GOAL 1 – A natural environment, and Aboriginal and historic heritage that is protected, and landscapes that are productive

The North Coast has a wealth of environmental, heritage and natural resources that underpin the region’s economy and create a unique and enviable lifestyle for its residents.

The natural environment plays an important role in the identity, spirituality, and resource base of the Bundjalung, Gumbaynggirr, Dunguhi, Biripi and Yaegl Aboriginal peoples.

The region’s beaches, nature and outdoor activities are identified in North Coast of NSW Destination Management Planning – June 2013 as key attractions. It is important that growth is managed sustainably to protect the region’s environmental and cultural heritage for current and future generations.

The draft Plan:
- aims to protect potentially high environmental value areas and significant farmland by identifying them in planning strategies or local environmental plans;
- identifies and maps areas of potential environmental, Aboriginal and historic heritage and natural resources at the local scale in urban growth areas to inform future land release;
- reviews the methodology of the existing Northern Rivers Farmland Protection Project and Mid North Coast Farmland Mapping Project to apply consistent standards across the region;
- defines urban growth areas and a ‘coastal area’ to achieve a balance between urban expansion and protecting coastal and other environmental assets. Limits are imposed on the location of additional rural residential development in the coastal area (see Goal 2).

Urban Growth Areas and the Coastal Area

Coastal and other environmentally sensitive locations are under pressure due to high demand for housing and employment land. If not appropriately managed, population growth and the spread of low density urban and rural residential development could degrade these assets.

The draft Plan identifies and defines ‘urban growth areas’ and a ‘coastal area’ to achieve a balance between urban expansion and protecting coastal and other environmental assets. Limits are imposed on the location of additional rural residential development in the coastal area (see Goal 2).
permits minor variations to the mapped farmland – prior to finalising the review – to allow isolated pockets of land to be included in urban growth areas where the land does not contribute to agricultural productivity. This provides flexibility and promotes efficient development outcomes; reduces potential land use conflict in rural areas by limiting rural fragmentation and additional rural dwellings; and limits potential conflicts over land use and impacts on the ability to extract resources.

Many of these important environmental lands are protected in national parks, nature reserves and conservation areas. The NSW Government continues to expand its reserve system on the North Coast. The Everlasting Swamp National Park was created in late 2014 to protect around 1,700 hectares of coastal floodplain wetlands near Maclean. This park will protect and enhance internationally significant water bird habitats and estuarine biodiversity, and support sustainable fishery stocks.

The North Coast has a rich and diverse Aboriginal and historic heritage, with many important places, objects and landscapes. More than 2,500 important State or local items are heritage listed, including iconic sites such as the Cape Byron Lighthouse, Trial Bay Gaol and the convict-built St Thomas’ Anglican Church in Port Macquarie. Over 70,000 hectares of Crown reserves has been set aside on behalf of the community for a wide range of public purposes.

Environmental features and heritage values define the distinctive character and lifestyles of the North Coast, and they underpin the tourism sector that attracts 11 million visitors each year and an agricultural sector that generates around $840 million. Protecting these environmental values will keep the North Coast a great place to live and work.

**ACTION 1.1.1 Identify and manage areas of high environmental value**

Many of the region’s natural features and environmental values are already protected through existing legislation. Land use planning can assist by indicating locations where high environmental value areas are likely to occur. Strategic planning can assist in protecting these values by identifying and implementing controls to avoid or minimise impacts to these values from the outset.

Locations within the region with high environmental values have been mapped (see Figure 1) using criteria established by the Office of Environment and Heritage.

**DIRECTION 1.1 Protect the environment, and Aboriginal and historic heritage**

The North Coast is one of the most biologically diverse regions in Australia and contains the greatest number of endemic plants and animals of any region in NSW. Fifteen of the region’s reserves have World Heritage status. The World Heritage listed Gondwana Rainforests of Australia include the most extensive areas of subtropical rainforest in the world, large areas of warm temperate rainforest and nearly all of the Antarctic beech cool temperate rainforest.
Groundwater dependent ecosystems and aquatic and marine habitats also have high environmental values. Maps of these areas are available from the Department of Primary Industries.

Identifying natural environment and heritage assets and using an evidence-based approach to planning will allow the region to meet its future housing and employment needs without adversely affecting the environment.

The NSW Government will:

- require councils when they are preparing planning strategies or local environmental plans for new or more intensive development to:
  - identify and implement appropriate planning controls to protect areas of high environmental value; and
  - implement the ‘avoid, minimise, offset’ hierarchy, by striving to avoid and minimise impacts on areas of high environmental value and where impacts cannot be avoided, identify and secure appropriate biodiversity offsets through an offset strategy.

The maps of high environmental value areas will also be used to consider opportunities for biodiversity certification and to inform council planning strategies and local environmental plans, as well as the fish community status and aquatic threatened species distributions, the key fish habitat, and marine protected areas maps from the Department of Primary Industries, Fisheries.

### TABLE 1: NORTH COAST RESERVE SYSTEM

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>SIZE – hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Parks</td>
<td>552,256</td>
</tr>
<tr>
<td>Nature Reserves</td>
<td>101,876</td>
</tr>
<tr>
<td>State Conservation Areas</td>
<td>43,761</td>
</tr>
<tr>
<td>Historic Sites</td>
<td>934</td>
</tr>
<tr>
<td>Regional Parks</td>
<td>442</td>
</tr>
<tr>
<td>Aquatic Reserves &amp; Marine Parks</td>
<td>94,728</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>793,997</strong></td>
</tr>
</tbody>
</table>

Explanatory note: High Environmental Values map

A range of criteria were used to map high environmental values land including:

- existing conservation areas, including national parks and reserves, marine parks, declared wilderness areas, Crown reserves dedicated for environmental protection and conservation, and flora reserves;
- native vegetation of high conservation value, including vegetation types that have been over-cleared or occur within over-cleared landscapes, old growth forests and rainforests;
- threatened ecological communities and key habitats;
- important wetlands, coastal lakes and estuaries; and
- sites of geological significance.

Some areas not identified on the map, including terrestrial and aquatic environments, may still require environmental assessment.

The data used to identify high environmental values in this draft Plan is intended to provide a regional-level overview for the purposes of strategic planning. This data will continue to be updated as new information becomes available. Interested parties should contact relevant agencies, including the Office of Environment and Heritage, Local Land Services and the Department of Primary Industries, for current data and further support.
**ACTION 1.1.2** Identify and map areas of potential high environmental value and Aboriginal and historic heritage in proposed urban and employment land

The Office of Environment and Heritage will review proposed urban and employment land identified in the urban growth area maps, to identify sites highly likely to have significant environmental, and Aboriginal and historic heritage values that may constrain development.

The NSW Government will:
- review proposed urban and employment land in the urban growth areas identified in the draft Plan; and
- prepare maps to identify sites of potentially high environmental value and, where culturally appropriate, areas of Aboriginal or historic heritage in urban growth areas. These maps will also be used to consider opportunities for biodiversity certification and to inform council planning strategies and local environmental plans.

**ACTION 1.1.3** Review and update planning controls and heritage studies to protect Aboriginal and historic heritage assets

Aboriginal and historic heritage items are generally protected by the National Parks and Wildlife Act 1974, the Heritage Act 1977 or council local environmental plans. It is likely that the number of items, particularly Aboriginal items, is under-recorded and documented, and therefore vulnerable to damage or destruction.

When preparing planning strategies or local environmental plans, councils will review or prepare local cultural heritage studies to identify and protect places of Aboriginal and historic heritage significance. This work will be undertaken in consultation with local communities.

Where impacts from new development near heritage items and areas cannot be avoided, proposals that reduce impacts through sympathetic design should be developed in accordance with relevant statutory processes.

The NSW Government will:
- work with councils to review and update their planning controls and heritage studies to identify and protect Aboriginal and historic heritage items and to make sure that appropriate opportunities for the adaptive or sympathetic use of heritage items are promoted and available.

**DIRECTION 1.2** Protect and enhance productive farmland

The North Coast’s rich soils, relatively reliable rainfall and range of landscapes support a diverse and important agricultural sector. This includes over 20 different agricultural industries, including beef and sugar (Far North Coast), bananas, blueberries and fishing (Mid North Coast), and dairy and oyster farming (Lower North Coast). These industries support a range of value-adding industries, such as milk processing, abattoirs, sugar mills and packaging and processing. The NSW Government is committed to ensuring the long-term profitability and sustainability of our forests and forestry industries. The region’s forests provide tourism and recreation activities, habitat and wood products through harvesting, and environmental services such as good water quality, native habitat and connectivity with other forests (such as national parks).
The NSW Government mapped approximately 420,600 hectares of State and regionally significant farmland through the Northern Rivers Farmland Protection Project and Mid North Coast Farmland Mapping Project in 2006 and 2008 respectively. This mapping identifies the region’s important farmland, which is protected from future urban and rural residential development by council controls in planning strategies and local environmental plans. This mapping is shown in Figure 7.

Biophysical Strategic Agricultural Land on the North Coast was also mapped in 2014 as part of the NSW Government’s Strategic Regional Land Use Policy. This land is capable of sustaining high levels of production for a variety of agricultural industries due to its high-quality soil and water resources. More than 248,000 hectares of this land has been mapped on the North Coast. The policy requires that any significant mining or coal seam gas proposals on this land have to be scrutinised through the independent Gateway process, before a development application can be lodged.

Protecting agricultural land has historically been achieved by limiting rural land subdivision. Councils will need to apply minimum subdivision standards for rural zones to limit rural land fragmentation. They will also need to apply provisions to limit dwellings in rural zones that are not associated with agriculture, or outside of rural residential areas, to avoid potential land use conflicts with agricultural activities.

Niche agriculture, such as horticulture, is common on smaller holdings throughout the North Coast. Identifying suitable areas for smaller agricultural holdings can minimise conflict between land uses. Councils should investigate mechanisms to support this type of agriculture, while preventing widespread fragmentation in the rural zone.

Councils that permit secondary dwellings or detached dual occupancies in their rural areas should consider, at the development application stage, possible land use conflicts, and the potential impacts on local agricultural activities.

The NSW Government will also implement the Agriculture Industry Action Plan (2014) prepared by the Department of Primary Industries to drive growth in the sector across the State.

**ACTION 1.2.1 Investigate complementary activities in rural zones**

The NSW Government supports the development of farms that can adapt to changing agricultural trends and practices, while also accommodating agitourism, and processing, packaging and associated retail services.

Some councils permit with consent, a number of non-agricultural core activities, such as niche commercial, tourist and recreation activities, in primary production areas. These include:

- animal boarding and training establishments;
- bed and breakfast and farm stay accommodation;
- camping grounds and recreation areas;
- cellar door premises and roadside stalls;
- eco-tourism facilities;
- restaurants and cafes; and
- nurseries.

These activities will promote a stronger agricultural sector by building greater economic diversity within farm businesses, and providing greater resilience and capacity to adapt to changing circumstances.

The NSW Government will:

- work with councils to investigate appropriate complementary activities in rural zones that promote the development of a stronger agricultural sector and will not adversely affect agricultural activities.

**ACTION 1.2.2 Increase the region’s biosecurity through the use of buffers and land use conflict risk assessment**

Improving biosecurity is important to protect the economy, environment and community from the negative impacts of animal and plant, pests, diseases and weeds. Biosecurity issues can occur when extending the interface between urban and rural areas, increasing the risk of animal and plant pests and diseases affecting food production, the environment (particularly wildlife) and human health.
These land use conflicts can often be avoided by applying buffers to separate different land uses, for example, through distance, vegetation or topography.

The NSW Government will:

- work with councils to identify opportunities to minimise biosecurity risks for current and future industries through biosecurity plans, and strategic planning, including the review of zones in local plans;
- promote the application of buffer areas to minimise biosecurity risks when assessing the potential impacts of new development; and

**ACTION 1.2.3 Review the Northern Rivers and Mid North Coast farmland mapping projects**

A review of the consistency, methodology and application of the Northern Rivers Farmland Protection Project and Mid North Coast Farmland Mapping Project will provide an opportunity to:

- finalise the current interim farmland mapping for the Greater Taree area; and
- establish consistent standards and application for regionally significant farmland across the North Coast.

The NSW Government will:

- review the Northern Rivers Farmland Protection Project and Mid North Coast Farmland Mapping Project to deliver appropriate management of regionally significant farmland across the region.

**ACTION 1.2.4 Adopt State and regionally significant farmland interim variation criteria**

The NSW Government recognises that some small pockets of State and regionally significant mapped farmland may be more suited to other land uses. Pending finalisation of the farmland mapping review (discussed above), this draft Plan establishes interim significant farmland variation criteria. When councils are preparing planning strategies or local environmental plans they can use these criteria to assess suitability of the land for continued rural land use.

The NSW Government will:

- allow councils to make a minor variation to the mapped farmland boundary, where State or regionally significant farmland is unlikely to contribute significantly to future agricultural production.

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**Biosecurity**

Biosecurity means protecting the economy, environment and community from the negative impacts of pests, diseases and weeds. The Department of Primary Industries has developed the Biosecurity Strategy 2013-2021. The strategy identifies a number of outcomes for implementation to better manage the risks of pests, diseases and weeds entering, establishing and spreading in Australia, including the following:

- review existing NSW legislation, taking into consideration legislation in other jurisdictions;
- support the development of best practice guidelines; and
- develop clear guidelines outlining the roles and responsibilities of stakeholders in biosecurity management.
State and Regionally Significant Farmland Interim Variation Criteria

Land may be suitable for uses other than farmland if:

**AGRICULTURAL CAPABILITY**
- the land is isolated from other important farmland and is not capable of supporting sustainable agricultural production;

**LAND USE CONFLICT**
- the land use does not increase the likelihood of conflict and does not impact on current or future agricultural activities in the locality;*

**INFRASTRUCTURE**
- the provision of infrastructure (utilities, transport, open space, communications and stormwater) required to service the land is physically and economically feasible at no cost to State and Local Government. Adverse impacts on adjoining farmland must be avoided;

**ENVIRONMENT AND HERITAGE**
- the proposed land uses do not have an adverse impact on areas of high environmental value, and Aboriginal or historic heritage significance; and

**AVOIDING RISK**
- risks associated with physically constrained land are avoided and identified, including:
  - flood prone;
  - bushfire prone;
  - highly erodible;
  - severe slope; and
  - acid sulfate soils.

* An evaluation may be required in accordance with the NSW Department of Primary Industry Land Use Conflict Risk Assessment Guide (2011).
DIRECTION 1.3 Safeguard aquatic habitats and water catchments

The region’s aquatic habitats and water catchments contribute to the character of the North Coast; support urban and economic growth; offer significant aquaculture, commercial and recreational fishing opportunities; and are a major tourist attraction.

Aquaculture relies on high-quality fresh water catchments, along with estuarine and marine waters. Protecting the aquaculture environment from activities that affect water quality is crucial to the long term future of the industry. New development will be appropriately located to minimise impacts, including downstream impacts, on fish and aquaculture, commercial and recreational fishing habitats (waterways, wetlands and tidal lands). The NSW Government has several strategies to protect aquatic resources. Councils should consider the following strategies when developing local planning strategies and local environmental plans:

- **Policy and Guidelines for Fish Habitat Conservation and Management (2013)** provides guidance and helps manage and protect important marine resources;

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**Case study: Kempsey**

Kempsey Shire Council has identified a possible rural residential expansion area at Kundabung in its 2014 *Rural Residential Land Release Strategy*. This area contains two small and isolated corridors of regionally significant farmland, shown in yellow on the map. These corridors will eventually be surrounded by rural residential development (shown in green) and could be serviced effectively and efficiently by adjoining infrastructure as the surrounding land is developed.

Retention of these lands for agricultural purposes would not serve an economic or agricultural benefit and would miss the opportunity to take advantage of any adjoining infrastructure.

Current policy would prevent this outcome as the regionally significant farmland has been excluded from the rural residential release area. The new interim policy would allow Kempsey Shire Council to consider varying this mapped farmland by applying the criteria.
The North Coast has a number of important aquatic environments, water catchments and groundwater aquifers that support its urban areas, agriculture, environment, economy and lifestyle. Protecting water quality, managing access to water supplies, and avoiding activities that interrupt natural ecological processes are essential for the health of the region’s marine environments, water catchments and to support continued population and economic growth.

Ballina, Byron, Lismore, Richmond Valley, Clarence Valley, Coffs Harbour and Tweed Councils have already included planning provisions in their local environmental plans to avoid or mitigate potential impacts on drinking water catchments from developments. Any development should have a neutral or beneficial effect on the region’s water quality.

The NSW Government will:

- work with councils to apply appropriate planning provisions in local environmental plans to protect marine environments, water catchment areas and groundwater sources from potential development impacts.

**ACTION 1.3.2 Finalise water sharing plans for rivers and groundwater systems on the North Coast**

The NSW Department of Primary Industries is developing water sharing plans that form the basis for sharing and allocating water in NSW. They establish rules for sharing water between the environmental needs of the river or aquifer and water users, and also between different types of water use such as town supply, rural domestic supply, stock watering, industry and irrigation.

These plans are being progressively developed for rivers and groundwater systems on the North Coast. The Tweed, Richmond and Coffs whole-of-catchment water sharing plans are already in use and a number of other plans are being prepared. These plans will set rules to regulate the extraction of surface water and groundwater, as well as the use of water. The plans provide increased opportunities to trade water through separation of land and water and will give security to licence holders through the application of equitable conditions and clear access rules.

The NSW Government will:

- finalise and continue to update water sharing plans for rivers and groundwater systems on the North Coast.

**ACTION 1.3.3 Investigate opportunities to integrate the marine estate and adjacent coastal land uses**

The Marine Estate Management Act 2014 provides for strategic and integrated management of the whole marine estate – marine waters, coasts and estuaries. The NSW Government will improve the coordination of marine and coastal (land-based) activities to minimise potential impacts that may influence natural systems along the coast.

The NSW Government will:

- prepare a Marine Estate Strategy for NSW in partnership with key stakeholders to respond to the outcomes of threat and risk assessments for the Manning Shelf bioregion. This will consider the marine estate, including its social, economic and ecological values, and will determine the management priorities for the estate; and
- develop regional boating plans to improve boating safety, boat storage and waterway access on major waterways.
DIRECTION 1.4 Adapt for natural hazards and climate change

The North Coast is prone to natural hazards, including bushfires, coastal erosion, rising sea levels, storms, floods, acid sulfate soils and landslips (see Figure 5). Climate change may worsen many of these hazards. The 2014 North Coast Climate Change Snapshot estimates climate change will raise maximum temperatures on the North Coast by 0.7 degrees by 2030 and by 1.9 degrees by 2070. This is projected to increase the number of severe fire weather days in spring and summer, decrease rainfall in winter, and increase rainfall in spring and autumn.

Built-up areas, infrastructure, and environmental and cultural assets along the coast may be at risk from storms, sea level rise, coastal erosion and inundation. Residential and commercial property and services may also be at risk. A number of councils are preparing coastal zone management plans and associated controls to deal with current and potential erosion issues on the North Coast.

Land use planning can be an effective management tool in minimising or avoiding the impact of natural hazards. Land that is prone to hazards should not be developed unless the hazards can be managed appropriately. Local environmental plans, development control plans and council planning strategies can integrate adaptation to climate change in a number of ways, including:

- providing flexible controls that allow for innovation in farming practices and new emerging industries as a result of climate change;
- creating more liveable conditions in more extreme weather events by developing building standards and urban design approaches that create resilient

FIGURE 5: NUMBER OF NATURAL DISASTER DECLARATIONS FROM 2004-05 TO 2013-14

<table>
<thead>
<tr>
<th>Council</th>
<th>Floods/Storms</th>
<th>Bushfires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweed</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Byron</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Ballina</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Lismore</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Richmond Valley</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Kyogle</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Clarence Valley</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Coffs Harbour</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Bellingen</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Nambucca</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Kempsey</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Port Macquarie - Hastings</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Greater Taree</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Ministry of Police and Emergency Services.
environments for the future such as thermal efficient building design and creating greenways; and

- introducing policies that permit large-scale renewable energy projects.

It is important that natural hazard planning responds to the changing climate to minimise risks.


Some developments (such as aged care facilities) can be sensitive to natural hazard events due to the difficulty of evacuation in an emergency. Local environmental plans will include appropriate controls for areas subject to natural hazard events to reflect the risks and limitations of the land. Port Macquarie–Hastings, Clarence Valley, Byron and Tweed Councils have already included provisions in their local environmental plans that require a consent authority to be satisfied that certain sensitive developments can be safely occupied or evacuated in a major flood event.

**ACTION 1.4.1 Build on regional understanding of projected climate impacts and implement opportunities to respond**

In 2014, the NSW Government undertook an Integrated Regional Vulnerability Assessment on the North Coast that identified regional climate change vulnerabilities and potential actions to respond. This process has provided an evidence-base to enable State and Local Governments to incorporate climate change considerations into service planning and delivery.

The impacts of rising sea levels and climate change will be critical to managing the coastal zone and floodplain risk. For example, saltmarsh and mangrove habitats may move landward with sea-level rise. Planning and natural resource management authorities will need to consider mapping and modelling the impacts of sea-level rise, storm surge and inundation to provide adequate buffers for landward migration, protection of coastal saline wetlands, and to limit development in areas adjoining these wetlands.

The NSW Government will:

- continue to support regional decision-makers to address climate change vulnerabilities and minimise impacts on local communities by implementing the findings of the North Coast Integrated Regional Vulnerability Assessment;

- implement the Coastal Reform Program (see over);

- take a consistent and coordinated approach to plan and manage hazards by:
  - consolidating information and making this publicly available through the Department of Planning and Environment’s Planning Portal and the Office of Environment and Heritage’s Adapt NSW website; and
  - supporting joint council investigations into managing the threat of natural hazards in the region;

- work with councils to:
  - develop strategic plans, risk management plans and emergency management actions, including appropriate controls in local environmental plans to minimise the potential impacts of hazards, consistent with:
    - the NSW Floodplain Development Manual;
    - Planning for Bush Fire Protection 2006; and
    - all other relevant State and regional policies, strategies and plans;

  - map all vulnerable areas and hazards;

  - prioritise investigations into how hazard mitigation infrastructure may be improved; and

  - integrate planning for emergency response infrastructure to support the above.
Coastal Reform Process

The NSW Government is responding to community concerns about coastal hazards through a coastal reform process. The reforms include:

**NEW COASTAL MANAGEMENT ACT**

The NSW Government aims to replace the *Coastal Protection Act 1979* with a new act that is less complex and a better fit with land use planning and local government legislation. The new act will establish requirements for State, regional and local land use planning instruments. It will require councils to undertake coastal zone management planning within the local government Integrated Planning and Reporting Framework.

**IMPROVING SUPPORT TO COUNCILS**

The coastal reform package is focused on improving the way NSW Government supports council decision-making. The NSW Government will work in partnership with councils to co-design a new coastal management manual. The manual will provide a single, consolidated source of tools for coastal management, to meet local circumstances.

**SUSTAINABLE FUNDING AND FINANCING ARRANGEMENTS**

The reform package identifies more sustainable funding and financing arrangements for coastal management strategies. They will be based on a set of cost-sharing principles to fairly and transparently identify who benefits from proposed coastal management actions and who should contribute to the costs. To support the new approach, the Office of Environment and Heritage will review various funding and financing mechanisms for use by councils.

**DIRECTION 1.5 Deliver economic growth through sustainable use of, and access to, mineral and energy resources**

The region’s natural resources have the potential to drive regional economic development and prosperity. They include traditional and renewable energy sources and a broad range of mineral resources and construction materials. These mineral resources include hard rock aggregate, clay, sand and coarse aggregate. The development of these resources is necessary to support major infrastructure projects, the new housing needed for a growing population, and industrial and agricultural businesses. The extraction of these resources generates employment in the region. Local extraction of these resources is particularly important as transporting these bulky materials can be relatively expensive.

The North Coast also includes areas of the Clarence-Moreton Basin, which has potential coal seam gas resources that may be able to support the development and growth of new industries and provide economic benefits for the region.

The NSW Government released the *NSW Gas Plan* in November 2014, which established a clear strategic framework to deliver world’s-best-practice standards and regulation for the coal seam gas industry. The plan adopted all of the recommendations in the final report of the...
Independent Review of Coal Seam Gas Activities in NSW, undertaken by the NSW Chief Scientist in 2014. Coal seam gas exclusion zones apply within 2 kilometres of residential areas; identified future residential growth areas, and certain areas that meet ‘village criteria’.

The region also has a number of potential sources of alternative or renewable energy - including solar, bio-waste and wave power – which could contribute to electricity generation, reduce the region’s carbon footprint and create new economic opportunities and industries.

The existing electricity market and regional electricity infrastructure has the capacity to support and grow the renewable energy sector in the region. The NSW Government’s Renewable Energy Action Plan, released in September 2013, guides renewable energy development in the State and supports the national target of 20 per cent renewable energy by 2020.

Explanatory note: Areas where Exploration Titles have been bought back by the NSW Government 2011-2016 map

Figure 6 shows where exploration titles have been bought back by the NSW Government, following the release of the NSW Gas Plan in 2014.

The data shown on this map draws on information relating to existing title approvals and is correct at January 2016. The data does not indicate the nature, timing or location of specific mining activities. Further information about recent or current development applications for mining projects in specific locations can be found on the Department of Planning and Environment’s Major Projects website at: http://majorprojects.planning.nsw.gov.au/. 

Left: Rock crushing operation, Pacific Highway upgrade
Right: Electricity network, AusGrid
Figure 6: Areas where exploration titles have been bought back by the NSW Government 2011-2016

Disclaimer:
Exploration titles show where applications can be made for mining activities. They do not infer a right to mine.

Mining is excluded in National Parks and Historic Sites.
The upgrade of the Pacific Highway from Woolgoolga to Ballina alone is expected to require:

- 1.2 million tonnes of road base
- 800,000 tonnes of sand
- 1.4 million tonnes of aggregate
- 600,000 tonnes of earthworks material

4 million tonnes of materials in total will be needed from local quarries.

**ACTION 1.5.1 Facilitate investment in the resources and energy sector**

Improving information available on the location, value and attributes of resources can support expansion of the sector. The NSW Government’s *Mineral Resource Audit* has been used to show the known potential mineral resource sites on the North Coast (see Figure 7).

Transition areas surround identified resource areas and were formerly referred to as buffer or separation zones. They are areas that may be affected by activities associated with resource extraction and are identified to minimise the potential for encroachment and land use conflict.

These resource sites need to be protected from encroachment and land use conflict as they will underpin growth and infrastructure delivery in the region. Mining and energy production have specific operational needs based on the productive life of the facility or resource. This provides opportunities for sequential or staged land uses that maximise the productive use of the land over time. An important element of this is promoting the early development of long-term landscape goals for the area.

Councils should consider the *Mineral Resource Audit* and the Department of Industry’s exploration and mining activity maps (including Common Ground) when assessing applications for land use changes.

The NSW Department of Industry is mapping coal and coal seam gas resources in the region. Once completed, this information will inform future regional and local planning by providing updated information on the location of resources.

The NSW Government will:

- maintain the best available geoscience information related to the resources and energy sectors in NSW and transparently monitor development activity. Up to date mapping is available on the geoscientific data warehouse and Common Ground website, which is maintained by Division of Resources and Energy;
- identify and plan for the infrastructure needs and requirements of the resources and energy sector;
- work with councils and industry to implement the integrated mining policy, including finalising the economic assessment guidelines;
- plan for landscapes to support other uses and new economic opportunities; and
- develop analytical tools to identify and map renewable energy potential, including wind, large-scale solar, bioenergy and geothermal, building on existing information such as the Australian Government’s *Renewable Energy Mapping Infrastructure*. 

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**Disclaimer:**

Exploration titles show where applications can be made for mining activities. They do not infer a right to mine.

Mining is excluded in National Parks and Historic Sites.
FIGURE 7: NORTH COAST RESOURCES AND FARMLAND