



Hunter & Central Coast  
Regional Environmental  
Management Strategy

Hunter, Central Coast and Lower North Coast of New South Wales

# Benefiting from bioversity

An investment guide for local government



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# Which section of this guide is right for me?

Find out why investing in biodiversity is good for your Council.

**Go to section 1**  
BENEFITING FROM BIODIVERSITY

Council owns or manages land and wants to supplement its income from the natural assets on that land whilst also maintaining biodiversity values.

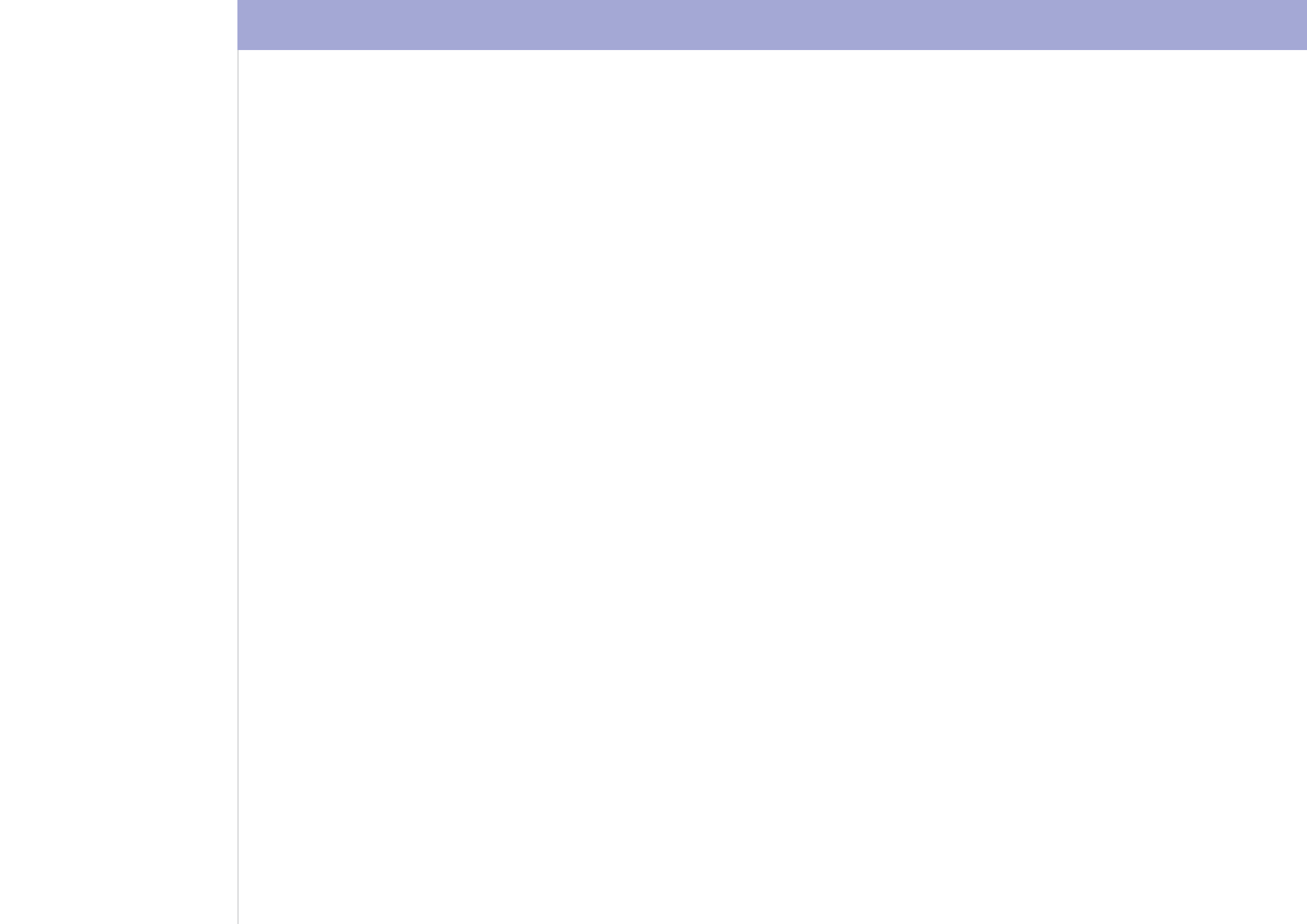
**Go to section 2**  
INCOME-SUPPLEMENTATION OPPORTUNITIES

Council owns or manages land and wants support to maintain biodiversity on that land.

**Go to section 3**  
GRANT PROGRAMS

Council owns or manages land and wants to generate an income from the natural assets on that land whilst also maintaining biodiversity values.

**Go to section 4**  
COMMERCIAL OPPORTUNITIES



# 1. Benefiting from biodiversity

## Funding natural asset management on council lands

Local government cares for and controls a large proportion of the land in the Hunter, Central Coast and Lower North Coast region of New South Wales. Much of this land contains a wide range of natural assets with important biodiversity values: stands of native vegetation, habitats for native fauna, and riverine corridors that connect ecosystems and plant and animal communities. Making the most of this type of land comes with many challenges, not just the expense of its management and maintenance, but also in meeting the range of legislative obligations and constraints that apply.

This publication provides a guide to the opportunities available to councils managing land with biodiversity values. These opportunities are grouped into three types:

**1. Commercial activities** that offer the potential for councils to generate ongoing financial returns on an investment whilst also maintaining biodiversity values on site.

**2. Income-supplementation activities**

that offer ways to supplement a council's income (either financially or through in-kind assistance) whilst also maintaining biodiversity values on site.

**3. Support programs** which offer ways for a council to maintain biodiversity values on site without incurring significant expense.

*Benefiting from biodiversity* has been created to help you navigate the policies and programs that are available to local government land managers. Understanding these policies and programs is important if you are to maximise your biodiversity asset.

*Benefiting from biodiversity* also covers the range of technical support and resources available to councils and land managers for conservation and management efforts on their lands. Importantly, it summarises the answers to key questions a land manager might ask:

- What financial return is potentially available from the natural assets on the land I manage?
- What types of activities qualify for support?
- What land types and land values qualify for support?
- What amount of effort is needed for the amount of return?
- Who can I contact, and resources exist, if I want explore a proposal further?

As with any publication dealing with investment and financial commitments, it is important that you understand its limits. At the time of publication (mid 2015) the NSW Minister for the Environment has appointed an independent panel to undertake a comprehensive review of the *Native Vegetation Act 2003*, *Threatened Species Conservation Act 1995* and related biodiversity legislation. It is expected that significant changes to these legislative instruments will occur following the completion of the review.

## Biodiversity: the key to everything

**B**enefiting from biodiversity is not a prospectus or investment guide in the traditional sense. Rather, it focuses on the ways in which Councils and asset managers can maximise the natural assets under their control in order to maintain and enhance biodiversity values whilst at the same time generating an income or receiving financial or in-kind support for this important work.

So what are these biodiversity values?

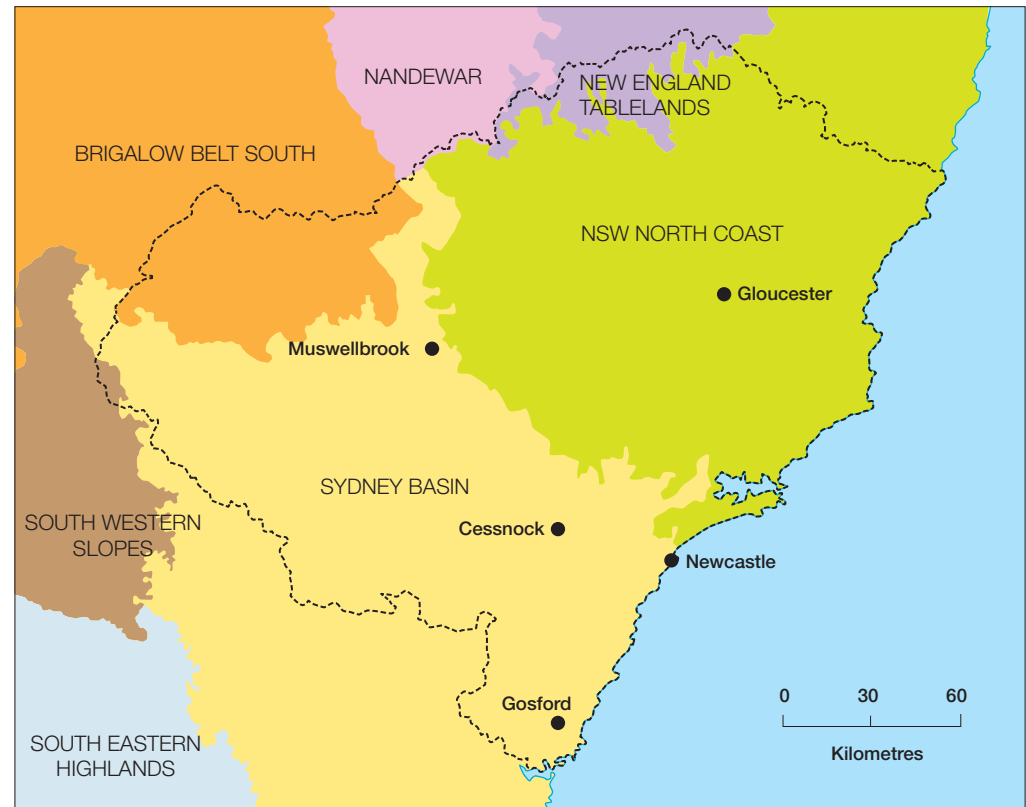
Biodiversity is the variety of life and its interactions. It includes plants, animals, fungi and micro-organisms, the genetic information they contain, and the ecosystems that they form in terrestrial, marine or aquatic environments. In short, biodiversity is life on Earth. Biodiversity offers many essential 'ecosystem services': the pollination of crops; the provision of medicines, food and clothing; and the support systems we need to sustain human life. Biodiversity also contributes to the fulfilment of people's cultural, spiritual, and intellectual needs.

To understand biodiversity at a local level, it's useful to think of it as being characterised by 'bioregions' – the broad biophysical features that link flora and fauna assemblages and processes. These bioregions are a way of simplifying and describing complex biological patterns and interactions. The Hunter, Central and Lower North Coast of NSW straddles five bioregions, the:

- NSW North Coast
- Sydney Basin
- Brigalow Belt South
- New England Tablelands
- South Western Slopes.

The conservation of our biodiversity and ecosystems is, therefore, vital as they underpin human prosperity. However, the dependence is mutual as some level of

prosperity is required to enable biodiversity protection and the maintenance of ecosystems services in the face of human wants and needs. From climate regulation and pollination services to dependencies on ecosystems for food, materials for construction, and cultural or spiritual fulfillment, human prosperity is indivisible from the fate of the natural world.



**The vast majority of the Hunter, Central and Lower North Coast region occurs within three bioregions: the North Coast (50%), the Sydney Basin (39%), and to a lesser extent the Brigalow Belt South (10%).**



The Australian and NSW governments have recognised the need to protect biodiversity and have enacted a number of legislative mechanisms to enshrine a regulatory process to assess losses of biodiversity and to provide incentives to conserve biodiversity.

The natural environment of our region (the beaches and bays, lakes and rivers, mountain ranges, rainforests, and fertile rural landscapes) is a key reason why people decide to live here, and why our tourism industry is so strong. We cannot take for granted that the environmental values we enjoy today will always be here without actively working to ensure this is the case. Strategic investment in biodiversity conservation will ensure we leave an enduring legacy for future generations.

For more information on biodiversity in the Hunter, Central Coast and Lower North Coast region, see the back of this publication.

We cannot assume that national parks can provide the necessary protection for our biodiversity as only 20% of the Hunter landscape is included in the reserve system. The vast majority of the Hunter region is under private ownership, and therefore the responsibility for conservation falls to landowners and businesses.



## How to identify biodiversity/bushland values on private property

Understanding the type of bushland and habitat values present on council property will assist you to identify which investment opportunities best suits your needs.

The following table poses a series of questions to help you assess the extent of biodiversity values you present on the

property, and the management activities and threats that may impact on these values. Keep the answers to these questions in your mind as you read this guide so you can easily identify which of the investment opportunities is suitable to you.

**PLEASE NOTE:** Even if you think there is little current biodiversity value due to past or current management activities, there are a number of investment opportunities that will assist you to generate biodiversity values, so there is value in reviewing the entire guide.

Biodiversity attribute	What is important to know about this attribute on my property?	Where to go for more information or assistance with answering these questions
<b>Vegetation</b>	<ol style="list-style-type: none"> <li>1. Is there native vegetation present on the land (canopy trees, shrubs, grasses, ferns grasses, shrubs, trees, etc.)</li> <li>2. Is the vegetation in a large continuous patch, a number of smaller patches, or a single small patch?</li> <li>3. How large are the vegetation patches (less than 1 ha, less than 10 ha, greater than 10 ha)?</li> <li>4. Are the vegetation patches continuous native vegetation containing different types of – tree species, shrubs, ferns, grasses and wildflowers, ground layer of leaves, twigs and branches, soil moss and lichen?</li> <li>5. Are the vegetation patches close enough together to be connected through natural generation or restoration planting?</li> <li>6. Are the vegetation patches impacted by environmental disturbances including weed invasion, grazing, fire, pest animal species?</li> <li>7. Are there isolated trees throughout the property (in the production area not covered by large patches of native vegetation)?</li> <li>8. Is there evidence of natural regeneration (e.g. seedlings of trees and shrubs)?</li> <li>9. Are there Myrtaceous Plants present (oil-bearing for essential oils)?</li> <li>10. Are there any native bush foods present (typically herbs and seeds)?</li> </ol>	<p><b>Hunter Local Land Services:</b> <a href="http://hunter.lis.nsw.gov.au/">http://hunter.lis.nsw.gov.au/</a></p> <p><b>Office of Environment &amp; Heritage:</b> <a href="http://www.environment.nsw.gov.au/contact/">http://www.environment.nsw.gov.au/contact/</a></p> <p><b>The Atlas of Living Australia:</b> <a href="http://www.ala.org.au/">http://www.ala.org.au/</a></p> <p><b>Your local council</b></p> <p><b>Australian Native Plant Society:</b> <a href="http://www.anpsa.org.au">www.anpsa.org.au</a></p> <p><b>Hunter Region Botanic Gardens:</b> <a href="http://www.huntergardens.org.au">www.huntergardens.org.au</a></p> <p><b>Australasian Native Orchid Society:</b> <a href="http://www.anos.org.au">www.anos.org.au</a></p> <p><b>Hunter Wetlands Centre:</b> <a href="http://www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx">www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx</a></p>



Biodiversity attribute	What is important to know about this attribute on my property?	Where to go for more information or assistance with answering these questions
<b>Fauna</b>	<ol style="list-style-type: none"> <li>Does the property support a variety of fauna species such as birds, ground dwelling animals, tree dwelling animals, reptiles?</li> <li>Have you seen the presence of animals, but not actually seen the animal (scats, scratches, nests, wallows, etc.)?</li> </ol>	<p><b>Hunter Local Land Services:</b> <a href="http://hunter.lls.nsw.gov.au/">http://hunter.lls.nsw.gov.au/</a>  <b>Office of Environment &amp; Heritage:</b> <a href="http://www.environment.nsw.gov.au/contact/">http://www.environment.nsw.gov.au/contact/</a>  <b>The Atlas of Living Australia:</b> <a href="http://www.ala.org.au/">http://www.ala.org.au/</a>  <b>BirdLife Australia:</b> <a href="http://www.birdlife.org.au">www.birdlife.org.au</a>  <b>Hunter Bird Observers Club:</b> <a href="http://www.hboc.org.au">www.hboc.org.au</a>  <b>Hunter Wetlands Centre:</b> <a href="http://www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx">www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx</a></p>
<b>Threatened flora and fauna</b>	<ol style="list-style-type: none"> <li>Are there any threatened plant species on your property?</li> <li>Are there any threatened animal species on your property?</li> <li>Does the property support any migratory species?</li> </ol>	<p><b>Office of Environment &amp; Heritage:</b> <a href="http://www.environment.nsw.gov.au/contact/">http://www.environment.nsw.gov.au/contact/</a>  <b>The Atlas of Living Australia:</b> <a href="http://www.ala.org.au/">http://www.ala.org.au/</a>  <b>Your local council</b>  <b>Australian Native Plant Society:</b> <a href="http://www.anpsa.org.au">www.anpsa.org.au</a>  <b>Hunter Region Botanic Gardens:</b> <a href="http://www.huntergardens.org.au">www.huntergardens.org.au</a>  <b>Australasian Native Orchid Society:</b> <a href="http://www.anos.org.au">www.anos.org.au</a>  <b>Hunter Wetlands Centre:</b> <a href="http://www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx">www.wetlands.org.au/page4906/Ecology-at-HWCA.aspx</a></p>
<b>Habitat</b>	<p>Does the property have any of the following:</p> <ol style="list-style-type: none"> <li>tree hollows</li> <li>hollow logs</li> <li>rocky areas</li> <li>highly fertile soils</li> <li>native mistletoes</li> <li>flowering plants producing nectar</li> <li>different vegetation types e.g. rainforest, open woodland, hanging swamps?</li> </ol> <p>Is the property adjacent to other patches of vegetation or national parks or state forests?</p>	<p><b>Hunter Local Land Services:</b> <a href="http://hunter.lls.nsw.gov.au/">http://hunter.lls.nsw.gov.au/</a>  <b>Office of Environment &amp; Heritage:</b> <a href="http://www.environment.nsw.gov.au/contact/">http://www.environment.nsw.gov.au/contact/</a>  <b>The Atlas of Living Australia:</b> <a href="http://www.ala.org.au/">http://www.ala.org.au/</a>  <b>Your local council</b></p>
<b>Heritage issues</b>	<p>Does the property have any of the following features:</p> <ol style="list-style-type: none"> <li>World Heritage areas</li> <li>National Heritage areas</li> <li>cultural heritage sites (Aboriginal or European)?</li> </ol>	<p><b>World Heritage Listing:</b> <a href="http://www.environment.nsw.gov.au/parktypes/WorldHeritageListedAreas.htm">http://www.environment.nsw.gov.au/parktypes/WorldHeritageListedAreas.htm</a>  <b>National Heritage Listing:</b> <a href="http://www.environment.nsw.gov.au/parktypes/NationalHeritage.htm">http://www.environment.nsw.gov.au/parktypes/NationalHeritage.htm</a>  <b>Aboriginal Heritage Information Management System:</b> <a href="http://www.environment.nsw.gov.au/licences/AboriginalHeritageInformationManagementSystem.htm">http://www.environment.nsw.gov.au/licences/AboriginalHeritageInformationManagementSystem.htm</a></p>

## 1. BENEFITING FROM BIODIVERSITY

Biodiversity attribute	What is important to know about this attribute on my property?	Where to go for more information or assistance with answering these questions
<b>Waterways</b>	<ol style="list-style-type: none"> <li>1. Are there any waterways present on the property (creeks, streams, rivers, swamps, wetlands, dams)?</li> <li>2. Are there any ephemeral waterways present during high rain events?</li> </ol>	
<b>Landscape features</b>	<p>Does the property have any of the following features:</p> <ol style="list-style-type: none"> <li>1. alpine environments</li> <li>2. ridgeline or rocky outcrops</li> <li>3. steep slopes</li> <li>4. riparian areas</li> <li>5. wetlands</li> <li>6. caves</li> <li>7. sand dunes?</li> </ol>	
<b>Threats / disturbances</b>	<p>Does the property suffer from any of the following threats:</p> <ol style="list-style-type: none"> <li>1. noxious or environmental weeds</li> <li>2. feral animals</li> <li>3. fire</li> <li>4. erosion/sedimentation</li> <li>5. bank erosion</li> <li>6. salinity</li> <li>7. tree dieback?</li> </ol>	

For further assistance in quantifying and understanding the biodiversity values of the land in question, it is recommended you contact Hunter Local Land Services and / or the Office of Environment & Heritage in Newcastle to access information on your locality or to arrange a site inspection.

### HUNTER LOCAL LAND SERVICES

Address: 816 Tocal Road, Paterson 2421

Phone: (02) 4930 1030

Website: <http://hunter.lls.nsw.gov.au/>

### OFFICE OF ENVIRONMENT & HERITAGE

Address: 117 Bull Street,

Newcastle West 2300

Phone: (02) 4908 6800

Website: <http://www.environment.nsw.gov.au/>

This guide outlines three major types of investment:

- 1. Income-supplementation opportunities.** There are a number of mechanisms available that may provide income, or supplement income, for land management or biodiversity conservation activities.
- 2. Support programs.** There are a number of programs available that may not provide direct monetary benefits but may provide access to funding opportunities as well as specialist resources, expert advice and access to information networks.
- 3. Commercial opportunities.** There are a number of opportunities for Asset Managers to attract income through sustainable commercial harvesting of native forest or plant products.

## Local government roles and responsibilities

Although the Hunter, Central and Lower North Coast region of NSW is rich in biodiversity, it is also subject to a wide range of competing land uses and development pressures which are impacting on these natural assets.

Local government is responsible for undertaking, managing, supporting and regulating a wide range of activities designed to protect the local environment and help resolve a number of these competing interests through:

- the design and implementation of land use planning schemes
- the regulation of development activities
- ensuring legislative compliance across a range of council, public and industry activities.
- Natural asset and public land management

Councils are also subject to a number of pieces of legislation that seek to ensure environmental protection, spanning from international treaties to federal and state legislation. Similarly, there are a number of legal mechanisms not specifically

considered as environmental legislation that require consideration and protection of the environment. Understanding this complex web of legislation and competing responsibilities can be difficult. This publication is designed to unpack much of the complexity and identify where Australia's legislative environment actually provides incentives for the protection of our unique biodiversity.

The table below provides a summary of the various legislative mechanisms that apply in the Hunter, Central and Lower North Coast region.

### Australia's biodiversity legislative framework as it relates to biodiversity protection in the Hunter region.

Legislative framework category	Mechanisms
<b>International agreements</b> <ul style="list-style-type: none"> <li>• Provide a foundation for national biodiversity policies and laws</li> </ul>	<ul style="list-style-type: none"> <li>• United Nations Convention on Biological Diversity</li> <li>• United Nations Agenda 21</li> <li>• Convention on Wetlands of International Importance ('Ramsar Convention')</li> <li>• China–Australia Migratory Bird Agreement (CAMBA)</li> <li>• Japan–Australia Migratory Bird Agreement (JAMBA)</li> <li>• Korea–Australia Migratory Bird Agreement (ROKAMBA)</li> <li>• Convention on the Conservation of Migratory Species ('Bonn Convention')</li> <li>• World Heritage Convention</li> <li>• UN Framework Convention on Climate Change</li> </ul>
<b>National policies and strategies</b> <ul style="list-style-type: none"> <li>• Set the national framework for biodiversity conservation and natural resource management</li> <li>• Specify nationally agreed objectives, targets, principles and criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Intergovernmental Agreement on the Environment (1992)</li> <li>• Australia's Biodiversity Conservation Strategy 2010–2030</li> <li>• Australia's Native Vegetation Policy &amp; Framework 2012</li> <li>• National Forest Policy Statement (1992)</li> <li>• Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia (1997)</li> <li>• National Indigenous Forestry Strategy (2005)</li> <li>• National Framework for the Management and Monitoring of Australia's Native Vegetation (2000)</li> <li>• National Objectives and Targets for Biodiversity Conservation 2001–2005 (2001)</li> <li>• National Weeds Strategy (2006)</li> <li>• Indigenous Protected Areas &amp; Aboriginal Places</li> </ul>

## 1. BENEFITING FROM BIODIVERSITY

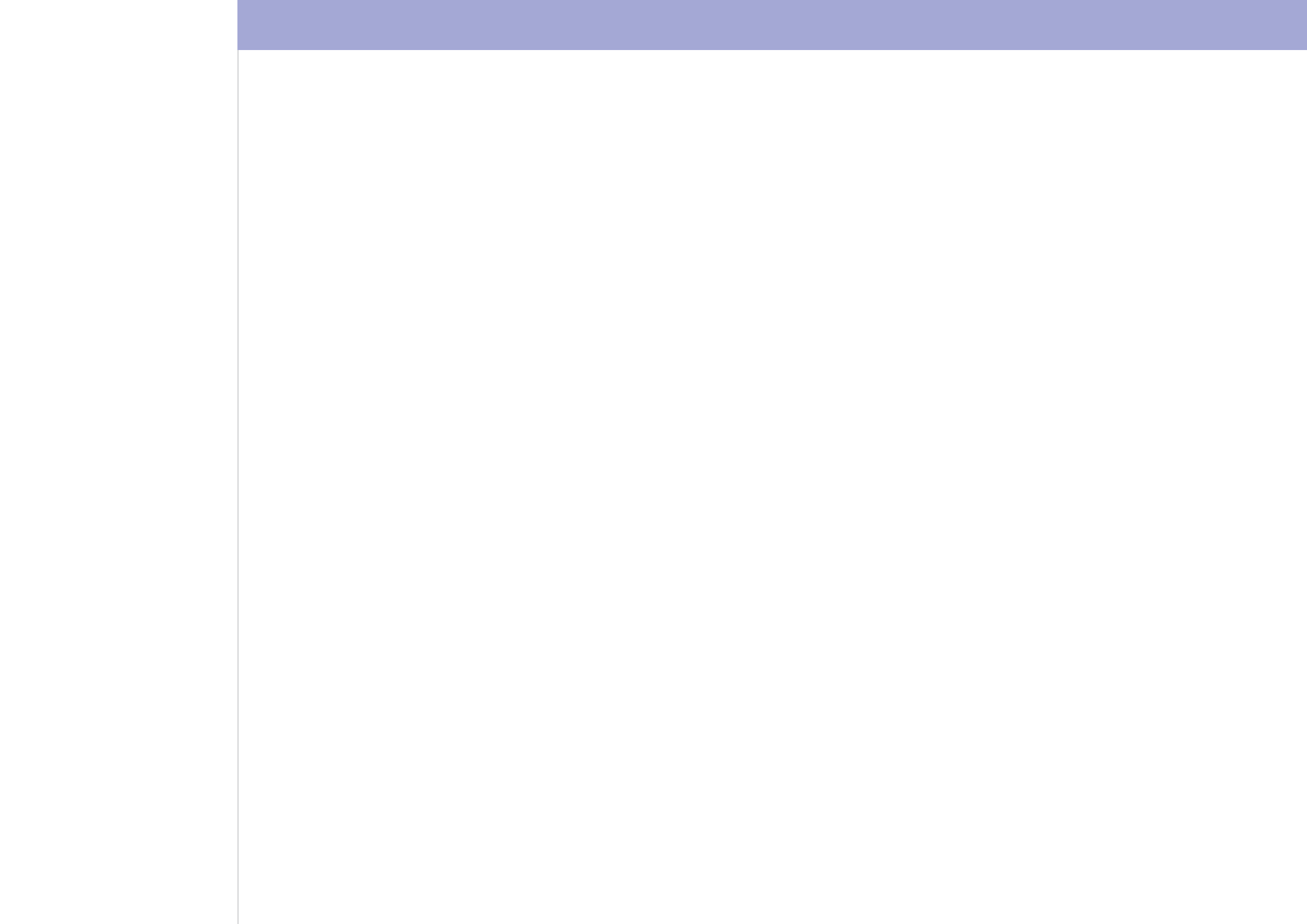
Legislative framework category	Mechanisms
<p><b>State policies and strategies</b></p> <ul style="list-style-type: none"> <li>• Set the framework for biodiversity conservation and natural resource management within NSW</li> </ul>	<ul style="list-style-type: none"> <li>• Draft NSW Biodiversity Strategy 2010-2015</li> <li>• NSW Coastal Policy (1997)</li> <li>• NSW Biodiversity Offsets Policy (2014)</li> </ul>
<p><b>National legislation</b></p> <ul style="list-style-type: none"> <li>• Establishes national processes for biodiversity conservation and environmental impact assessment</li> <li>• Ancillary biodiversity benefits through lands protected for Native Title</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999</i></li> <li>• Environment Protection and Biodiversity Conservation Regulation 2000</li> <li>• <i>Native Title Act 1993</i></li> </ul>
<p><b>State legislation</b></p> <ul style="list-style-type: none"> <li>• Establishes processes for environmental planning, biodiversity conservation and natural resource management within NSW</li> </ul> <p>*Note: the NSW Government commenced a Biodiversity Legislation review in 2014.</p>	<ul style="list-style-type: none"> <li>• Environmental Planning and Assessment Act 1979</li> <li>• <i>Threatened Species Conservation Act 1995*</i></li> <li>• <i>Native Vegetation Act 2003*</i></li> <li>• <i>Local Government Act 1993</i></li> <li>• <i>National Parks and Wildlife Act 1974*</i></li> <li>• <i>Local Land Services Act 2003</i></li> <li>• <i>Noxious Weeds Act 1993</i></li> <li>• <i>Rural Fires Act 1997</i></li> <li>• <i>Water Management Act 2000</i></li> <li>• <i>Conveyancing Act 1919</i></li> <li>• <i>Nature Conservation Trust Act 2001*</i></li> <li>• <i>Coastal Protection Act 1979</i></li> <li>• <i>Contaminated Land Management Act 1997</i></li> <li>• <i>Crown Lands Act 1989</i></li> <li>• <i>Protection of the Environment operations Act 1997</i></li> <li>• <i>Environmental Trust Act 1998</i></li> <li>• <i>Fisheries Management Act 1994</i></li> <li>• <i>Hunter Water Act 1991</i></li> <li>• <i>Mining Act 1992</i></li> <li>• <i>Noxious Weeds Act 1993</i></li> <li>• <i>Soil Conservation Act 1938</i></li> </ul>
<p><b>State Environmental Planning Policies</b></p> <ul style="list-style-type: none"> <li>• Include instruments that regulate development within specialised habitat types</li> </ul>	<ul style="list-style-type: none"> <li>• State Environmental Planning Policy No. 14—Coastal Wetlands</li> <li>• State Environmental Planning Policy No.19—Bushland In Urban Areas</li> <li>• State Environmental Planning Policy No. 26—Littoral Rainforest</li> <li>• State Environmental Planning Policy No. 44—Koala Habitat Protection</li> <li>• Infrastructure State Environment Planning Policy</li> <li>• State Environmental Planning Policy (Rural Lands) 2008</li> </ul>
<p><b>State Guidelines or Management Requirements</b></p> <ul style="list-style-type: none"> <li>• Include guidelines that require approval prior to developments being undertaken</li> </ul>	<ul style="list-style-type: none"> <li>• Guidelines for Developments Adjoining Land and Water managed by the Office of Environment and Heritage</li> </ul>

Legislative framework category	Mechanisms
<b>Regional plans and strategies</b> <ul style="list-style-type: none"> <li>Determine regional directions for urban settlement and natural resource management</li> <li>Should reflect regional biodiversity conservation objectives and priorities</li> </ul>	<ul style="list-style-type: none"> <li>Lower Hunter Regional Conservation Plan (2009)</li> <li>Lower Hunter Regional Strategy 2006–2031</li> <li>Critical Industry Clusters in the Upper Hunter</li> <li>The Upper Hunter Mining Dialogue</li> <li>Hunter LLS Catchment Management Plan</li> <li>Hunter Regional Weeds Strategy</li> <li>Lower Hunter Regional Strategy and Conservation Plan</li> <li>Upper Hunter Coal Mining Strategic Assessment and Conservation Plan</li> </ul>
<b>Local policies and strategies</b> <ul style="list-style-type: none"> <li>Determine local directions for public investment and expenditure, urban settlement and natural resource management</li> <li>Should reflect regional and local biodiversity conservation objectives and priorities</li> </ul>	<ul style="list-style-type: none"> <li>Council management plans (corporate planning)</li> <li>Local biodiversity strategies</li> <li>Local settlement strategies</li> <li>Stormwater management plans</li> <li>Bushfire risk management plans</li> <li>Local weeds strategies</li> <li>Climate change mitigation and adaptation strategies</li> </ul>
<b>Local planning instruments</b> <ul style="list-style-type: none"> <li>Determine the location, design criteria and infrastructure needs of future development</li> <li>Should reflect regional and local biodiversity conservation objectives and priorities</li> </ul>	<ul style="list-style-type: none"> <li>Local environmental plans</li> <li>Development control plans</li> <li>Development consent conditions</li> <li>Contributions plans</li> </ul>
<b>Management plans</b> <ul style="list-style-type: none"> <li>Specify programs of action for managing conservation reserves and individual sites or properties outside of reserves</li> <li>Should reflect regional and local biodiversity conservation objectives and priorities</li> </ul>	<ul style="list-style-type: none"> <li>Plans of management for community land</li> <li>Plans of management for national parks, nature reserves, etc.</li> </ul>
<b>Performance evaluations</b> <ul style="list-style-type: none"> <li>Report on the extent to which the objectives and implementation measures contained in plans have actually been achieved</li> </ul>	<ul style="list-style-type: none"> <li>Local state of the environment reports</li> <li>Management audits for individual sites or properties</li> </ul>

\* **Biodiversity legislation review terms of reference:** The NSW Minister for the Environment has appointed an independent panel to undertake a comprehensive review of the *Native Vegetation Act 2003*, *Threatened Species*

*Conservation Act 1995* and related biodiversity legislation. It is expected significant changes to these legislative instruments will occur following the completion of the review.





## 2. Income-supplementation opportunities

There are a number of mechanisms available to councils that may supplement income for land management or biodiversity conservation activities. In addition, opportunities may exist for councils to encourage the use of any of these mechanisms by private land holders through sympathetic consideration within the local environment plan and zoning systems.

Details on the various opportunities follow.





## Ecosystem and species credit generation and trading

<b>Opportunity</b>	BioBanking.
<b>Mechanism</b>	Ecosystem credit production and trading. Species credit production and trading.
<b>Potential return on investment</b>	Income generated through the sale of credits will offset the non-development of land and pay for the in-perpetuity management of the biodiversity values of the land under the BioBanking agreement.
<b>Land type / classification</b>	Council operational land, council community land, private land.
<b>Property characteristics</b>	BioBanking can occur on any land that has native vegetation present. The best returns come from land that has one or a combination of the seven values that the BioBanking methodology utilises: <ol style="list-style-type: none"> <li>1.state and national biodiversity priorities</li> <li>2.regional value</li> <li>3.landscape Value</li> <li>4.vegetation type and condition</li> <li>5.presence of a threatened species</li> <li>6.nature of management actions</li> <li>7.the area of land (in hectares).</li> </ol>
<b>Facilitating organisation in the region</b>	NSW Office of Environment & Heritage. (See page 18 for details.)

### Investment return from BioBanking

Local councils can voluntarily establish a BioBank site to generate ecosystem and/or species credits for sale on the open market. The establishment of a BioBank site does not necessarily mean that other activities need to stop as a BioBank site can be set up on a *portion* of a land parcel and not impact on different economic activities (such as primary production) continuing on other parts of their land. Councils also have control over who they sell their credits to, the price of their credits, and the timing of the credit sale.

BioBanking provides a secure investment in conservation by providing both the legal and financial mechanisms to ensure the long-term conservation of biodiversity values at BioBank sites. By purchasing credits, buyers are providing the upfront capital needed for the long-term funding of conservation on BioBank sites. These funds are used to manage the site and improve the biodiversity values on that site, and in so doing increase the viability of threatened species populations and improve the quality of habitat and the condition of native plant communities.<sup>1</sup>

<sup>1</sup> Department of Environment & Climate Change, 2007, 'BioBanking: Scheme overview', Sydney.

With the introduction of BioBanking and BioCertification, the NSW Government created Biodiversity Credits and Species Credits. These are commodity credits that have a value and can be traded to fund the biodiversity protection works necessary to protect biodiversity values, as an offset for development, or as an altruistic purchase and retirement of credits.

Under BioBanking, active management of BioBank sites is required through activities such as revegetation, strategic grazing, and control of weeds and feral animals. In return for actively managing their land, BioBank site

owners receive funds for improving the land's biodiversity values.

### Credit Generation

The value of any credits generated through the establishment of a BioBanking site is determined by a site assessment (conducted by an accredited BioBanking assessor). The value of credits is created by the equation at the bottom of this page using the information gathered by the assessor.

As can be seen from the equation, a site that holds a number of high value items (such as threatened species or important habitats) but may not be in the best condition will generate the highest value of credits. Theoretically, the value of the credits should pay for the ongoing maintenance and management activities in perpetuity, but (depending on the market value of specific species or ecosystem credits) there may be the ability for Councils to generate substantial income over and above the revenue needed to implement the required management activities.

It should be noted that the creation of credits does not mean that a council instantly has access to money to undertake the management activities stated in the BioBanking agreement. Once created, the credits must then be placed on the Biodiversity Credit Register and sold prior to any money flowing to a council.

### Credit trading

Anyone is able to buy credits, subject to the regulations. A typical purchaser could be a developer seeking to offset their projects' impacts on biodiversity. Other buyers could be government bodies using the market to achieve conservation outcomes, or philanthropic organisations using the scheme's robust structure to ensure the benefits of their endowments are maintained in perpetuity.

Ultimately, the market will determine the overall price paid for each credit. The landowner and credit purchaser will be free to negotiate any price as long as the Total Fund Deposit is deposited in the BioBanking Trust Fund.

#### NOTE

Councils have an added consideration when determining the value of BioBanking on their lands. Council operational land is treated the same as private land and generates credits as described above. Council community land is considered to have a level of protection already applied by virtue of its designation (i.e. cannot be sold and allows only limited development opportunities) and, as such, any biodiversity credits created on community land will be discounted to account for any 'additionality' in legal responsibilities for conservation activities.

### Cost-benefit analysis

The establishment costs of a BioBank site can be significant as the council must pay for a BioBanking Assessor to assess the site to determine how many and what types of biodiversity credits can be issued. The NSW Government's Office of Environment and Heritage (OEH) also charges a number of fees for establishing and administering a BioBank site. Fees are adjusted for CPI at 1 August each year and are listed on the OEH website. Councils will also incur costs of obtaining financial and legal advice before entering into a BioBanking agreement.

There are also some risks associated with BioBanking:

- **Sale of credits:** the council may be unable to generate a return on their investment if they are unable to sell some or all of the biodiversity credits.
- **Management costs:** if management costs are underestimated, the BioBanking Trust Fund payments will not cover the costs of all management actions. The council will still be required to undertake all management actions under the BioBanking agreement regardless of the amount of the BioBanking Trust Fund payments. There may also be unexpected management costs, such as a new invasive species that is difficult and costly to control.

$$\text{Number of ecosystem/species credits created*} = (\text{Improvement in Site Value} \times \text{Area}) + (\text{Improvement in Landscape Value} \times \text{Area})$$

\*The specific details of formulas and calculations can be found in the BioBanking Methodology from the NSW Office of Environment & Heritage website: <http://www.environment.nsw.gov.au/biobanking/assessmethodology.htm>.



- **Market variability:** if there is a fall in the market price of biodiversity credits due to oversupply or lack of demand, the council may be unable to get an adequate price for their biodiversity credits.
- **Pricing credits:** the price should include the cost of ongoing management actions of the BioBank site (this will be the amount of the Total Fund Deposit), the establishment costs of the BioBank site, opportunity cost and the value of the land. Councils might also want include in the price a profit margin and the possibility of an increase in the costs of future management actions.  
Councils will not receive any payments from the BioBanking Trust Fund unless at least 80% of the Total Fund Deposit has been paid into the BioBanking Trust Fund. If councils have not made enough money from the sale of their biodiversity credits to pay 80% of the Total Fund Deposit then they will only be required to undertake passive management actions but will still have to complete the annual reporting requirements. If all credits have been sold and the 80% threshold has not been met, the council will be required to pay the outstanding amount.
- **Reporting activities:** Councils must prepare an annual report describing the management actions undertaken for the year and provide details of any events that had an impact on the BioBank site, such as bushfire. The annual report must be lodged with OEH with a prescribed fee.
- **Land values:** the value of the land may also be affected, although this is hard to predict and will depend on what buyers in the property market are prepared to pay.

Taxation implications may exist and councils should seek professional advice regarding any implications. The information below broadly discusses the various tax treatments of BioBanking agreements:

- **Goods and services tax:** Three BioBanking transactions involve a goods and services tax (GST) liability for councils who are registered for GST; they are:
  - creation of biodiversity credits on entering into a BioBanking Agreement
  - sale of credits
  - annual payment.

There will also be GST implications for registered councils for other related transactions, such as the acquisition of goods or services when performing management actions. It is important that councils obtain advice from a lawyer or accountant about how the BioBanking agreement will be assessed for taxation purposes.

### Landscape types best suited to BioBanking

BioBanking is governed by the *Threatened Species Conservation Act* and is considered a key tool of the NSW Government to 'maintain and enhance' the state's biodiversity values. As such, the methodology used to determine suitability for BioBanking requires these values to be present for the mechanism to be used.

At least one of the following values must be on site for the mechanism to be available:

- The presence of state or national biodiversity priorities (usually threatened species, but the assessor would be aware of



any specific priorities).

- Native vegetation and vegetation communities; where communities are known to have been cleared by more than 70% of their pre-1750 distribution, the value of credits will increase.
- Moderate quality condition: if condition improvement is possible through management actions then greater value of credits will be generated. High quality sites could still be included as a BioBanking site, but fewer credits will be generated as there are less management activities required to improve the quality of the landscape.
- Presence of threatened species (if not already considered as part of the state and national priorities).

### Complexity of the BioBanking system

BioBanking is a complicated, commercially focused scheme and, as such, councils are encouraged to obtain independent legal advice prior to entering into a BioBanking agreement.

To be eligible to enter into a BioBanking Agreement to establish a BioBanking site a council must pass a character test (the 'fit and proper person test') to determine if they will abide by their obligations under the agreement.

### Council obligations

Council obligations will be set out in the BioBanking Agreement, which outlines the activities that must be undertaken to protect and conserve the biodiversity values of the BioBank site. These are called 'management

actions'. There are two types of management actions under a BioBanking Agreement:

- **Passive management actions** include refraining from conducting activities that will harm biodiversity and native vegetation, such as leaving fallen timber and maintaining low stock levels.
- **Active management actions** are more costly and include removing invasive weeds, controlling feral animals and carrying out fire risk management. Councils are obliged to protect the BioBank site from any environmental damage that reduces the biodiversity values of the BioBank site.

Due to the complexities of assessment and credit calculation, if a council decides to establish a BioBank site they must engage an accredited BioBanking Assessor. The assessor must use the approved BioBanking assessment methodology and the BioBanking credit calculator to assess the land and determine how many and what types of biodiversity credits can be issued. The results of the assessment by the accredited assessor will then inform preparation of one or more management plans.

### Biodiversity credit sales

When a biodiversity credit is sold, part of the sale price must be paid into the BioBanking Trust Fund. The money in the fund is invested and the income generated is used to make scheduled payments to councils to help them meet the costs of maintaining the conservation values of the BioBank site in perpetuity.

### Cancellation of a BioBank Agreement

A council can unilaterally terminate their BioBanking Agreement under the following circumstances:

- within the first three months, as long as they still hold all the biodiversity credits
- after five years, if the council has still not sold any credits.

Where BioBanking Agreements are terminated or varied with consent, the negative impacts of terminating the BioBank site must be offset. This could include the cancellation of credits related to the site, or entering into another BioBanking Agreement to replace the terminated agreement.

### Where to go for further details

**NSW Office of Environment & Heritage website:**  
<http://www.environment.nsw.gov.au/biobanking/index.htm>

**Biodiversity Credit Calculator website:**  
<http://www.environment.nsw.gov.au/biobanking/tools.htm>

**BioBanking Team:**  
 Office of Environment and Heritage  
 PO Box A290  
 Sydney South NSW 1232  
 Phone: 131 555  
 Fax: (02) 9995 6795  
 Email: [biobanking@environment.nsw.gov.au](mailto:biobanking@environment.nsw.gov.au)

## CASE STUDY

### Port Stephens Council and BioBanking

Port Stephens Council has explored property development opportunities through the use of BioBanking. In March 2013, the council entered into a BioBanking Agreement for 243 ha of land at Karuah (20 ha was withheld as a possible housing development area). The site contains 10 different vegetation communities and one species for which ecosystem credits and species credits were generated. A total of 1,858 credits were generated through the agreement. When originally signed, the BioBanking Agreement was estimated to be worth \$4,033,400.

In the past three years, 236 credits (around 13% of the total credits) have been sold, thereby raising \$533,800. Council fully expects the next credit sale will fulfil the BioBanking Total Fund Deposit amount, which will then trigger the BioBanking Fund to start making payments to council to undertake the agreed management activities. All credit sales in excess of the Total Fund Deposit will be provided direct to council.

Agreed management activities include:

- fencing and signage
- protection against grazing
- weed control
- management of fire for conservation
- minimising negative human impacts (including removing items such as dumped car bodies from the site)
- maintaining native vegetation (and replanting where necessary)
- retaining dead timber and rocks for habitat
- undertaking erosion control
- controlling feral animals
- maintaining or reintroducing natural water flow regimes.

Council is also responsible for monitoring, reporting and record keeping of all management actions required on site and the provision of an annual report for the NSW Office of Environment and Heritage, which is audited to confirm actions have been carried out.



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## Carbon credit generation and trading

<b>Opportunity</b>	Carbon Farming Initiative.
<b>Mechanism</b>	Carbon credit creation and trading.
<b>Potential return on investment</b>	Income generated through the sale of the created carbon credits.
<b>Land type / classification</b>	Council operational land, council community land, private land.
<b>Property characteristics</b>	Carbon credits can be generated from numerous activities or by not carrying out common activities; as such there are numerous property characteristics that may be suitable for carbon farming: <ul style="list-style-type: none"> <li>• agricultural lands supporting cattle grazing</li> <li>• cleared agricultural lands</li> <li>• natural wetlands</li> <li>• forested lands.</li> </ul>
<b>Facilitating organisation in the region</b>	Department of the Environment through the Emissions Reduction Fund. (See page 24 for details.)

### What is Carbon Farming?

Put simply, carbon farming is farming in a way that reduces greenhouse gas emissions or captures and holds carbon in vegetation and soils. It involves managing land, water, plants and animals in a way that meets the triple challenge of landscape restoration, climate change and food security. It seeks to reduce emissions in its production processes, while increasing production and sequestering carbon in the landscape.

Carbon farming can range from a single change in land management, such as introducing no-till cultivation or grazing management, to a whole-of-farm integrated plan which maximises carbon capture and emissions reduction.

### Benefits of Carbon Farming

Carbon which is stored in soil is an incredibly important part of the wider carbon cycle which is a fundamental part of life on earth. 'Soil organic carbon' (SOC) – the amount of carbon stored in the soil – is a component of soil organic matter (plant and animal materials in the soil that are in various stages of decay). SOC is the basis of soil fertility. It releases nutrients for plant growth, promotes the structure, biological and physical health of soil, and is a buffer against harmful substances.

Carbon farming can cover small changes in land management – like introducing no-till cropping, stubble retention, agroforestry, or methane-reducing feed supplements. At the other end of the scale, it can mean developing an integrated whole-farm plan to reduce emissions and maximise carbon capture.

Benefits to councils to undertake carbon farming include:

- the generation of Australian Carbon Credits (ACCUs) which can be sold to create additional income
- better soil health and decreased salinity
- more efficient water use
- lower greenhouse gas emissions
- healthier forests
- cleaner waterways
- improved and resilient biodiversity
- improved air quality.

Monetary value from carbon farming is derived from the generation and trading of carbon credits. A carbon credit represents 1 tonne of CO<sub>2</sub> emissions (that have not been generated). A carbon credit only counts as a true offset when it is formally retired, and cannot therefore be on sold.



### **Emissions Reduction Fund**

The Carbon Farming Initiative is now managed under the Emissions Reduction Fund (ERF), which formally commenced on 12 December 2014. The ERF seeks to fund emissions reductions by establishing a reverse auction process through which project proponents or aggregators can bid to supply emissions reductions to the government from pre-approved emission reduction projects. Based on the Carbon Farming Initiative, the ERF proposes to build on the existing approved methodologies for emissions reductions and expand them beyond the land sector.

The Clean Energy Regulator invites bids from proponents of projects already approved under the CFI (or aggregators of Australian Carbon Credit Units from such projects) to offer to supply emissions reductions in the form of these credit units. Potential bidders will need to obtain pre-approval from the Clean Energy Regulator to participate in the auction.

The average value of credit units following the first reverse auction was \$13 per tonne.

### **Voluntary Carbon Market**

Rather than producing credit units, councils may establish appropriate abatement projects and generate Voluntary Carbon Units (VCUs), which are a tradable unit on the voluntary carbon market. The creation of VCUs is managed via the Voluntary Carbon Standard, and once verified VCUs can be traded on an open market and retired once used as an offset. The value of VCUs is market dependent.

### **Cost-benefit analysis of the Carbon Farming Initiative**

The Clean Energy Regulator advises that, prior to investing in a CFI project, councils should obtain independent legal and financial advice.

Transaction costs associated with establishing projects may be large and much of this risk must be borne up front, with no certainty of later return on investment. In addition to the costs of establishing carbon farming projects, councils are encouraged to obtain expert advice on the project design and likely returns.

As a market-based mechanism, the price received by the provider will be based on the level of demand for offsets. Providers need to ensure that the price that they receive for the credits are sufficient for the ongoing maintenance costs. The Clean Energy Regulator specifically recommends that councils 'anticipate modest returns from environmental planting projects'.

Taxation implications may exist and councils should seek professional advice regarding any implications.

### **Landscape types best suited to Carbon farming**

Landscape characteristics that are suitable for carbon credit generation is dependent upon which approved methodology will be used to generate credits. As all methodologies seek abatements, agricultural lands are likely the most suitable for creating credit units or VCUs as agricultural practices can be modified to generate credits through reduction in

emissions from agricultural activities. Other suitable activities include:

- replanting cleared lands
- re-establishing wetland areas
- avoiding deforestation (not undertaking approved clearing activities).

To determine exactly what projects are suitable for your circumstances, please view the detailed methodologies included on the ERF website.

### **Complexity of the Carbon Farming Initiative**

The Carbon Farming Initiative is a complicated, commercially focused scheme. Councils are encouraged to obtain independent legal and expert advice before beginning a carbon farming project.

Due to the complexities of assessment and credit calculation, if a council decides to establish a carbon farming project they are encouraged to engage appropriate expert advice to ensure that the final project appropriately follows the approved methodology and establishes the necessary monitoring and report regime.

To generate carbon credits individuals or business must undertake the steps listed in the following table:

Steps	Description
<b>Step 1:</b> Become a Registered Offsets Entity (ROE) and open a registered account.	An applicant can be an individual, body corporate, a trustee, a corporation sole, a body politic or a local governing body, but must pass a 'fit and proper' person test.
<b>Step 2:</b> Have the project approved.	<p>To be approved, sequestration projects must meet the following requirements:</p> <ul style="list-style-type: none"> <li>• The council must be the project proponent and be a Registered Offsets Entity.</li> <li>• The council must hold the exclusive legal right to obtain the benefit of sequestration of carbon created under state and territory legislation for all the relevant project areas.</li> <li>• The council must obtain the consent of anyone with an interest registered on the land title, including a bank if a mortgage exists over the land. If the project is on Crown Land, the council may need the consent of the relevant state government minister. If there is a native title determination with respect to the land, the Council will need to obtain consent from the registered native title body corporate.</li> <li>• The council must have any necessary regulatory approvals.</li> <li>• The council must provide a statement of consistency with the relevant Catchment Action Plan.</li> <li>• The council must use an approved Carbon Farming Initiative methodology (see below).</li> <li>• The project must meet the additionality requirements and the proposed project must be on the 'positive list' of allowable projects.</li> <li>• The proposed activity must not be on the list of projects that will not be approved (known as the negative list). 'High risk activities', such as planting weed species, the clearing of native forest or the use of material obtained as a result of clearing or harvesting of native forests, are excluded from the program.</li> <li>• The council can ask to have the project recognised as providing co-benefits (such as biodiversity benefits) which may create a premium on the price of the carbon credits.</li> </ul>
<b>Step 3:</b> Undertake the project.	Projects must be completed using the relevant project methodology.
<b>Step 4:</b> Report on the project.	Reporting requirements are outlined in the relevant legislation and the relevant project methodology. It is important to understand these reporting requirements up front to ensure that appropriate measurements are taken at the beginning of the project. The length of reporting required is based on how long credits are generated (the crediting period). Sequestration offset projects based on native forestry projects generally lasts 20 years but the proponent can apply for a subsequent crediting period or request the commencement of the maintenance phase if the costs of reporting outweigh the benefits of additional credits. Once the project enters the maintenance phase it is no longer sequestering additional carbon, this may occur for example once forests are fully grown, meaning further project reports are not necessary. Project reports must be independently audited.
<b>Steps 5 and 6:</b> Receiving credits for a CFI project.	A certificate of entitlement for credits from the project will be issued if all the above requirements have been met and if the council is not required to pay any penalties and does not have an outstanding obligation to relinquish carbon credits. When a council has received a certificate of entitlement, credit units will be issued into the registry account listed on the certificate of entitlement. The council may choose to hold the credit units, exchange or convert them to another type of unit (see the Handbook for more detail), cancel them and/or exchange them for another domestic or international units (rules permitting).
<b>Step 7:</b> Project transfer and closure.	A council can withdraw from the Carbon Farming Initiative at any time. However, in the case of sequestration offset projects, all carbon credits issued will need to be returned (meaning alternative carbon credits must be sourced). An offset project can also be transferred to another ROE.

## CASE STUDY

### Great Lakes Council and the Voluntary Carbon Market

Great Lakes Council has entered into an agreement with Greenfleet to deliver biodiverse plantings (replicating the pre-disturbance native vegetation) within cleared parts of lands acquired by council for water-quality protection and biodiversity conservation purposes.

The key aim of the planting work, from council's perspective, is to revegetate the project areas to restore the degraded land and improve water quality in the Wallamba River (and Wallis Lake) and the Myall Lakes system. More than 24,000 native trees have been planted at the three sites in the Great Lakes district. At least 34 different species of trees now cover 18.6 ha.

Council benefits from this partnership through Greenfleet's expertise in replanting and its commitment of financial resources to planting establishment and maintenance



(council's financial investment related only to property fencing, all other costs are covered by Greenfleet). Greenfleet benefits from the project through access to a coastal planting area to undertake its carbon-offset obligations.

Great Lakes Council is considering further sites and agreements with Greenfleet.



### Where to go for further details

**Verified Carbon Standard:**

<http://www.v-c-s.org/>

**Department of Environment:**

<http://www.environment.gov.au/climate-change/emissions-reduction-fund/cfi/about>

**Clean Energy Regulator:**

<http://www.cleanenergyregulator.gov.au/ERF/About-the-Emissions-Reduction-Fund/How-does-it-work>

**Emissions Reduction Fund:**

<http://www.environment.gov.au/climate-change/emissions-reduction-fund>

# Australian Government (Federal) Conservation Covenant

Opportunity	Federal Conservation Agreement.
Governing legislation	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act 1999), Part 14.
Potential return on investment	Potential tax deduction, capital gains tax deduction, local government rates exemption, reduction in Livestock Health & Pest Authority rates; possible financial support to undertake conservation actions; support programs to provide technical assistance to deliver the outcomes stated in the Conservation Agreement.
Land type / classification	Council community land; private land.
Property characteristics	Land that includes designated Matters of National Environmental Significance (MNES), including nationally listed threatened species and ecological communities, migratory species protected under international agreements, wetlands of international importance (Ramsar wetlands), national heritage places and world heritage areas.
Facilitating organisation in the region	Australian Government Department of Environment. (See page 26 for details.)

## Benefits of Australian Government Conservation Covenants

Application of a Federal Conservation Covenant provides effective legal protection of lands covered by the agreement. Federal Conservation Covenants are designed to support (through either financial or legal means) activities that will protect and conserve Matters of National Environmental Significance (MNES) and biodiversity.

The use of a Federal Conservation Covenant to provide legal protection on land is enacted through a contract between the landowner and the Federal Minister for the Environment. A Conservation Covenant is developed individually for each site and asset managers therefore have the ability to negotiate what activities they would undertake, and what level of financial support they would like the

government to provide as their component of the covenant (although it should be noted that financial support is not guaranteed).

There is no set application process to seek an Australian Government Conservation Covenant over land, so direct contact with the Australian Government Department of Environment is required. Given this lack of process it may be relatively straightforward to progress the granting of a covenant, although there is very little support available or provided.

It should be noted that the Australian Government does not provide any funding assistance to establish a covenant (legal advice), nor have they recently provided any funding assistance to undertake any required management actions related to the covenants they have enacted, although scope does exist for this to occur.

A covenant may affect the value of land. In some cases land may increase in value because the use of superior land management practices may improve the quality of the land. Further, a prospective purchaser may acknowledge the conservation value of the land and be willing to pay a premium for a property with high conservation values. In other cases, a covenant may reduce the value of the property.

Taxation implications may exist and councils should seek professional advice regarding any implications.

## Landscape types best suited to Australian Government Conservation Covenants

Covenants seek to enhance the conservation of biodiversity and heritage. They can be for variable lengths of time and relate to





designated MNES. If a property includes, or impacts on any of the following, a covenant may be appropriate:

- World Heritage values of a declared World Heritage property
- National Heritage values of a National Heritage place
- Commonwealth Heritage values of a Commonwealth Heritage place
- ecological character of a declared Ramsar wetland
- the environment, in respect of the impact of a nuclear action
- the environment in a Commonwealth marine area
- a water resource, in respect of the impact of an action involving coal seam gas development or large coal mining

development

- the environment on Commonwealth land.

The intent of entering into a covenant would be to protect MNES from harm or development; as such, a covenant will typically include restrictions on activities that can occur on lands and include requirements for management activities.

Covenants can cover a wide range of actions, including but not limited to:

- controlling or prohibiting actions that may adversely affect one of the matters listed above
- requiring access by an authorised person for the purpose of monitoring compliance
- requiring an owner to give such an authorised person information that is within

- their control and is relevant to compliance
- requiring the Commonwealth to provide financial, technical or other assistance
- requiring the owner to carry out specified activities, or do specific things, that promote the conservation of one or more of the listed matters
- restricting the use of the place to actions or processes that will not adversely affect one or more of the listed matters
- requiring the owner to permit access to the place by specified persons
- requiring the owner to contribute towards costs incurred in implementing the agreement
- specifying the manner in which any money paid to the owner is to be applied
- requiring the repayment of any monies paid to the owner if a breach is committed
- providing for other conservation matters, including a plan of management.

## Where to go for further details

**Australian Government Department of the Environment:**  
<http://www.environment.gov.au/protection/environment-assessments/conservation-agreements>

GPO Box 787  
 Canberra ACT 2601  
 Ph: 1800 803 772

# NSW Government Conservation Covenant

<b>Opportunity</b>	Voluntary Conservation Agreement.
<b>Governing legislation</b>	<i>National Parks and Wildlife Act 1974</i> (NSW), Part 4, Division 12.
<b>Potential return on investment</b>	Potential tax deduction, capital gains tax deduction, state land tax exemption, local government rates exemption, reduction in livestock health and pest authority rates; provision of property signage; biodiversity surveying and assessment assistance; supporting information and community engagement through the NSW Conservation Partners program.
<b>Land type / classification</b>	Council community land; private land.
<b>Property characteristics</b>	A conservation agreement may be entered into on properties with areas containing: <ul style="list-style-type: none"> <li>• scenery, natural environments or natural phenomena worthy of preservation</li> <li>• special scientific interest</li> <li>• buildings, objects, monuments or events of national significance</li> <li>• Aboriginal objects, or Aboriginal places, of special significance</li> <li>• the subject of study, preservation, protection, care or propagation of fauna or native plants or other flora</li> <li>• critical habitat, or the conservation of threatened species, populations or ecological community, or habitat.</li> </ul>
<b>Facilitating organisation in the region</b>	NSW Office Of Environment and Heritage. (See page 28 for details.)

## Benefits of a Voluntary Conservation Agreement

The potential investment return for entering into a Voluntary Conservation Agreement (VCA) includes access to information, networks, funding and tax rebates and concessions.

By entering into a VCA, councils become part of the OEH Conservation Partners Program. The program provides property signage, subscription to the *Bush Matters* newsletter, and access a network of like-minded people.

OEH may provide funding to help meet the cost of works, such as fencing the conservation area, clearing weeds and controlling feral animals. Properties that have

VCAs may be eligible for other grant programs (from organisations such as local catchment management authorities) to meet the costs of carrying out specific conservation works.

A VCA may affect the value of land. In some cases, land may increase in value because the use of superior land management practices may improve the quality of the land. Further, a prospective purchaser may acknowledge the conservation value of the land and be willing to pay a premium for a property with those values. In other cases, a VCA may reduce the value of the property.

Taxation implications may exist and councils should seek professional advice regarding any implications.

## Landscape types best suited for a VCA

A VCA is a formal agreement between a council and the NSW Minister for the Environment to protect and conserve land in perpetuity. As such, the NSW Government would only seek to sign an agreement over land that includes some, or all, of the following features:

- areas containing scenery, natural environments or natural phenomena worthy of preservation
- areas of special scientific interest
- areas that are the sites of buildings, objects, monuments or events of national significance



- areas in which Aboriginal objects or Aboriginal places of special significance are situated
- areas that can support the study, preservation, protection, care or propagation of fauna or native plants or other flora.

VCA's can protect freehold and leasehold land and land that is in private or public ownership. OEH will only enter into a VCA over land of high conservation value, which it defines as land that:

- has a range of natural and cultural attributes
- is in a native condition
- is not environmentally degraded.



### Complexity of VCAs

The process for developing and executing a VCA on a property usually takes between six and 12 months, but can take more or less time depending on the council's particular circumstances. The following steps outline the typical process for establishing a VCA:

1. A council must apply for a VCA application form with the OEH Conservation Partners Program.
2. An OEH officer will assess the property to determine if it is suitable.
3. If the property is suitable, and OEH has agreed to establish a VCA, an OEH officer will carry out a biodiversity survey and identify the boundaries of the conservation area.
4. The OEH officer will prepare the VCA, including a Management Scheme. A council can review the documents and propose changes (with independent legal advice at this stage of the process).
5. Once a council and OEH have agreed to the terms of the VCA, all parties will sign the agreement.
6. OEH arranges for the VCA to be registered on the certificate of title to the property, leaving the council to manage the land for conservation.

### Considerations prior to signing a VCA

- Asset managers should seek independent legal advice before entering into a VCA. OEH may provide some financial support to pay for independent legal advice; alternatively, a council can access the Private Conservation Pro Bono Referral Service.
- Consent is required from all councils and entities that have an interest in the land; for example, a mortgage provider will need to co-sign the VCA.
- Legal obligations on the landowner will be set out in the VCA. Obligations are likely to include the restriction of activities that will harm the land (e.g. intensive agriculture) and management activities to be undertaken (e.g. noxious weed management).
- The VCA will be registered on the title of the property, thereby binding future owners of the land to the conditions of the VCA. If there is a change of ownership or control, OEH must be informed within 28 days.

### Where to go for further details

**Office of Environment & Heritage:**  
<http://www.environment.nsw.gov.au/cpp/ConservationAgreements.htm>

**NSW Office of Environment & Heritage**  
 117 Bull Street  
 Newcastle West NSW  
 Ph: 4908 6800  
 Fax: 4908 6810  
 Email: [info@environment.nsw.gov.au](mailto:info@environment.nsw.gov.au)

## Property Vegetation Plan

<b>Opportunity</b>	Property Vegetation Plan.
<b>Governing legislation</b>	<i>Native Vegetation Act 2003</i> (NSW). <i>Native Vegetation Regulation 2005</i> (NSW).
<b>Potential return on investment</b>	Possible financial support, rates reduction; information and access to technical experts to assist with implementation of management actions.
<b>Land type / classification</b>	Council community land; private land.
<b>Property characteristics</b>	Property Vegetation Plans can be applied to any land with native vegetation present. A PVP is typically used to <ul style="list-style-type: none"> <li>• protect native vegetation from development</li> <li>• gain approval to harvest native vegetation as part of Private Native Forestry activities.</li> </ul>
<b>Facilitating organisation in the region</b>	Hunter Local Land Services. (See page 31 for details.)

### Benefits of Property Vegetation Plans

Councils may implement a Property Vegetation Plan (PVP) for a number of reasons, including being able to:

- undertake Private Native Forestry activities (see Section 4: Commercial opportunities)
- secure offsets associated with development and clearing
- apply for native vegetation incentive funding
- protect native vegetation for future generations.

As such, there is often a monetary incentive for a council to seek a PVP. There are no costs to a council to prepare a PVP as the assessment is done by Local Land Services (LLS), unless a council chooses to get independent legal advice first.

Councils with approved PVPs may be eligible for financial assistance to help with

conservation initiatives, such as revegetation plans and soil erosion control.

A PVP sets out land-management requirements to be undertaken on the land, and asset managers should ensure they are financially able to undertake the required actions for the term of the PVP (often in perpetuity), although costs may be offset through grants from LLS.

There are no tax exemptions or concessions, and no local government rate reductions available for entering into a 'clearing' PVP.

Considerations prior to executing a PVP:

- Councils may wish to seek independent legal advice.
- Consent is required from all entities that have an interest in the land; for example, a mortgage provider will need to co-sign the PVP.

- A PVP is listed on the title of the property and will therefore bind any future landowners to the terms of the PVP.

### Landscape types best suited to PVPs

PVPs are a key mechanism under the native vegetation laws in NSW and are designed to provide protection of native vegetation across the NSW landscape. As such, a minimum requirement for land to have a PVP executed is the presence of native vegetation.

The process for developing a PVP is based on the application of an objectively based scientific tool – the environmental outcomes assessment methodology (EOAM) – that assesses a range of relevant variables. This ensures that the PVP is based on relevant ecological data and the offsets meet certain scientific criteria.



## CASE STUDY

### Stewarts Brook PVP

Terry O'Brian is a Stewarts Brook councillor who joined forces with his neighbours to protect an ecologically significant bushland corridor joining Woolooma National Park to Mount Royal National Park in the Upper Hunter.

In 2012, Terry entered into a Property Vegetation Plan under the NSW *Native Vegetation Act 2003*. The plan covered a 310ha area of snowgum, mountain gum woodland, grassy box woodland, subalpine grassland and riparian vegetation.

With funding through an incentives program from Local Land Services (the administering body of the Act), Terry was able to fence off the area from stock and commit resources for ongoing weed and pest animal control for the 15-year term of the PVP.

'I had no intention of using the area for primary production so I decided to fence it off for regeneration, and to simply enjoy it,' explained Terry, who often spends time away from his Gundy home to camp on the property with his family. 'There are plenty of animals up there, including wombats, quolls and many species of native birds, wallabies and kangaroos.'

Among the various vegetation communities, the PVP area contains remnants of endangered grassy box woodland, a vegetation type that has historically suffered from land clearing and grazing pressures across the Hunter.

Terry currently runs a herd of 40 cattle on other paddocks on his property and will undertake occasional controlled grazing in the PVP area to manage weeds.





The EOAM draws information from the datasets listed below to determine any impact and necessary offset or protection of native vegetation:

- threatened species profile database
- vegetation benchmarks database
- over-cleared landscapes database
- over-cleared vegetation types database
- coastal thinning genera database
- major rivers database
- important wetlands database
- soil subregions database
- invasive native scrub species database.

### Strategic considerations for the support of PVPs on private land

As a PVP is an agreement between a council and Hunter LLS, council will be notified when a PVP is executed so this can be included on the property s149 certificate so it binds future landowners.



### Where to go for further details

**Hunter Local Land Services:**

<http://hunter.lls.nsw.gov.au/land-and-water/native-vegetation/property-vegetation-plans>

**Office of Environment & Heritage:**

<http://www.environment.nsw.gov.au/vegetation/pvp.htm>

**Environmental Outcomes Assessment Methodology (EOAM):**

<http://www.environment.nsw.gov.au/resources/vegetation/130788EOAMNVR13.pdf>

**Hunter Local Land Services:**

Paterson Office  
816 Tocal Road (Private Bag 2010)  
Paterson NSW 2421  
Ph: 4930 1030  
Fax: 4930 1013



# 3. Grant programs

There are a number of common grant programs available to councils to support land management activities and biodiversity activities, details of these opportunities are listed in the table below and on the following pages.

Grant purpose	Fund name	Funding organisation	Details
<b>Improve and maintain land and facilities on Crown Land</b>	Public Reserves Management Fund Program	NSW Trade & Investment: Crown Lands	<p>The Public Reserves Management Fund Program is an annual program providing financial support for the development, maintenance and improvement of public reserves. Managers of any NSW Crown reserve, as well as freehold showgrounds and schools of arts, can be eligible to apply for funding. The program provides grants and low interest loans to eligible applicants through a competitive application process.</p> <p>Projects of all sizes are eligible for funding with no upper limit stated, but greater financial controls in place for projects over \$250,000.</p>
Link to fund website: <a href="http://www.lpma.nsw.gov.au/crown_land/crown_reserves/funding/PRMFP">http://www.lpma.nsw.gov.au/crown_land/crown_reserves/funding/PRMFP</a>			
<b>Natural disaster recovery on public land</b>	Natural Disaster Fund Program	NSW Trade & Investment: Crown Lands	<p>Crown Lands also administers the Natural Disaster Relief Scheme, which makes funds available to repair, replace or restore public property destroyed or damaged as a result of declared natural disasters. Grants are made available where the infrastructure and/or facilities involved are regarded as 'essential public assets'.</p> <p>Funds for the scheme are made available from the Commonwealth and State Treasury. Reserve trusts can contact Crown Lands customer service for more information on applying for this funding in the event of a natural disaster.</p> <p>Projects of all sizes are eligible for funding with no upper limit stated.</p>
Link to fund website: <a href="http://www.lpma.nsw.gov.au/crown_land/crown_reserves/funding/PRMFP">http://www.lpma.nsw.gov.au/crown_land/crown_reserves/funding/PRMFP</a>			



### 3. GRANT PROGRAMS

Grant purpose	Fund name	Funding organisation	Details
Restoration and rehabilitation	Environmental Restoration and Rehabilitation	NSW Environmental Trust	<p>The aim of the Environmental Restoration and Rehabilitation program is to facilitate projects run by community organisations and government entities working to prevent or reduce environmental degradation of any kind. Through these projects, the Trust aims to improve the capacity of communities and organisations to protect, restore and enhance the environment.</p> <p>The objectives of the Environmental Restoration and Rehabilitation program are to:</p> <ul style="list-style-type: none"> <li>• restore degraded environmental resources, including rare and endangered ecosystems</li> <li>• protect important ecosystems and habitats of rare and endangered flora and fauna</li> <li>• prevent or minimise future environmental damage</li> <li>• enhance the quality of specific environmental resources</li> <li>• improve the capacity of eligible organisations to protect, restore and enhance the environment</li> <li>• prevent or reduce pollution.</li> </ul> <p>Grant applications for projects from \$5,000 to \$100,000 are accepted.</p>
Link to fund website: <a href="http://www.environment.nsw.gov.au/grants/restoration.htm">http://www.environment.nsw.gov.au/grants/restoration.htm</a>			
Estuary management	Estuary Management grants	NSW Environmental Trust	<p>Under the Estuary Management Program, the NSW Government provides estuary management grants to support local government work to improve the health of NSW estuaries.</p> <p>Projects which can be subsidised under the programs include:</p> <ul style="list-style-type: none"> <li>• preparation (or updating) of coastal zone management plans and associated technical studies (including coastal hazard assessments)</li> <li>• action to manage the risks from coastal hazards</li> <li>• action to implement environmental repairs, including habitat restoration and conservation projects</li> <li>• pre-construction activities for projects that are eligible and are likely to proceed to construction development of management tools (such as education projects).</li> </ul> <p>No upper funding limit is stated, and funding of up to 50% of a project's costs will normally be offered for successful grant applicants.</p>
Link to fund website: <a href="http://www.environment.nsw.gov.au/coasts/estuarygrants.htm">http://www.environment.nsw.gov.au/coasts/estuarygrants.htm</a>			

Grant purpose	Fund name	Funding organisation	Details
Coastal zone management	Coastal Management Program	NSW Environmental Trust	<p>Under the Coastal Management Program, the NSW Government provides coastal management grants to support local government in managing the risks from coastal hazards, such as coastal erosion, and restoring degraded coastal habitats.</p> <p>Projects which can be subsidised under the program include:</p> <ul style="list-style-type: none"> <li>• preparation (or updating) of coastal zone management plans and associated technical studies (including coastal hazard assessments)</li> <li>• action to manage the risks from coastal hazards</li> <li>• action to implement environmental repairs, including habitat restoration and conservation projects</li> <li>• pre-construction activities for projects that are eligible and are likely to proceed to construction development of management tools (such as education projects).</li> </ul> <p>No upper funding limit is stated, and funding of up to 50% of a project's costs will normally be offered for successful grant applicants.</p>
Link to fund website: <a href="http://www.environment.nsw.gov.au/coasts/coastalgrants.htm">http://www.environment.nsw.gov.au/coasts/coastalgrants.htm</a>			
Floodplain management	Floodplain Management Program	NSW Office of Environment & Heritage	<p>The NSW Government provides technical and financial support to local government under the Floodplain Management Program to manage flood risk. The primary objective of the program is to support the implementation of the NSW Flood Prone Land Policy, which aims to reduce the impacts of flooding and flood liability on communities and to reduce private and public losses resulting from floods, using ecologically positive methods wherever possible.</p> <p>No upper funding limit is stated, but assistance is usually \$2 from government for every \$1 provided by the applicant.</p>
Link to fund website: <a href="http://www.environment.nsw.gov.au/coasts/Floodgrants.htm">http://www.environment.nsw.gov.au/coasts/Floodgrants.htm</a>			

### 3. GRANT PROGRAMS

Grant purpose	Fund name	Funding organisation	Details
Land management	Biodiversity Program	Hunter Local Land Services (LLS)	<p>The Hunter LLS Biodiversity Program is an on-ground works program designed to:</p> <ul style="list-style-type: none"> <li>• address key threats to biodiversity habitat connectivity, quality and condition in targeted areas adjoining the Barrington Tops World Heritage Area, and</li> <li>• increase landscape connectivity and enhance biodiversity habitat in targeted corridors across the Hunter LLS region as part of a response to climate change.</li> </ul> <p>This program will provide incentives for councils to:</p> <ul style="list-style-type: none"> <li>• protect and enhance native vegetation by addressing key threats to biodiversity in areas adjacent to the Barrington Tops World Heritage Area</li> <li>• protect, enhance and establish native vegetation in key strategic biodiversity connectivity corridor areas in the Hunter LLS region.</li> </ul> <p>Hunter LLS will consider providing financial support through this program for the following works in identified key strategic areas:</p> <ul style="list-style-type: none"> <li>• managing threats to existing native vegetation, such as stock grazing, weeds, fire and pest animals</li> <li>• protection and enhancement of existing native vegetation, including terrestrial, riparian and wetland vegetation; projects greater than 50 ha in size are preferred</li> <li>• protection and enhancement of native vegetation regrowth; projects greater than 20 ha in size are preferred</li> <li>• revegetation of native vegetation through planting or increasing the rate of natural regeneration; projects greater than 10 ha in size are preferred.</li> </ul>
Link to fund website: <a href="http://hunter.lls.nsw.gov.au/our-region/grants-funding-scholarships">http://hunter.lls.nsw.gov.au/our-region/grants-funding-scholarships</a>			
Protecting threatened species	Saving Our Species	NSW Environmental Trust	<p>The Saving our Species Partnership Grants program is a contestable grants program seeking to achieve long-term outcomes for threatened species in NSW. Funded by the NSW Environmental Trust, the program will encourage partnerships between government, the community, non-government organisations and corporations to protect and conserve our most vulnerable plants and animals.</p> <p>Individual grants of between \$300,000 and \$1,000,000 are available.</p>
Link to fund website: <a href="http://www.environment.nsw.gov.au/savingourspecies/about.htm">http://www.environment.nsw.gov.au/savingourspecies/about.htm</a>			

Grant purpose	Fund name	Funding organisation	Details
Tree planting	20 Million Trees Competitive Grants	National Landcare Program	<p>The Australian Government has committed to working with the community to plant 20 million trees by 2020 to re-establish green corridors and urban forests. This initiative will deliver real environmental benefits at the local level through community participation in re-establishing native vegetation, providing habitat to support our threatened species and sequestering carbon from the atmosphere. These in turn will help to create greener spaces to improve the liveability of our cities and towns.</p> <p>Applications for grant funding between \$20,000 and \$100,000 are accepted.</p>
Link to fund website: <a href="http://www.nrm.gov.au/national/20-million-trees/competitive-grants">http://www.nrm.gov.au/national/20-million-trees/competitive-grants</a>			
Climate change resilience	Building Resilience to Climate Change	NSW Local Government	<p>The Building Resilience to Climate Change program has been established to encourage:</p> <ul style="list-style-type: none"> <li>• enhanced consideration of climate change impacts in local and regional decision making</li> <li>• delivery of projects that minimise climate change impacts for local and regional decision makers</li> <li>• implementation of climate change adaptation beyond current projects and programs</li> <li>• fostering of adaptive capacity in local government through a community of practitioners across professional disciplines with direct experience in implementing adaptation responses across NSW.</li> </ul> <p>Grants of between \$15,000 and \$80,000 are available for projects delivered within 15 months. Collaboration with one or more councils, regional organisations, private sector or government agencies and other organisations is encouraged.</p>
Link to fund website: <a href="http://www.lgnsw.org.au/policy/climate-change/building-resilience">http://www.lgnsw.org.au/policy/climate-change/building-resilience</a>			







# 4. Commercial opportunities

There are a number of commercial operations that may be suitable for being undertaken on council lands, or could be supported through council planning and zoning. Details of the various opportunities are outlined in the following section.







## Private Native Forestry

Opportunity	Private native forestry.
Potential return on investment	Income from market sale of timber products. Possible financial support through the development of a Private Native Forestry Property Vegetation Plan.
Land type / classification	Council operational land; private land.
Property characteristics	Becomes economically viable on properties larger than 10ha which are already vegetated with mature native vegetation.
Facilitating organisation in the region	NSW Environmental Protection Agency. Hunter Farm Forestry Network. (See overleaf for details.)

### Opportunity and benefits

Farm forestry enables landholders to incorporate tree growing and management into their farming systems for a range of commercial production and natural resource management objectives.

Farm forestry broadly incorporates commercial trees and shrubs, except for horticultural species, into farm operations. It takes many forms, including timber belts, alleys and revegetation projects, and timber production, as well as a wide and diverse range of products such as oils, flowers and fodder, and agricultural productivity. It also helps tackle land degradation and encourages wildlife to occupy and move through the landscape. There is no doubt that establishing trees on farms and effectively managing private native forests delivers sustainable natural resource management outcomes.<sup>2</sup>

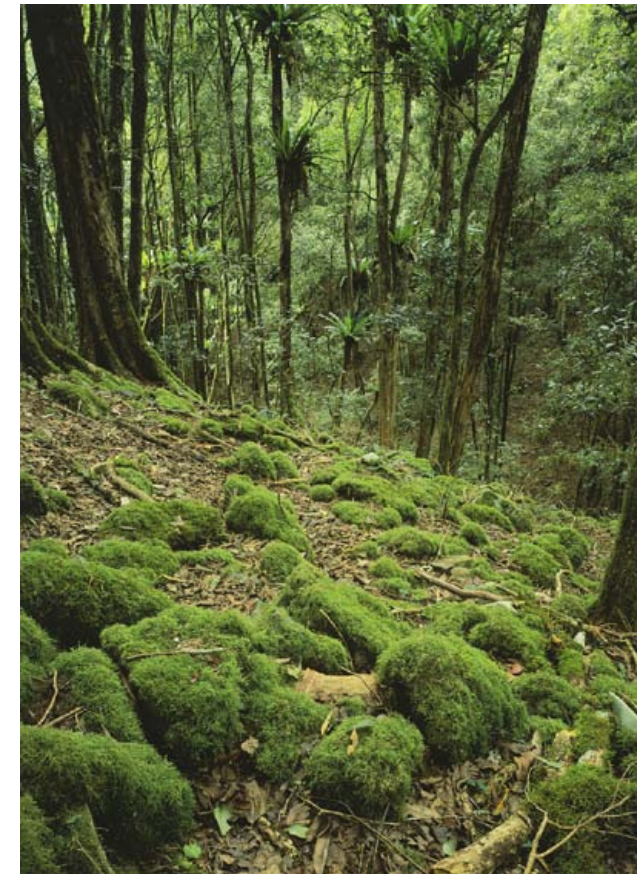
The economic viability of private native forestry (PNF) is dependent on the characteristics of the landscape. Large land parcels with a high density of saleable timber will likely generate higher returns than similar

parcels that are more sparsely vegetated, although there may be greater investment expense to develop access roads and other infrastructure.

To gain an understanding of the potential viability of undertaking PNF, we recommend that you contact the Environmental Protection Agency's Native Forestry Officer and review the PNF Code of Practice (see below). This will help you to gain a better understanding of forestry operations, harvesting timeframes, and the investment required to undertake forestry activities.

Initial investment in PNF activities will be required to undertake the appropriate site assessments, develop the PVP document and develop a business plan and Forestry Operations Plan. As with any business operation, a reasonable amount of planning must be undertaken to establish a PNF operation involving the harvesting and sale of timber products. The PNF Code of Practice provides details on the requirements needed, including:

- mapping of boundaries, infrastructure, threatened species locations, landform features, etc.
- a description of the forest type, disturbance history and vegetation condition



<sup>2</sup> Department of Agriculture, Fisheries and Farming, 2002, 'Australian Farm Forestry: A special supplement produced by the Australian Farm Journal', Canberra.

- details of the stand height and basal areas
- details of the proposed forestry operations and methods, including flora and fauna management, regeneration activities and environmental protection methods.

To determine exactly what harvesting operations would be allowable on your parcel of land (and therefore to gain an understanding of potential outlays and returns) the Code of Practice sets out the requirements for land management.

It is highly recommended that any proposed forestry activities on vegetated blocks take place only after specialist advice from the NSW EPA and specialist forestry professionals has been obtained.

### Landscape types best suited to private native forestry

When we discuss private native forestry in this publication we are describing an activity that supports biodiversity conservation: we are not referring to a plantation activity that would lead to an entire land parcel being cleared and prepared for replanting and harvest. The PNF Code of Practice is designed to ensure that core environmental values are protected during harvesting operations, and specific areas of environmental importance are protected.

Environmental features that would be protected if present inside the forestry activity include:

- threatened species and endangered ecological communities
- riparian zones (the land alongside a river, creek or waterway)
- habitat and biodiversity protection (hollow-bearing trees and logs and other areas of key habitat necessary to maintaining species mix)
- protecting catchments and minimising soil erosion and reducing contamination of waterways

- maintaining the forest structure
- protecting Aboriginal and cultural heritage values.

The amount of biomass able to be removed from a forestry activity is dependent upon the stand height, basal area, vegetation type and canopy cover. The Code of Practice enforces management of the stand to ensure it is optimal for rehabilitation and supports habitat for flora and fauna present. A strong understanding of the environment is required prior to undertaking forestry activities to determine suitability and economic viability of forestry activities

### Strategic considerations for the support of private native forestry activities on council land

Many councils may consider that undertaking private native forestry activities on their operational land may not be economically viable, or consistent with community expectations. This does not mean that the activity does not provide valuable income generating ability for private councils with possible biodiversity conservation outcomes (especially compared to the site being developed or not actively managed which may enable pest and weed invasion to the area).

## Where to go for further details

### NSW EPA:

Hunter, Central Coast and Lower North Coast  
Region Forestry Officer  
98 Victoria Street  
Taree NSW 2430  
(02) 6552 2788

Website: <http://www.epa.nsw.gov.au/vegetation/nativeforestry.htm>

Code of Practice : <http://www.epa.nsw.gov.au/pnf/CoPNthnNSW.htm>

### Hunter Farm Forestry Network:

Website: <http://hffn.org.au/>

### The Australian Master Tree Grower Program:

Website: <http://www.agroforestry.net.au/main.asp>

# Plants and plant product production

<b>Opportunity</b>	Plant and plant product production.
<b>Potential return on investment</b>	Market sale of products.
<b>Land type / classification</b>	Operational land; private land.
<b>Property characteristics</b>	<p>Areas of native vegetation that support the growth of plants such as:</p> <ul style="list-style-type: none"> <li>• Myrtaceous plants (oil-bearing for essential oils)</li> <li>• native vegetation (for honey production through apiary activities and/or native seed production)</li> <li>• native bush foods (typically herbs and seeds).</li> </ul>
<b>Facilitating organisation in the region</b>	<p>No facilitating authority, but there are a number of Industry Associations.</p> <p><b>Bush foods:</b></p> <ul style="list-style-type: none"> <li>• Australian Native Food Industry</li> </ul> <p><b>Honey production:</b></p> <ul style="list-style-type: none"> <li>• The Australian Honey Bee Industry Council</li> <li>• The New South Wales Apiarists' Association</li> </ul> <p><b>Essential oils:</b></p> <ul style="list-style-type: none"> <li>• Essential Oils Producers Association of Australia</li> </ul> <p><b>Native seeds:</b></p> <ul style="list-style-type: none"> <li>• Florabank</li> </ul> <p>(See page 45 for details.)</p>

## Opportunity and benefits

Driven by the significant investment of early industry leaders, commercially viable harvesting of native plants and plant products is a growing industry in Australia as export markets continue to expand. Opportunities for growing and harvesting native plant products – such as bush foods, native honey, oils and seeds – are increasing annually.

The exact income that could be generated from any of these activities will be determined by the quality of the product, market demand, yield of harvest, and business model, and is therefore specific to each operation. An overview of some common plant and plant product industries is provided below to offer an insight into each industry.

## Bush foods

Native culinary seeds, herbs, plants and fruit can be sold in a variety of forms: fresh, dried, frozen and made into sauces and other products for the culinary, medicinal and fragrance markets. With careful planning and thorough market research, the commercial growing of herbs and plants offers an opportunity to manage land effectively and derive a profit from these management activities.

The majority of bush foods are used as ingredients in chutneys, preserves, sauces, bread, flour and condiments. Many specialty restaurants are thriving, thereby putting pressure on the production and provision of bush tucker products.

## Honey

Honey production is an industry with a long history in Australia. A wide variety of honey flavours and characteristics can be created depending upon the plant types from which the bees gather pollen. In 2014, the Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) determined the gross value of production (GVP) of the beekeeping industry in 2012–13 was \$88 million, with a forecasted GVP of \$92 million in 2013–14.<sup>3</sup> The relatively small beekeeping industry GVP understates the industry's value to agriculture and the economy in general through pollination services and, potentially, the value of honey and honey products in medical uses.

<sup>3</sup> ABARES, 2014.

Honey production provides a viable income for asset managers, and is a perfect fit to other native plant production activities, such as bush foods and essential oils, as the bees can act as plant pollinators and produce a saleable product in addition to the bush foods or oils. Private Native Forests, or properties adjacent to state forests or national parks, are suitable for the apiary industry as these forests provide most of the floral resource required for bees to make honey.

**Essential oils**

Australia is the home of several well known essential oils, notably eucalyptus oil and tea tree oil, both of which have become household names the world over. The production of essential oils may be a suitable business in native forests. Australia (specifically the

east coast of Australia) provides perfect growing conditions for Myrtaceous trees and shrubs – all of which are oil bearing.

Typically, the essential oil industry exists through plantations and coppice harvesting practices, neither of which will provide ongoing biodiversity conservation outcomes. However, wild harvesting of native trees is possible, although it is more labour intensive and therefore provides less return on investment. Cottage-level industry for essential oil production, operating in conjunction with bush food production and honey production, may well provide a viable income for lands with native vegetation present.

**Native seed**

The production, collection, storage and sale of native seeds is becoming vitally important as development

pressures increase and population grows. New and existing environmental protection legislation requires developments to plant native trees in an attempt to offset impacts from development; as a result, the native seed production industry is growing.

Greening Australia has developed a code of practice to assist asset managers who want to collect and sell native seeds. The code seeks to institute standards for the collection and storage of seeds to ensure seed viability and a robust industry.

**Landscape types best suited to plant and plant production**

The table below provides some insight into the landscape attributes that would support the plant and plant product industries.

Landscape attribute	Bush foods	Essential oils	Honey	Native seeds
Native vegetation	Bush foods are natives, so vegetation communities supporting the growth of these plants is required.	Myrtaceous plants are typically native. Planting of introduced oil-bearing plants (lavender) would likely require land clearing and is not supported by this guide.	Requires native flowering vegetation to create the unique flavours possible from native vegetation sources.	Require native vegetation to propagate the seeds.
Access to water	As the bush foods are generated by native plants there should be little need to vary the watering regime.	If the essential oil operation is utilising existing natural tree stands, then altering the natural watering regime is unnecessary.	No altering of the natural water regime is required.	No altering of the natural water regime is required.
Access roads	Access roads may be required to support machinery. Dependent upon size of industry.	Access roads will be required.	No additional access should be required.	No additional access should be required.
Proximity to stands of native vegetation (national parks, state forests, etc.)	May benefit from close proximity to provide genetic diversity in plants.	May benefit from close proximity to provide genetic diversity in plants.	Required to provide pollen to create honey.	May benefit from close proximity to provide genetic diversity in plants.

Note that apiary activities provide positive outcomes for all other plant production activities through pollinating activities.



## Strategic considerations for the support of plant and plant production activities on council land

Councils are usually not set up to operate independent commercial activities (with the exception of native plant nurseries that may already be undertaking native seed collection) and therefore may not feel that attempting to commence a commercial

plant product operation matches the objectives for council activity set out in the Community Strategic Plan.

The establishment and operation of such industries however could be supported by council through the appropriate zoning of rural lands and possibly some environmental lands.



IMAGE COURTESY OF SCREEN HUNTER

## Where to go for further details

### USEFUL PUBLICATIONS

Bush sensations: *Starting a herb or bush tucker business?*:

[http://bushfoodsensations.net/wp-content/uploads/2012/11/Final\\_Herb\\_Guide\\_2006.pdf](http://bushfoodsensations.net/wp-content/uploads/2012/11/Final_Herb_Guide_2006.pdf).

Lake Macquarie Landcare: *Bushfood plants*:

[http://www.lakemacquarielandcare.org/Files/Uploads/File/Resources/5\\_Local%20Bushfood%20Plants%20-%20Final%202013.pdf](http://www.lakemacquarielandcare.org/Files/Uploads/File/Resources/5_Local%20Bushfood%20Plants%20-%20Final%202013.pdf).

Jennifer Wightman & Lachlan Anderson: *Common bushfoods of the Hunter*:

<https://hunterindigenousplants.files.wordpress.com/2013/04/common-bushfoods-of-the-hunter-2009-11.pdf>.

Trees in Newcastle: *Bushfood gardens*:

[http://www.treesinnewcastle.org.au/SiteFiles/treesinnewcastleorgau/Trees\\_In\\_Newcastle\\_Bush\\_Food\\_Garden\\_web.pdf](http://www.treesinnewcastle.org.au/SiteFiles/treesinnewcastleorgau/Trees_In_Newcastle_Bush_Food_Garden_web.pdf).

NSW Department of Primary Industries: *Bee ag skills*:

<http://www.dpi.nsw.gov.au/aboutus/resources/bookshop/bee-agskills>.

The New South Wales Apiarists' Association: *Apiary sites on public lands position paper*:

<http://www.nswaa.com.au/assets/Uploads/Apiary-Sites-On-Public-Lands-Position-Paper.pdf>.





# Ecotourism

Opportunity	Ecotourism.
Potential return on investment	Income from consumers visiting (and staying) at ecotourism facilities.
Land type / classification	Council community land (limited opportunities); council operational land; private land.
Property characteristics	Areas of natural bushland or iconic features (wetlands, rainforests, sand dunes, caves, habitat or ecosystems supporting interesting native animals, etc.) that would attract travellers and people that appreciate the natural environment.
Facilitating organisation in the region	No specific facilitating organisation in the region, but support may be offered by: <ul style="list-style-type: none"> <li>• Ecotourism Australia</li> <li>• Tourism Hunter</li> <li>• Destination NSW.</li> </ul>

## Opportunity and benefits

The early profile of the 'ecotourist' was that of a person who chose to visit *exotic locales*. Increasingly the term has taken on greater meaning and applies to all manner of socially and environmentally curious, adventurous, escapist and/or responsible people. Ecotourism, once a niche market for a limited number of individuals, has come to conservatively represent an estimated quarter of the world's travel and tourism market. The growing appreciation of locally, responsibly and sustainably resourced goods and services has also opened up new opportunities to the hospitality and tourism businesses.

Ecotourism is an important economic driver for many communities, as seen by the \$6 million investment made by the NSW Government in North Coast NSW Tourism early in 2015. The industry is already substantial in the region, with Destination NSW providing the following statistics for the 2014 calendar year:

- 3.1 million domestic overnight visitors spending \$1.4 billion. This is an 11.1% increase on visits and

an 8.2% increase on expenditure when comparing to the 2013 calendar year.

- 5.6 million day trips, spending some \$636 million in the region, an increase of 1.7% on visitors and 8.4% increase in expenditure.
- A total of 8.6 million overnight visits were spent in the region, an increase of 19.4% on the 2013 calendar year.
- 16.2% of all visitors to NSW spent time in the region.

An increase in environmental requirements and the prominence of the region's tourism appeal suggests that ecotourism is a lucrative undertaking given the diversity of region's natural assets.

## Landscape types best suited to for ecotourism

The region has a diversity of important and interesting natural landscapes and assets that are highly conducive to associated ecotourism ventures:

- high quality coastal assets, including beaches and bays, rocky cliffs and outcrops, islands and

estuaries, marine reserves

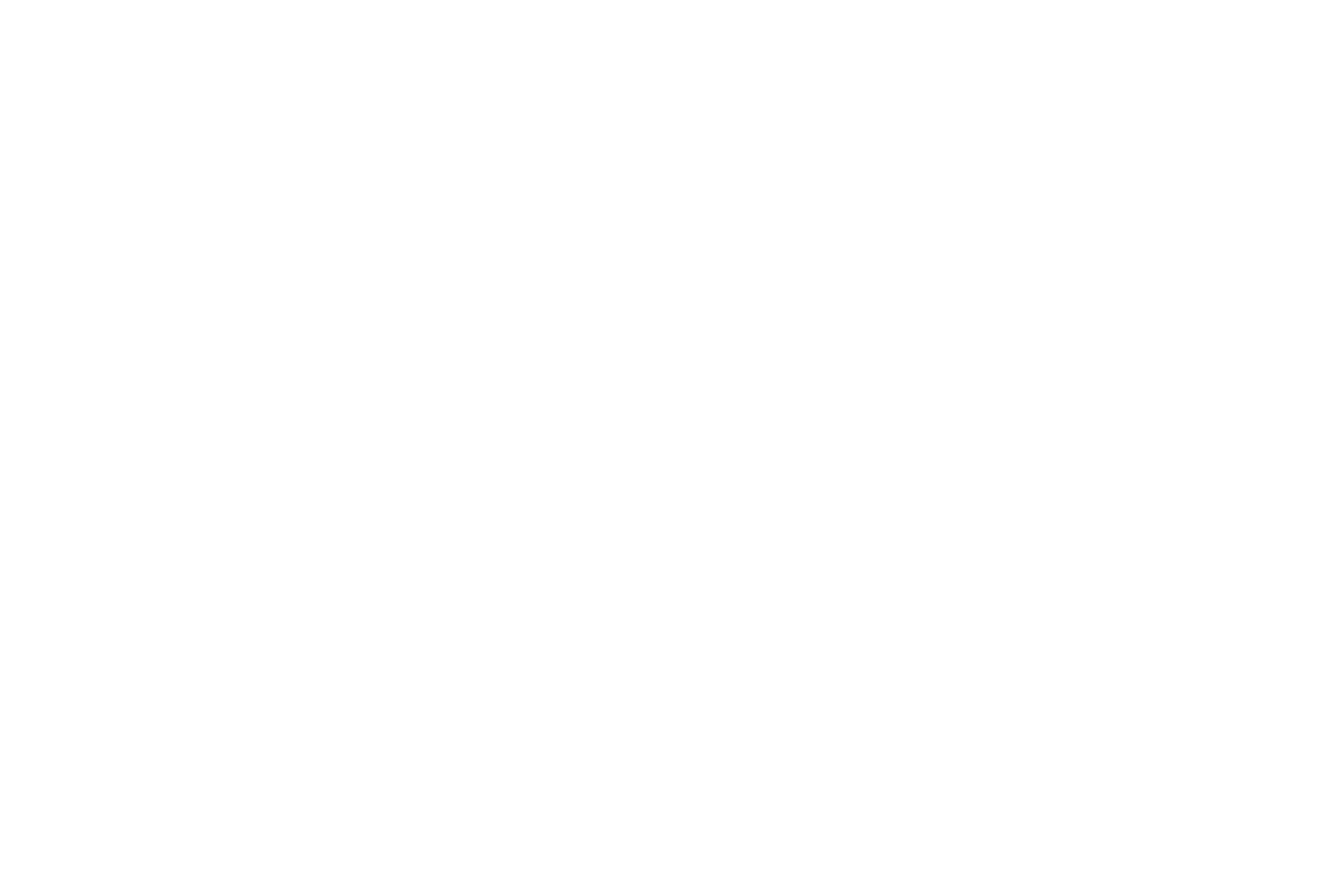
- rugged mountain ranges, rainforests and alpine environments
- World Heritage areas, iconic national parks, reserves, and stock routes
- international RAMSAR sites, wetlands and major river systems
- rich and fertile floodplains, valleys, rural landscapes and villages.

## Where to go for further details

Ecotourism Australia:  
<http://www.ecotourism.org.au>

Tourism Hunter:  
<http://tourismhunter.com.au>

Destination NSW:  
<http://www.destinationnsw.com.au>



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Hunter & Central Coast  
Regional Environmental  
Management Strategy

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**Suggested citation:**

HCCREMS, EDO (2015). *Benefiting from biodiversity: An investment guide for local government.* Hunter Councils Inc., NSW.

ISBN: 978-0-9873695-6-7

**Published by:**

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Production: Bruderlin MacLean Publishing Services

**Disclaimer**

This document is intended to provide landholders in the Hunter Region with information on the various opportunities available in the region to conserve biodiversity on their properties. While all care has been taken in the development of the booklet, any landowner considering utilising any conservation mechanism is recommended to seek legal advice to ensure they undertake appropriate due diligence. It should also be noted that at the time of publication the NSW Government is undertaking a review of all state biodiversity legislation. Hence, during 2015–16 there may be significant changes to the mechanisms discussed in this booklet.

This document has been compiled in good faith, exercising all due care and attention. Hunter Councils does not accept any responsibility for inaccurate or incomplete information. Readers should seek professional advice when applying information in their specific circumstances.

**Acknowledgements**



The Hunter Councils Environment Division has prepared this publication with the support of the Australian Government through its Biodiversity Fund.

Special thanks is given to the staff of the member Councils of the Hunter & Central Coast Regional Environmental Management Strategy for their assistance in the development of the document.

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