on where the Regional Growth and Infrastructure Plan can influence significant regional environmental and heritage outcomes, as well as give direction to Councils on the management of these issues at the local level.

The Illawarra Region is one of the most biologically diverse in NSW. It supports both high conservation value terrestrial and aquatic biodiversity. These values provide the basis for the Region’s tourism and recreation, and provides significant scenic amenity for its residents.

The Region has major hazards such as flooding, coastal inundation, bushfire and sea level rise; with a changing climate likely to present new longer term challenges to our environment. Protection of key environment and heritage assets, and protection from and mitigation of natural hazards, are important issues that need to be considered at the State, regional and local level. Our draft Plan for the Illawarra provides an opportunity to focus on regional opportunities to protect key environment and heritage assets.

A strategic approach to the planning for environment and heritage protection

An enduring criticism of the interaction of development assessment and environment or heritage protection processes is that they do not provide a strategic approach to land use planning and are often reactive. Our draft Plan for the Illawarra recognises that a more strategic approach to identifying key environment and heritage assets is needed so that councils can ensure their planning controls avoid and minimise the impact of development on significant areas.

The Office of Environment and Heritage has mapped key environmental and heritage values across the Region based on the criteria set out below:

- existing conservation areas: including national parks and reserves, declared wilderness areas, marine parks, crown reserves dedicated for environmental protection and conservation, and flora reserves
- native vegetation of high conservation value: including vegetation types which have been over-cleared or occur within over-cleared landscapes; old growth forest, and rainforest
- threatened species, populations and ecological communities or their habitats
- major rivers and streams and their riparian areas; Important wetlands; and coastal lakes and estuaries.

Other important heritage values include:

- Aboriginal heritage, including Aboriginal places, Aboriginal objects, and cultural landscapes
- non-Aboriginal heritage, including places and sites listed on the NSW Heritage Inventory.
The map is recommended for use at a regional planning level and gives an indication of relative biodiversity values at this scale. While this data may provide an indication of relative biodiversity significance at the local level, users should be aware that the data has limitations including those of scale and positional accuracy of attributes.
Councils will be required to utilise this map when undertaking local strategic planning so that areas identified for new or more intensive development can be located so that the potential impacts on environment and heritage values are avoided or mitigated. Where it is not possible to avoid impacts, Councils will be required to consider how the impacts can be best managed through particular planning controls or other environmental management mechanisms. Our draft Plan for the Illawarra also identifies that it may be necessary to pursue development that could impact on key assets and in these areas, such as in West Dapto, offset mechanisms such as biodiversity certification may be necessary.

Councils will also be expected to ensure existing environmental protections in local plans are maintained.

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<th>ACTION</th>
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<tr>
<td>6.1</td>
<td>Local plans will be prepared using key environment and heritage assets (as mapped) to: ■ avoid and minimise the impact of development on key assets and where not possible, consider appropriate offset or other mitigation mechanisms ■ maintain existing environmental protections for key assets</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
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</tbody>
</table>

**Protecting the Illawarra Biodiversity Corridor**

The *Illawarra Biodiversity Action Plan 2011* and work done by the Office of Environment and Heritage under the *South Coast Regional Conservation Plan* have identified key regional biodiversity corridors in the Illawarra which run from the Woronora Special Area in the north, along the escarpment south and connect to the corridor around Jervis Bay and south to beyond Ulladulla. These include a number of important east-west links between coastal parks and forests, and the hinterland. Maintaining and improving these corridor values is important to ensure they protect and enhance ecological connections and the movement and dispersal of plants and animals.

Identifying environmental corridors that expand upon and provide linkages and pathways between different areas of habitat is a critical step in securing ecological connectivity and long term viability. These corridors incorporate many different values including a diversity of vegetation types across different landscape features including the escarpment, foothills and coastal plain; habitat for a range of threatened and non-threatened fauna and flora, and threatened ecological communities.

The Illawarra Escarpment is a defining feature of the Illawarra Biodiversity Corridor, especially in the north of the Region. Vegetation on the foothills and coastal plain of the Illawarra is more dispersed and vulnerable. Due to the historic loss of vegetation through agricultural uses and settlement, many of the plant communities on the coastal plain have high conservation value, or are listed as Threatened Ecological Communities. Some of these communities, such as Illawarra Subtropical Rainforests, Illawarra Lowlands Grassy Woodland are only found in the...
Illawarra Region. Accordingly, they have very high conservation priority for the Region. The Region also contains significant habitat for a number of threatened flora and fauna species.

The pressures of population growth, fragmentation of landholdings and increasing urban development and invasive species have the potential to threaten the landscape connections in the Region.

While the biodiversity corridors identified represent important biodiversity links within the Region, they can support mixed uses where those impacts can protect or improve the corridor values. For example, the areas identified for Dunmore Hills and Yallah Corridor are also identified for extraction and urban development. Opportunities to maximise and improve the conservation of the corridors will be considered through the planning process for development of these areas.

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<tr>
<td>6.2</td>
<td>Clarify the location of the corridor and the important environmental values that need to be protected</td>
<td>Office of Environment and Heritage; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.3</td>
<td>Local Plans should aim to protect the lands identified within the Illawarra Biodiversity Corridor while also having regard to other land uses in the corridor including extraction and urban development</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
</tbody>
</table>

Protecting biodiversity in new release areas

Protecting biodiversity assets is an important consideration as the Region grows, particularly in new release areas such as West Dapto and Nowra-Bomaderry.

Biodiversity certification gives planning authorities the option to integrate biodiversity conservation with proposed development outcomes at the strategic planning stage. It looks at development and environment planning at the landscape scale and ensures that new development will improve or maintain biodiversity values. It encourages development to be located away from areas of high conservation value and enables these areas to be protected in perpetuity. However, where impacts to biodiversity values are unavoidable, those impacts are offset by applying conservation measures to land identified for biodiversity protection.

If biodiversity certification is conferred on an area, individual development applications are not required to assess impacts on biodiversity values and threatened species. This is because the issue has been addressed at a strategic scale, saving time and money. The process assures housing outcomes while also protecting biodiversity values.

Working cooperatively, Wollongong Council, the Department of Planning and Environment and the Office of Environment and Heritage will continue to progress biodiversity certification for the West Dapto urban release area. In the next twelve months, a detailed package will be brought forward that will set out the areas available for development, the areas identified for protection and the offset areas and potential funding mechanisms, which may include a levy.

In the Shoalhaven, the planning for new release areas at Nowra-Bomaderry did incorporate a strategic approach and it was identified that biodiversity certification wasn’t needed over all release areas. However, recording the processes, outcomes and justifications showing how biodiversity planning for the release areas generally achieved a maintain or improve outcome will be important so that the issue does not need to be repeated with every development application.
The Nowra-Bomaderry Structure Plan has already identified the areas that require clearing and the areas of high value vegetation that have been protected through zoning. We will continue to work with Shoalhaven Council and the Office of Environment and Heritage to determine the best way to identify the natural biodiversity in these areas and whether broader or more specific offsetting strategies are needed for places like Mundamia or Cramms Road release area.

More broadly, when Councils are considering the rezoning of new release areas, particularly in the southern part of the Region, they will be expected to ensure a clear and comprehensive understanding exists of the biodiversity values of the area. While the protection provided by the Threatened Species Conservation Act continues to apply, Councils should avoid putting pressure on areas with threatened species unless there is a means identified to minimise or improve biodiversity and habitat values.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4</td>
<td>Continue with biodiversity certification for West Dapto.</td>
<td>NSW Office of Environment and Heritage; Wollongong City Council</td>
</tr>
<tr>
<td>6.5</td>
<td>Record the processes, justifications and biodiversity outcomes in the planning of Nowra-Bomaderry land releases</td>
<td>NSW Office of Environment and Heritage; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.6</td>
<td>Protect key environment and heritage assets when rezoning land</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
</tbody>
</table>

Supporting the continued health of coastal landscapes

The Region includes a number of important coastal lakes and lagoons, significant coastal wetlands, sensitive estuaries and the protected waters of Jervis Bay. The catchments of these lakes and estuaries need to be appropriately managed to avoid impacting on their aquatic habitats. Vulnerable estuaries and coastal lakes that require environmental protection include:

- Bellambi Lake
- Berrara Creek
- Burrill Lake
- Butlers Creek
- Curramong Creek
- Elliot Lake
- Fairy Creek
- Lake Illawarra
- Lake Wollomboola
- Merroo Lake
- Narrawallee Inlet
- Nerindillah Creek
- Shoalhaven River
- Spring Creek
- St Georges Basin
- Swan Lake
- Tabourie Lake
- Termeil Lake
- Towradgi Creek
- Werri Lagoon
- Willinga Lake
- Wowly Gully
The environmental, social and economic values of the Region’s lakes, estuaries and rivers can be affected by over-extraction of water, contamination, and conflicting land uses such as urban expansion.

**Lake Illawarra**

Lake Illawarra is one of the largest coastal lake estuaries in NSW with a 37-kilometre foreshore. The lake is a popular destination for fishing, prawning and sailing. There are several caravan parks located on the foreshores of the lake, and visitation numbers increase significantly during school holiday periods.

Given the planned urban growth in the lake’s catchment, there is potential for water quality issues and increased pressure for recreational uses and foreshore access to the lake, particularly on the western side.

To help support and manage potential impacts, the Environment Protection Authority and the Office of Environment and Heritage have developed a risk-based decision framework to integrate water quality outcomes in the strategic planning process. This approach uses contemporary catchment and ecosystem response modelling to help identify where priorities for investment should be made within the catchment.

The framework allows different development scenarios to be modelled to identify the potential impact on waterways. The potential risks to waterway health can then be considered as part of a broader strategic impact assessment. Where necessary, practitioners can assess the performance of various combinations of land use scenarios and stormwater treatment levels, against agreed management objectives.
Shoalhaven Sensitive Urban Lands

The Sensitive Urban Lands Panel was set up by the NSW Government in 2006 and has guided the planning outcomes for seven potential urban development sites in sensitive coastal locations within Shoalhaven (Culburra Beach, Badgee Lagoon, Comberton Grange, Berrara, North Bendalong, Bendalong, Berringer Lake/Manyana). The Panel’s recommendations have been reflected in planning that is either finalised or substantially progressed for all but one site – the Culburra Beach site.

The Culburra Beach development site contains land within the catchment of Lake Wollumboola. The lands within the catchment are considered unsuitable for urban development because of potential negative impacts on the Lake, which is a sensitive intermittently closing and opening lake with very high conservation values.

The Office of Environment and Heritage has also completed a study on the Environmental Sensitivity of Lake Wollumboola. Its report will form part of the consideration of development proposals at Culburra and potential implications on Lake Wollumboola.

The outcomes and recommendations of the Sensitive Urban Lands Review and the report on the environmental sensitivity of Lake Wollumboola will guide future development proposals within the Lake Wollumboola catchment.

It will be important for any future planning proposals in this area to protect the environmental values of Lake Wollumboola. This may require strong environmental zonings and other appropriate provisions in a Local Plan.

The Sensitive Urban Lands Review will continue to guide land use planning decisions for the sites yet to be finalised as well as any future planning proposals within the seven sensitive coastal locations.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.7</td>
<td>Local Plans should ensure the ongoing protection of vulnerable estuaries and coastal lakes from inappropriate development types</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.8</td>
<td>Outcomes of the risk-based decision framework to integrate water quality outcomes in the strategic planning process will be implemented by Councils through planning and infrastructure programming of development sites within Lake Illawarra catchment</td>
<td>Wollongong City Council; Shellharbour City Council</td>
</tr>
<tr>
<td>6.9</td>
<td>Continue to implement the recommendations of the Sensitive Urban Lands Panel, including guiding the development form and environmental management of Lake Wollumboola</td>
<td>Department of Planning and Environment; NSW Office of Environment and Heritage; Shoalhaven City Council</td>
</tr>
</tbody>
</table>
Supporting the protection of Aboriginal cultural heritage

The Illawarra has a rich and diverse Aboriginal history. Previous Aboriginal cultural heritage studies within the Region have identified a large and diverse range of Aboriginal sites, including sites with high scientific and cultural values. Because of the richness of Aboriginal heritage in the Region, it is inevitable that urban growth and development will impact on existing and yet to be identified cultural heritage sites and places. The loss of cultural heritage can be distressing to Aboriginal people, particularly the loss of, or damage to, places of cultural significance. There is a need for effective mechanisms for Aboriginal people to be consulted in regard to their heritage.

The National Parks and Wildlife Act 1974 (NPW Act) provides for the statutory protection of Aboriginal objects and Aboriginal places. The objects generally protected by the NPW Act are archaeological sites with tangible evidence of pre-contact presence.

Harm to Aboriginal objects and places and areas of significance to Aboriginal people should be avoided wherever possible. Where such harm cannot be avoided, proposals that reduce the extent and severity of this harm should be developed in accordance with relevant statutory processes.

In the Illawarra, the assessment of Aboriginal cultural heritage is most relevant where there are growth pressures associated with the development of new release areas such as those in West Lake Illawarra and Nowra-Bomaderry, or when there is a rezoning of land to allow for more intensive development.

Navigating the process to ensure that Aboriginal cultural heritage is fully considered and protected through the development of new release areas is often complex and challenging. In West Dapto for example, significant investigations have been undertaken across the release area to determine areas of particular risk for Aboriginal cultural heritage.

Outcomes of these investigations, which followed relevant Office of Environment and Heritage guidelines, require different levels of additional investigations depending on the values of particular parcels of land. For some parts of the release area, there is a low risk of Aboriginal heritage values and no additional work is required, while in other areas, there is a need for additional detailed studies to manage high risk areas.

There is a need to provide clarity about what the outcomes of this work means for individual development areas within West Dapto and to guide the development of more detailed precinct and neighbourhood plans. This would identify triggers for the appropriate assessment process, and when each part of the process should be completed.

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<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
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<tbody>
<tr>
<td>6.10</td>
<td>Develop an Aboriginal cultural heritage process map to clarify and guide the additional investigations for the development of precinct and neighbourhood plans in West Dapto</td>
<td>NSW Office of Environment and Heritage; Department of Planning and Environment</td>
</tr>
</tbody>
</table>
IMPLEMENTING THE PLAN FOR THE ILLAWARRA

Delivery of our final Plan for the Illawarra is as important as the preparation of the Plan. It is important that we create the right structure to ensure ongoing collaboration and engagement so that our Plan for the Illawarra is implemented. This requires a clear understanding and agreement on the strategies within the Plan by all stakeholders. It also requires a commitment to the ongoing monitoring of the Plan with indicators that establish its success and the areas where a revised approach may be necessary.

It is important that we share the responsibility for delivering and monitoring the growth outcomes outlined in the draft Plan with our important regional stakeholders, including Councils, other state agencies and the development and services sectors. Without that shared approach and agreement to work towards the strategies in the plan, we cannot ensure that it is implemented at the State, regional and local level.

The diagram below summarises our approach to the implementation of the final Plan.

---

Advisory Group
- Key State and local government authorities
- Meet twice yearly
- Oversees progress
- Independent chair

Local Planning Initiatives
- Local Plans
- Housing targets
- Housing strategies
- Network of centres
- Strategic Mapping (Agriculture/Aboriginal heritage)

Regional Planning Initiatives
- Transformative places projects
- Biocertification
- Growth infrastructure planning
- Integrated Release Area Delivery Frameworks

Monitoring Mechanisms
- Annual Monitoring Report
- IUDP – annual update report*
- Industrial Lands – annual update report*

* Summaries to be included in annual monitoring report
Governance

A structure will be developed that will govern how we will work with others to regularly review progress of the initiatives and actions within the final Plan.

The Illawarra Regional Growth and Infrastructure Plan Advisory Group will be established with membership from the Department of Planning and Environment, the four Councils, the Department of Premier and Cabinet, Transport for NSW, and Regional Development Australia. The Group will be convened biannually to oversee progress on projects and identify where policy interventions or resourcing may be required.

To ensure there is independence and transparency in how the final Plan will be implemented an independent chair will be appointed for the Advisory Group.

The Advisory Group will be supplemented by outcome specific groups that bring together appropriate personnel to manage particular issues or projects. Key structures that support the delivery and monitoring of the Illawarra Regional Growth and Infrastructure Plan will include the Illawarra Urban Development Program Committee and the integrated delivery frameworks that have been established to support the delivery of housing in the West Lake Illawarra and Nowra-Bomaderry new release areas.

Local planning initiatives

The final Illawarra Regional Growth and Infrastructure Plan will provide the framework and context to guide the preparation of Local Plans. In addition to implementing the requirements of state planning policies, all four local Councils will be required to implement the objectives and actions of this draft Plan appropriate to their local area, for example, through the development of housing strategies, plus reviews and amendments of their Local Plans.

Local Plans will need to demonstrate that important policy outcomes such as housing targets and the network of centres are supported through the zoning and controls contained in Local Plans.

Whenever Councils want to change their planning and development controls they will need to ensure they are consistent with the Illawarra Regional Growth and Infrastructure Plan. We will ensure that there is a connection between this draft Plan and the statutory requirements of the plan making process under the Environmental Planning and Assessment Act, 1979.

In additional to statutory mechanisms, Councils will also be expected to lead and/or participate in relevant local strategic projects such as urban design and public domain improvement projects.
Regional planning initiatives
A number of outcomes in this draft Plan will require a regional approach. We will develop partnerships with other key stakeholders to undertake projects that will contribute to important regional outcomes. Some of these important initiatives include biodiversity certification, action plans for transformative places, and whole-of-government policy alignment.

Growth Infrastructure Planning
We will use the housing policies in the final Illawarra Regional Growth and Infrastructure Plan, along with the annual monitoring of development activity through the Illawarra Urban Development Program, to advise infrastructure agencies about when their new investments should be timed. This is an important part of the growth infrastructure planning process which will require us to advise Treasury on how well agency planning complies with the approaches in our draft Plan for the Illawarra.

Monitoring and review
Monitoring of the implementation of the final Plan will be undertaken annually to report on progress and to identify any impediments. Monitoring will also help to identify new actions or tasks that may be required to ensure ongoing opportunities for growth in the Region are being taken up.

The Illawarra Regional Growth and Infrastructure Plan Advisory Group will oversee the production and publication of an Annual Monitoring Report. The Annual Monitoring Report will report on the performance of the Plan against a set of indicators (shown in Appendix B) and draw on the monitoring completed through the Illawarra Urban Development Program and Employment Lands Development Program.

The Annual Monitoring Report will advise on progress in implementing the Plan and whether an action has been achieved, is on track, or needs improvement.

The entire Plan will be reviewed at least every five years.
GLOSSARY

Ageing industry
The ageing industry encompasses aged care and health related services in the Region used as a means of developing the needs of the ageing population.

Biodiversity Corridor
An area of land identified to connect flora and fauna populations separated by human developments and activities for the purpose of increasing the biodiversity of an area.

Biodiversity Certification
A streamlined biodiversity assessment for areas marked for development at the strategic planning stage, including a range of options for offsetting impacts on biodiversity.

Development ready
Land that is unconstrained, serviceable and able to be developed.

Employment Lands
Land that is zoned industrial, business or similar purposes under council Local Plans.

Employment Lands Development Program
The Employment Lands Development Program (ELDP) is the NSW Government’s key program for managing the supply for employment lands in the Region.

Existing Urban Areas
Land zoned for an urban purpose excluding greenfield release areas and future employment lands, and includes the northern growth corridor for multi dwelling housing supply and Wollongong Centre for the supply of apartments.

Greenfield development
Urban development occurring on new release areas identified by the NSW Government which had been previously undeveloped or used for other purposes.

Gross Regional Product (GRP)
A measure of the size of a regional economy and productivity. GRP is the market value of all final goods and services produced in a region within a given period of time.

Higher Order Uses
A high order use is a specialised or select service which is present in areas such as administration, recreational and cultural facilities, education and health.

Intermodal (facility)
An area of land used to transfer freight between at least two modes of transport. It is typically used to describe the transfer of shipping containers from road to rail and vice versa.

Innovation Campus
A research and commercial precinct developed by the University of Wollongong. The campus is a centre of innovation, research and education located in close proximity to Wollongong’s Commercial Core and University of Wollongong main campus.

Illawarra
The local government areas (LGAs) of Wollongong, Kiama, Shellharbour and Shoalhaven.

Mega Trends
A collection of trends influenced by economic, social or environmental activity that may change the way people live and the products they demand.
Multi-dwelling
A multi-dwelling is a building containing two or more dwellings (whether attached or detached) on one lot of land, which is accessed at the ground level and includes dual occupancy, townhouses, villas, terraces, and other semi-detached dwellings. This definition differs from the Standard Instrument LEP definition so we can capture dual occupancies as a form of multi-dwelling housing.

Public Domain
The public domain refers to public spaces, used with little to no restriction on a daily basis, by the general public including parks, plazas, streets and public infrastructure.

Urban Feasibility Model (UFM)
Strategic planning tool which calculates the dwelling potential of each LGA in the Region based on current LEPs and DCPs and the economic feasibility of developing dwelling potential based on development costs and local property markets.

Glossary of acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSAL</td>
<td>Biophysical Strategic Agricultural Land</td>
</tr>
<tr>
<td>DEC</td>
<td>Department of Education and Communities</td>
</tr>
<tr>
<td>DPC</td>
<td>Department of Premier and Cabinet</td>
</tr>
<tr>
<td>EEC</td>
<td>Endangered Ecological Community</td>
</tr>
<tr>
<td>iC</td>
<td>Innovation Campus (University of Wollongong)</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IUDP</td>
<td>Illawarra Urban Development Program</td>
</tr>
<tr>
<td>LALC</td>
<td>Local Aboriginal Land Councils</td>
</tr>
<tr>
<td>MDP</td>
<td>Metropolitan Development Program</td>
</tr>
<tr>
<td>OCHRE</td>
<td>Opportunity, Choice, Healing, Responsibility, Empowerment (Aboriginal Affairs)</td>
</tr>
<tr>
<td>RDAI</td>
<td>Regional Development Australia, Illawarra</td>
</tr>
<tr>
<td>RGIP</td>
<td>Regional Growth and Infrastructure Plan</td>
</tr>
<tr>
<td>TfNSW</td>
<td>Transport for New South Wales</td>
</tr>
<tr>
<td>UFM</td>
<td>Urban Feasibility Model</td>
</tr>
</tbody>
</table>
###APPENDIX A

**THE ILLAWARRA’S NETWORK OF CENTRES**

<table>
<thead>
<tr>
<th>CENTRES HIERARCHY</th>
<th>COMMERCIAL CENTRES SERVICING THE ILLAWARRA</th>
<th>KEY FUNCTIONS OF CENTRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Sydney</td>
<td>Sydney</td>
<td>Main focus for national and international businesses, professional services, retail (including major retail), specialty shops and tourism. It is also a premier destination for arts, culture, recreation and entertainment and contains nationally significant heritage and icons. Provides world class education and health facilities. Includes opportunities for a diverse range and intensity of land uses, including high-density residential and mixed use development. A well connected, highly accessible, walkable environment.</td>
</tr>
<tr>
<td>Regional city</td>
<td>Wollongong</td>
<td>Provides a full range of higher order services and activities including business, office and retail uses with arts, culture, recreation and entertainment facilities to serve the wider community and broader Region. Contains major tertiary education and health facilities and incorporates high density commercial and residential development. Wollongong Centre is currently undergoing significant revitalisation with the expansion of redevelopment of the Crown Street Mall and the West Keira Retail Development. The commercial core is the focus with large retail and commercial floor area, including various department store/s. Well connected to public transport and roads with access by walking and cycling. Wollongong’s City Centre Plan provides a framework to achieving the key functions of a regional city whilst also delivering a safe and accessible environment.</td>
</tr>
<tr>
<td>Major regional centre</td>
<td>Warrawong, Dapto, Shellharbour City Centre, and Nowra-Bomaderry</td>
<td>Larger scale centres that service a number of districts, providing a wide range of business, retail and entertainment uses, including discount department stores, warehouses, transport logistics and bulky goods operations. Includes higher density residential development in the centre. Focal point for subregional road and transport networks and servicing for a number of districts. Warrawong is already of a significant size with respect to its commercial and retail capacity but is quite rundown and in need of renewal to address its urban and social performance. Given the future residential development planned for West Dapto, Dapto town centre has the capacity for growth, revitalisation and employment opportunities. The implementation of the Dapto Town Centre Revitalisation Study will enhance Dapto’s role as the major retail and commercial area on the western side of Lake Illawarra and ensure the centre expands to fulfil this role. The recent expansion of Shellharbour City Centre’s retail function will ensure that it continues to perform an important role servicing the southern part of the Region. It is a fully integrated centre with retail, entertainment, commercial, cultural and residential sectors, that is pedestrian friendly. Nowra is the major regional centre that services the southern parts of the Illawarra and further down the coast, incorporating regional government offices with strong links to health and education services. Planning is being undertaken to generate activity in the Nowra CBD with initiatives to improve the public domain and access, making better use of public transport.</td>
</tr>
<tr>
<td>CENTRES HIERARCHY</td>
<td>COMMERCIAL CENTRES SERVING THE ILLAWARRA</td>
<td>KEY FUNCTIONS OF CENTRE</td>
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</tr>
<tr>
<td><strong>Major town</strong></td>
<td>Corrimal, Fairy Meadow, Figtree, Unanderra, Warilla, Albion Park, Kiama, Ulladulla, Vincentia district</td>
<td>Centres that service the local area and surrounding suburbs, providing a range of business, retail and entertainment uses, including supermarkets, health and other services with higher density residential development in the centre. There may be potential for retail expansion in some of these centres to include discount department stores such as Corrimal for example. Corrimal is the major town in the northern Illawarra and has an important role in servicing the needs of the neighbouring northern villages. Increased densities and retail growth will be supported within the existing centre in accordance with the Corrimal Town Centre Revitalisation Strategy. Fairy Meadow has evolved to include increased densities and an expanded retail offering at its centre to support the needs of surrounding areas, such as University of Wollongong and the Innovation Campus. Figtree is already functioning as a major town from a retail perspective. Its role within the network of centres needs to be reassessed against its potential impact on the role of other centres. Unanderra with its access to a regional transport network and local employment opportunities has the capacity for increased residential densities and potential for expansion to its centre’s function. Warilla is already of a considerable size in terms of retail and commercial floor space. The focus for Warilla will be to continue to manage and improve the existing centre. Albion Park is now of a substantial size and further growth and expansion of the centre, including the ongoing revitalisation along the established shopping precinct may be undertaken to support population growth. Kiama is the major town for the Kiama LGA and its strong existing cultural heritage and tourism functions will continue to support development. Ulladulla is a major town servicing areas south of Nowra. Tourist inflow (particularly during holiday periods) presents opportunities for retailers to take full advantage of existing potential.</td>
</tr>
<tr>
<td><strong>Town</strong></td>
<td>Examples include: Helensburgh, Thirroul, Woonona, Oak Flats, Shellharbour Village, Shell Cove, Gerringong, Berry</td>
<td>Small local centres that provide a range of business and retail uses, including supermarkets, health and other services with some residential uses, to serve the needs of people in the local area. Reliant on higher order centres for shopping and employment.</td>
</tr>
<tr>
<td>CENTRES HIERARCHY</td>
<td>COMMERCIAL CENTRES SERVICING THE ILLAWARRA</td>
<td>KEY FUNCTIONS OF CENTRE</td>
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<tr>
<td><strong>Neighbourhood Centres</strong></td>
<td>Examples include: Coledale, Bulli, Keiraville, Mt Kembla, Jamberoo, Kangaroo Valley (to be applied to all relevant centres by council)</td>
<td>Typically a cluster of shops within a village that provide a range of small-scale business, retail and residential uses to serve the needs of people in the surrounding neighbourhood. Whilst renewal may occur in villages’ neighbourhood centres over the next 25 years, this will occur at an appropriate scale to protect and enhance the character of these centres.</td>
</tr>
<tr>
<td><strong>Specialist Centre</strong></td>
<td>Innovation Campus</td>
<td>Specialist centre providing high quality office space targeted to research and development enterprises and supported by a range of facilities including accommodation, hotel and conference centre, shops and services. With its proximity to Wollongong Commercial Core, commercial and retail uses at Innovation Campus should not undermine the primacy of Wollongong as the regional centre for higher order commercial and retail functions.</td>
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</tbody>
</table>
## APPENDIX B
### PERFORMANCE INDICATORS

<table>
<thead>
<tr>
<th>THEME</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformative Places</td>
<td>- Number of action plans completed for transformative places</td>
</tr>
<tr>
<td>Developing a prosperous Illawarra</td>
<td>- Number of total and new jobs</td>
</tr>
<tr>
<td></td>
<td>- Amount of commercial floor space available in major centres</td>
</tr>
<tr>
<td></td>
<td>- Amount of retail floor space available in major centres</td>
</tr>
<tr>
<td></td>
<td>- Amount of industrial land available</td>
</tr>
<tr>
<td></td>
<td>- Amount of available industrial land serviced</td>
</tr>
<tr>
<td>Meeting the Illawarra’s demand for housing</td>
<td>- Capacity for dwellings in existing urban areas</td>
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<td></td>
<td>- Proportion of new housing located in centres</td>
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<td></td>
<td>- Mix of dwelling types</td>
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<tr>
<td></td>
<td>- Number of new dwellings constructed</td>
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<tr>
<td>Providing the infrastructure necessary for</td>
<td>- Total lots zoned and service ready for greenfield development</td>
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<tr>
<td>the Illawarra’s growth</td>
<td>- Number of strategic infrastructure investments made</td>
</tr>
<tr>
<td>Managing the Illawarra’s agriculture and</td>
<td>- Increase in agricultural production beyond CPI</td>
</tr>
<tr>
<td>natural resources</td>
<td>- Tonnages of hard rock extracted</td>
</tr>
<tr>
<td>Managing the Illawarra’s environment and</td>
<td>- Total area protected under a biocertification process</td>
</tr>
<tr>
<td>heritage</td>
<td>- Extent of regionally significant biodiversity protected by environmental</td>
</tr>
<tr>
<td></td>
<td>zones</td>
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<tr>
<td></td>
<td>- Number of precinct and neighbourhood plans that have completed the</td>
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<td></td>
<td>process of considering and protecting Aboriginal cultural heritage.</td>
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</tbody>
</table>
APPENDIX C
SUMMARY OF ACTIONS

Transformative places

WOLLONGONG CENTRE

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
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<tbody>
<tr>
<td>1.1 Develop a Wollongong Centre Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Short</td>
</tr>
<tr>
<td>An urban renewal strategy for the Wollongong Centre to examine the feasibility of existing development controls, review how the different precincts of the Centre operate, how these precincts integrate through public and private transport networks, as well as identify specific infrastructure and public domain projects that may be necessary to activate new development in the area</td>
<td>Department of Planning and Environment; Wollongong City Council; NSW Health; Transport for NSW</td>
<td>Short</td>
</tr>
<tr>
<td>Identifying the growth trends and potential of the University; coordinate infrastructure and access arrangements to the University, and identify student accommodation opportunities</td>
<td>Department of Planning and Environment; Wollongong City Council; TAFE Illawarra; University of Wollongong; Transport for NSW</td>
<td>Short</td>
</tr>
<tr>
<td>Increasing housing opportunities in the Centre, improve the quality of public spaces and make the centre more vibrant</td>
<td>Department of Planning and Environment; Wollongong City Council; University of Wollongong;</td>
<td>Short</td>
</tr>
<tr>
<td>Developing strategies to better link centres, corridors and growth areas to Wollongong Centre</td>
<td>Department of Planning and Environment; Transport for NSW</td>
<td>Short</td>
</tr>
</tbody>
</table>

NORTHERN GROWTH CORRIDOR

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Develop a Northern Growth Corridor Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Resourcing to undertake town centre planning in key centres in the Northern Growth Corridor</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Ensuring that the delivery of transport services and access to these services matches the demand for growth within the corridor</td>
<td>Department of Planning and Environment; Transport for NSW</td>
<td>Short</td>
</tr>
</tbody>
</table>

* Short 0–5 yrs  Medium 6–10  Long 11+ yrs
### REGIONAL RELEASE AREAS

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3 <strong>Develop a Regional Release Areas Action Plan. The Action Plan will identify specific actions including:</strong></td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Continuing with the Integrated Delivery Framework for West Dapto and Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Wollongong City Council; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Developing an Infrastructure Coordination Plan for West Lake Illawarra</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Short</td>
</tr>
<tr>
<td>Developing an Infrastructure Coordination Plan for Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Short</td>
</tr>
</tbody>
</table>

### NOWRA CENTRE

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 <strong>Develop a Nowra Centre Action Plan. The Action Plan will identify specific actions including:</strong></td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Planning for public domain improvements, model urban design outcomes and examine access issues in and around the Centre to support its economic growth</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Short</td>
</tr>
<tr>
<td>Developing initiatives to increase public transport usage and better integrate walking and cycling in the Nowra Centre</td>
<td>Department of Planning and Environment; Shoalhaven City Council; Transport for NSW</td>
<td>Short</td>
</tr>
</tbody>
</table>
### INTERNATIONAL TRADE GATEWAY

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 Develop an International Trade Gateway Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Ensuring Maldon-Dombarton rail corridor is protected in local planning controls</td>
<td>Wollongong City Council</td>
<td>Long</td>
</tr>
<tr>
<td>Investigating the implications on the supply of industrial land for off-site industrial areas such as Kembla Grange that can support port and non-port related uses</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Medium</td>
</tr>
</tbody>
</table>

### SHOALHAVEN DEFENCE BASE

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6 Develop a Shoalhaven Defence Bases Action Plan. The Action Plan will identify specific actions including:</td>
<td>Department of Planning and Environment</td>
<td>Short</td>
</tr>
<tr>
<td>Ensuring that Local Plans map and protect the air and ground space around defence facilities so that new development does not hinder expansion</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Protecting the capability of Nowra's commercial and industrial precincts to continue to grow defence related industries (including support for infrastructure planning and delivery)</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

* Short 0–5 yrs  Medium 6–10  Long 11+ yrs
## Developing a prosperous Illawarra

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Incorporate the framework to support economic growth into a broader economic development plan for the Illawarra</td>
<td>Department of Premier and Cabinet; NSW Trade and Investment</td>
<td>Short</td>
</tr>
<tr>
<td>2.2 Identify the potential for new visitor assets or activities for the tourism industry</td>
<td>Department of Planning and Environment; Destination Wollongong; Tourism Shellharbour; Kiama Tourism; Shoalhaven Tourism; Councils</td>
<td>Medium</td>
</tr>
<tr>
<td>2.3 Ensure aged appropriate planning principles are incorporated into local planning</td>
<td>Department of Planning and Environment; Councils</td>
<td>Medium</td>
</tr>
<tr>
<td>2.4 Ensure an ongoing capacity for office space through local planning controls</td>
<td>Department of Planning and Environment; Councils</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5 Support the growth of the University of Wollongong by coordinating infrastructure and access arrangements and identifying student housing opportunities</td>
<td>Department of Planning and Environment; Transport for NSW; Wollongong City Council</td>
<td>Short</td>
</tr>
<tr>
<td>2.6 Ensure an ongoing supply of industrial lands through Councils’ Local Plans</td>
<td>Department of Planning and Environment; Councils</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.7 Investigate the implications on the supply of industrial land for off site industrial areas that can support the ongoing development of the Port of Port Kembla</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Medium</td>
</tr>
<tr>
<td>2.8 Ensure Council-based mechanisms or controls will support the network of centres, including resisting inappropriate out-of-centre retailing</td>
<td>Department of Planning and Environment; Councils</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.9 Monitor the supply of industrial lands through the Employment Lands Development Program</td>
<td>Department of Planning and Environment</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.10 Collaborate with servicing agencies to support the market take-up of industrial land</td>
<td>Department of Planning and Environment; Servicing agencies; Councils</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.11 Conduct a pilot project for the strategic assessment of land held by a Local Aboriginal Land Council</td>
<td>Department of Planning and Environment; Aboriginal Affairs NSW</td>
<td>Short</td>
</tr>
</tbody>
</table>

* Short 0–5 yrs  Medium 6–10  Long 11+ yrs
## Meeting the Illawarra’s Demand for Housing

<table>
<thead>
<tr>
<th>ACTION</th>
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</thead>
<tbody>
<tr>
<td>3.1 Ensure a surplus capacity for housing in existing urban areas to accommodate a range of housing types throughout the Region by requiring Councils to regularly review their strategies for housing and demonstrate the achievement of housing targets</td>
<td>Department of Planning and Environment; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3.2 Explore the potential to shift planning controls in Kiama and Gerringong town centres to generate more feasible housing supply in existing urban areas</td>
<td>Department of Planning and Environment; Kiama Municipal Council</td>
<td>Short</td>
</tr>
<tr>
<td>3.3 Review the potential of the greenfield release areas identified in the Kiama Urban Strategy, and identify an appropriate boundary for the southern expansion of Gerringong</td>
<td>Department of Planning and Environment; Kiama Municipal Council</td>
<td>Short</td>
</tr>
<tr>
<td>3.4 Continue implementing the Integrated Delivery Framework for West Dapto and Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Wollongong City Council; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3.5 Continue to monitor land and housing supply through the Illawarra Urban Development Program, and incorporate the Shoalhaven LGA</td>
<td>Department of Planning and Environment; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
<td>Ongoing</td>
</tr>
<tr>
<td>3.6 Implement neighbourhood planning principles in Local Plans, Development Control Plans, and other council based mechanisms</td>
<td>Department of Planning and Environment</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

* Short 0–5 yrs  Medium 6–10  Long 11+ yrs
## Providing the infrastructure necessary for Illawarra’s growth

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4.1 Develop an Infrastructure Coordination Plan for West Lake Illawarra</td>
<td>Department of Planning and Environment; Wollongong City Council</td>
<td>Short</td>
</tr>
<tr>
<td>4.2 Develop an Infrastructure Coordination Plan for Nowra-Bomaderry</td>
<td>Department of Planning and Environment; Shoalhaven City Council</td>
<td>Short</td>
</tr>
<tr>
<td>4.3 Each Council should ensure it has access to long term capacity to manage waste associated with projected growth</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
<td>Long</td>
</tr>
<tr>
<td>4.4 Continue to build a case for investment in strategic infrastructure in the Region</td>
<td>Department of Planning and Environment; Infrastructure NSW; Department of Premier and Cabinet; NSW Trade and Investment; NSW Health, Department of Education and Training and University of Wollongong</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

## Managing the Illawarra’s agriculture and natural resources

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Map regionally important agricultural land using agreed mapping principles</td>
<td>Department of Planning and Environment; Department of Primary Industries</td>
<td>Short</td>
</tr>
<tr>
<td>5.2 Reflect the outcomes of the regionally important agricultural lands mapping project in local plans</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
<td>Medium</td>
</tr>
<tr>
<td>5.3 Commence a strategic biodiversity assessment of the Dunmore Hills area to provide certainty for the long term extraction of hard rock resources through the establishment of either biodiversity certification and/or bio-banking agreements</td>
<td>NSW Office of Environment and Heritage; Shellharbour City Council; Kiama Municipal Council</td>
<td>Short/ Medium</td>
</tr>
<tr>
<td>5.4 The sequencing of release areas in the vicinity of mineral resources should ensure extraction activities can continue</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
<td>Long</td>
</tr>
<tr>
<td>5.5 Ensure Sydney Drinking Water Catchment areas are protected from development that does not meet the neutral or beneficial effect test</td>
<td>Wollongong City Council; Shoalhaven City Council; NSW Office of Environment and Heritage; Sydney Catchment Authority</td>
<td>Ongoing</td>
</tr>
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</table>

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<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Local plans will be prepared using key environment and heritage assets (as mapped) to:  ■ avoid and minimise the impact of development on key assets and where not possible, consider appropriate offset or other mitigation mechanisms  ■ maintain existing environmental protections for key assets</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.2</td>
<td>Clarify the location of the corridor and the important environmental values that need to be protected</td>
<td>Office of Environment and Heritage; Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.3</td>
<td>Local Plans should aim to protect the lands identified within the Illawarra Biodiversity Corridor while also having regard to other land uses in the corridor including extraction and urban development</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.4</td>
<td>Continue with biodiversity certification for West Dapto</td>
<td>NSW Office of Environment and Heritage; Wollongong City Council</td>
</tr>
<tr>
<td>6.5</td>
<td>Record the processes, justifications and biodiversity outcomes in the planning of Nowra-Bomaderry land releases</td>
<td>NSW Office of Environment and Heritage; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.6</td>
<td>Protect key environment and heritage assets when rezoning land</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.7</td>
<td>Local Plans should ensure the ongoing protection of vulnerable estuaries and coastal lakes from inappropriate development types</td>
<td>Wollongong City Council; Shellharbour City Council; Kiama Municipal Council; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.8</td>
<td>Outcomes of the risk-based decision framework to integrate water quality outcomes in the strategic planning process will be implemented by Councils through planning and infrastructure programming of development sites within Lake Illawarra catchment</td>
<td>Wollongong City Council; Shellharbour City Council</td>
</tr>
<tr>
<td>6.9</td>
<td>Continue to implement the recommendations of the Sensitive Urban Lands Panel, including guiding the development form and environmental management of Lake Wollumboola</td>
<td>Department of Planning and Environment; NSW Office of Environment and Heritage; Shoalhaven City Council</td>
</tr>
<tr>
<td>6.10</td>
<td>Develop an Aboriginal cultural heritage process map to clarify and guide the additional investigations for the development of precinct and neighbourhood plans in West Dapto</td>
<td>NSW Office of Environment and Heritage; Department of Planning and Environment</td>
</tr>
</tbody>
</table>
REFERENCES

1. Wollongong City Council (2013) Economic Development Strategy
2. Wollongong University (2013) Submission to the Illawarra Discussion Paper
12. ACIL Tasmin (2011) Maldon Dombarton Rail Link Feasibility Study, prepared for the Department of Infrastructure and Transport
22. Deloittes Access Economics (2014) Infrastructure for Illawarra’s Economic Future, for Infrastructure NSW