NSW GOVERNMENT
Office of Environment & Heritage

Growth Centres Biodiversity Offset Program

Annual Report 2010–11

Securing protection of some of the best remaining bushland in western Sydney and the surrounding region for current and future generations

Main cover photo: The historic Beulah homestead at Gilead, near Appin. The Cumberland Plain Woodland behind the homestead was permanently protected in 2011 as a biobank site with funding from the program.

Other photos were all taken on the Beulah biobank site. From left to right: driveway through endangered Shale Sandstone Transition Forest; lace monitor; tiger orchid *Diuris sulphurea*; spotted gum.

All cover photos: OEH

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OEH 2011/0622
ISSN 1837–5650
October 2011
Printed on environmentally sustainable paper

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Foreword

The Growth Centres Biodiversity Offset Program is now in its third year of operation and is proving to be an effective way of conserving bushland as the population grows in western Sydney. The program has delivered several significant conservation outcomes and now protects 320 hectares of land.

In the first year, program funds helped purchase a significant addition to Wianamatta Regional Park at Cranebrook, near Penrith. This property, of over 180 hectares, protects a treasure trove of threatened vegetation, plant and animal species.

In 2010, the program funded the first biobank site in NSW at Douglas Park. The landowner protected 80 hectares of high quality vegetation in perpetuity through an agreement on the title of the land. In addition, funds were paid into a trust to ensure the best management actions for conservation would be carried out. Management is now well under way with fencing completed and weeds being removed. The landowners are pleased with all the work and are enjoying watching the site regenerate.

This year the program has funded another biobank site through securing 60 hectares of outstanding bushland and koala habitat at the historic Beulah property near Appin. With combined funding from the program and the Historic Houses Trust of NSW (HHT), the HHT purchased the property to restore its biodiversity and heritage values.

These outcomes are possible through this NSW Government program, which includes a conservation fund to offset the impacts of urban development in the Growth Centres of western Sydney. The program ensures that where vegetation clearing cannot be avoided to provide for Sydney's future housing needs, there will also be a continued increase in the area protected through national parks and private land conservation agreements in the Sydney Region.

The Growth Centres Biodiversity Offset Program is an innovative solution in an area of major land use change and population growth. I invite you to find out more about the program through this annual report and by visiting www.environment.nsw.gov.au/biocertification/growthcentres.htm.

Lisa Corbyn
Chief Executive
Office of Environment and Heritage

1 About the program

The Growth Centres Biodiversity Offset Program aims to permanently protect some of the best remaining bushland in western Sydney and surrounding regions. Bushland is protected through the program by acquiring land for new reserves from willing landowners and funding the establishment of perpetual conservation agreements on private land.

In the three years that the program has been operating, it has protected 320 hectares of land. This land contains:

- 223 hectares of threatened ecological communities
- 55 hectares of critically endangered Cumberland Plain Woodland
- seven threatened plant populations
- habitat for six recorded threatened fauna species.

The outcomes achieved through the program demonstrate how the trend of loss of small fragments of vegetation within the Growth Centres can be turned around and can contribute to a substantial conservation gain.

Bush regenerators controlling weeds on the St Mary's Towers biobank site. Photo: OEH.

OEH staff provided information on the plants and animals at Beulah during the Appin Bicentenary open day in May 2011. Photo: OEH.

1.1 Background

The Growth Centres Biodiversity Offset Program was established in 2008 as part of a package of conservation measures delivered by the NSW Government to offset the impacts on biodiversity that are occurring as Sydney's Growth Centres are developed.

An estimated 180,000 housing lots will be released in the Growth Centres of Western Sydney over the next 30–40 years. *State Environmental Planning Policy (Sydney Region Growth Centres)* (referred to as the Growth Centres SEPP) was gazetted in 2006 to provide a planning framework for this development.

In 2007, the Growth Centres SEPP became the first land use plan in NSW to be granted biodiversity certification. The Minister for the Environment may certify a plan under the *Threatened Species Conservation Act 1995* (TSC Act) if he or she is satisfied that there will be an overall improvement in, or maintenance of, biodiversity values. The certification of the Growth Centres SEPP was re-conferred in 2008 through Part 7 of Schedule 7 of the TSC Act.

The purpose of certification is to assess biodiversity values and resolve conservation issues early in the planning process. Certification provides for a more streamlined and cost effective land release process than the process required for site-by-site assessment.

Certification also enables the NSW Government to be more strategic in meeting its goals for biodiversity conservation. It is a move away from the 'death by a thousand cuts' scenario for biodiversity in which site-focused decisions are made in isolation and late in the development process. By pooling the offset resources, the largest and best remaining bushland on and around the Cumberland Plain can be targeted for conservation.

The Growth Centres SEPP was certified on the basis that:

- 2,000 hectares of high quality vegetation would be protected in the Growth Centres
- a $530-million conservation fund (in 2005–06 dollar values and subject to indexing) would be established by the NSW Government over a 30–40 year period. This funding is derived partly from a special infrastructure contribution applying to development in the Growth Centres and partly from general government revenue.

Of the $530 million in conservation funding:

- **$132.5 million (25%) will be spent in the Growth Centres** to purchase areas of land identified in the Growth Centres SEPP. This land is being acquired by the NSW Department of Planning and Infrastructure.
- **$397.5 million (75%) will be spent outside the Growth Centres**, targeting the largest and best vegetation remnants for reservation or conservation agreements. These funds provide the revenue for the **Growth Centres Biodiversity Offset Program.**

The program assists the NSW Government in:

- achieving better outcomes for biodiversity
- streamlining planning decisions.

1.2 Program funding

The biodiversity certification of the Growth Centres SEPP requires funding for the program to be allocated annually at the same rate at which development is expected to occur in the Growth Centres. Funding projections are therefore calculated annually. These will vary from year to year, as they are based on the predicted lot yields in the Growth Centres and an index which accounts for changing land values. There is also a correction applied for any difference in predicted and actual lot yields in previous years. The amount of the projected funding allocation for the next 10 years is shown in Table 1.

The total funding for the program when measured in 2010–11 dollar values is $337,876,000 (see Table 1). This is less than $397.5 million because the land value index determined by the Department of Planning and Infrastructure has fallen in the Growth Centres by 15% since 2005–06. The use of the land value index is to ensure the same purchasing power of funds for the life of the program. If the land value index increases again, the value of the program's funding will increase. In either instance, the total program's funding will remain equivalent to $397.5 million when measured in 2005–06 dollar values. This funding will be completed in the year that the last lots are expected to be released in the Growth Centres.

Table 1: Projected funding for the next ten years of the program

Funding received			
Financial year	**Funds received ($2005–06 $ values)**	**Indexed funds received* ($ values at receipt)**	**Cumulative proportion of total funding (%)**
2008–09	917,647	780,000	0.23
2009–10	1,409,606	1,198,000	0.59
2010-11	2,269,735	1,930,000	1.16
Subtotal: funds received	**4,596,988**	**3,908,000**	**1.16**
Future funding			
Financial year	**Future funding ($2005–06 $ values)**	**Indexed future funding ($2011–12 $ values)**	**Cumulative proportion of total funding (%)**
2011–12	1,852,340	1,575,000	1.62
2012–13	3,725,346	3,167,000	2.56
2013–14	4,902,696	4,167,000	3.79
2014–15	5,431,625	4,617,000	5.16
2015–16	8,364,456	7,109,000	7.26
2016–17	9,067,352	7,707,000	9.54
2017–18	9,945,971	8,455,000	12.05
2018–19	11,263,900	9,575,000	14.88
2019–20	14,558,723	12,375,000	18.54
2020-21	17,524,942	14,896,000	22.95
2021–22 – End of program	306,265,661	260,325,000	100
Subtotal: future funding	**392,903,012**	**333,968,000**	**98.84**
Total program funding	**397,500,000**	**337,876,000**	**100**

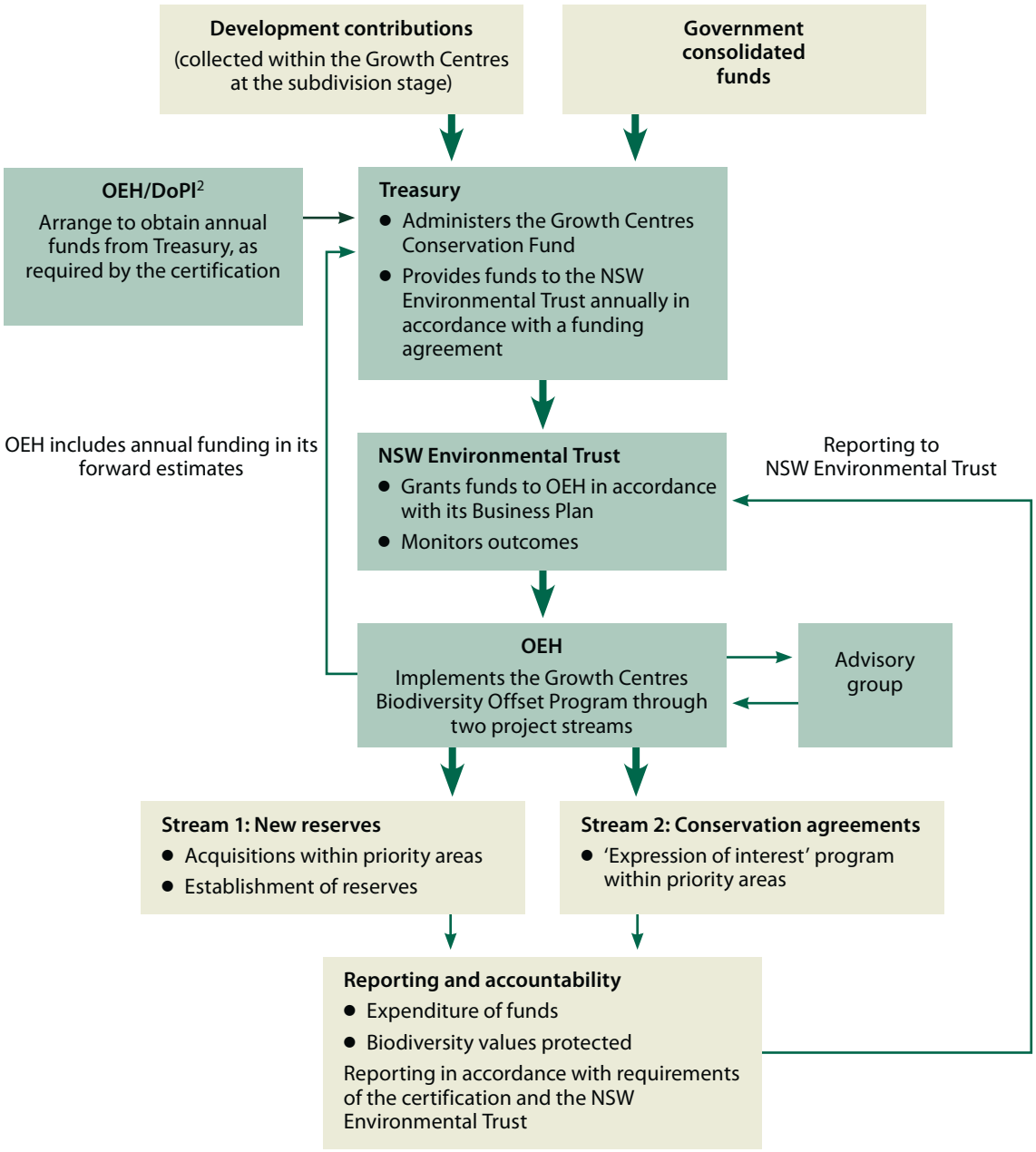
*Funding is calculated in 2005–06 dollar values and then indexed each year for changes in land values. A 'land value index' of -15%, as determined by the Department of Planning and Infrastructure, has been applied to the funds received from 2008–09 to 2010–11 and has also been applied to future funding projections.

How the program funds are administered

The NSW Environmental Trust provides an annual grant to the NSW Office of Environment and Heritage (OEH)[1] to implement the program (see Figure 1). The Trust is an independent statutory body established under NSW law to support and supervise the expenditure of grants. Chaired by the Minister for the Environment, members include the Chief Executive of OEH and representatives from the Local Government and Shires Associations, the Nature Conservation Council and NSW Treasury.

A review of the program in late 2011 will consider the ongoing suitability of these financial arrangements, and the program's progress in delivering the planned biodiversity offsets.

Figure 1: Administration of funds and program structure

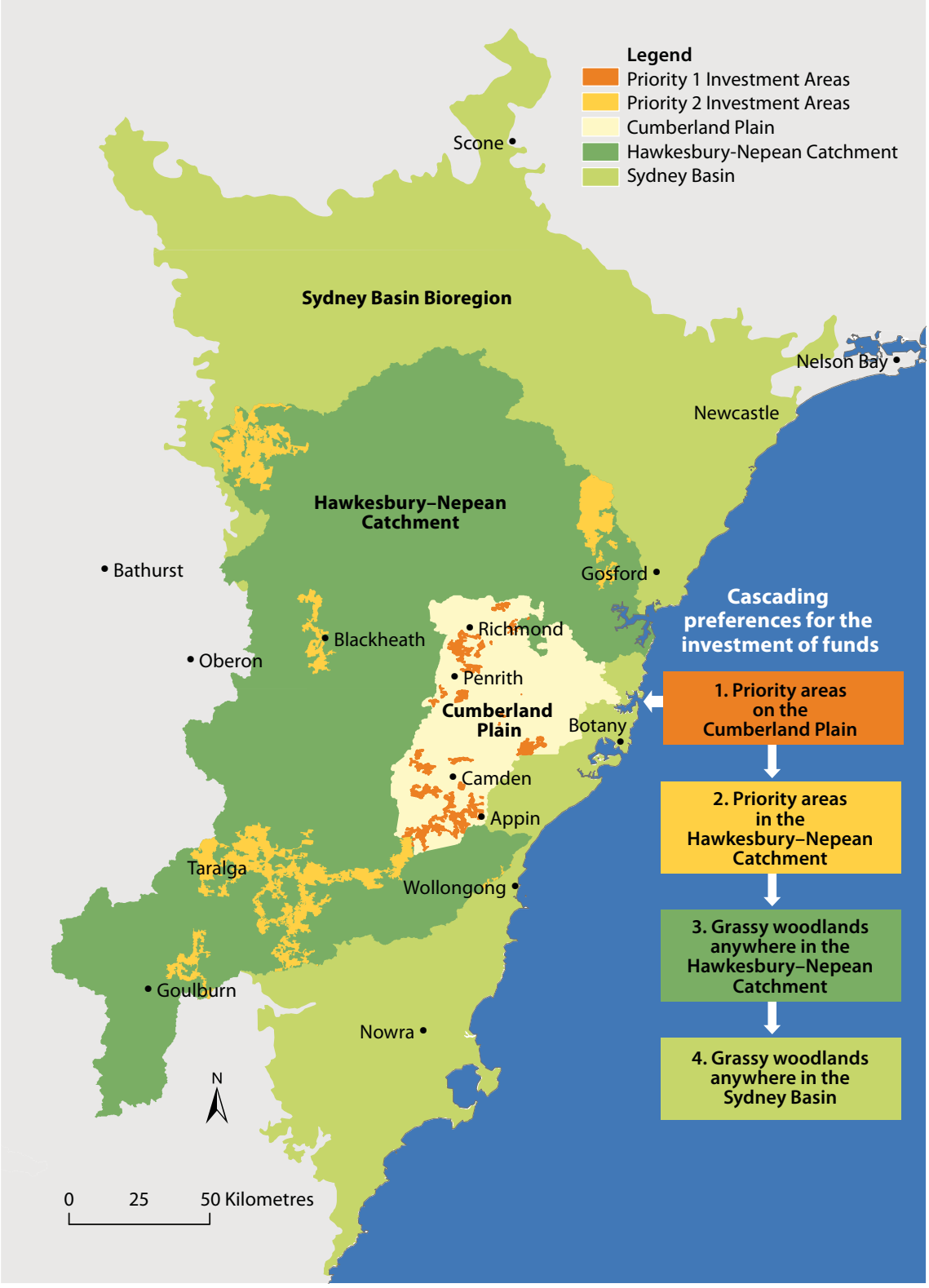


1. The Office of Environment and Heritage NSW was previously known as the Department of Environment, Climate Change and Water.
2. DoPI is the Department of Planning and Infrastructure.

1.3 Where the program operates

The focus areas for the program are specified in the Growth Centres SEPP's biodiversity certification. These areas are shown in Map 1 as a series of preferences.

Map 1: Areas of program operation



Priority investment areas

Biodiversity certification requires that, as a first preference, program funds should be invested in the priority areas on the Cumberland Plain that have been identified in the 2006 Hawkesbury–Nepean Catchment Action Plan.

If no suitable, cost effective lands are available in the areas of first preference, priority areas in the broader Hawkesbury–Nepean catchment are considered. If this option is not available, funding can be spent on conserving grassy woodlands anywhere in the Hawkesbury–Nepean catchment and then the Sydney Basin, respectively.

To date, all the offsets funded through the program have been located in the first preference investment areas on the Cumberland Plain.

In the priority investment areas, the selection of land suitable for protection is guided by criteria in the certification. Preference will be given to protecting the largest remnants of intact vegetation with the greatest potential for long-term retention of biodiversity values. Factors such as the conservation values present, the size and landscape context of the land and the cost effectiveness of the investment are considered.

1.4 How the program works

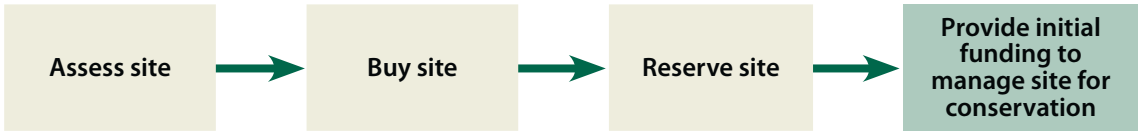
Through the program, areas of conservation value are protected by voluntarily acquiring land for reservation or establishing perpetual conservation agreements (such as biobanking agreements) with willing landowners.

Through the program, large remnants of intact vegetation like the Cumberland Plain Woodland on the Beulah biobank site are protected. Funding for Beulah will ensure that threats such as invasive weeds can be managed to maintain the good condition of the bushland. Photo: OEH.

Reserve acquisition

Reserve acquisition is the highest priority for the program when a property has suitable conservation values, is of a sufficient size or adjoins an existing reserve and can be managed cost effectively by the National Parks and Wildlife Service (NPWS). If such a property is available for purchase, OEH will assess the priority of the purchase and, if warranted and agreed to by the NPWS, will proceed with the acquisition. Land will only be purchased from willing sellers.

Funding will be provided over the first five years following the acquisition of new reserves to manage threats to biodiversity values. Funding over a longer period may be warranted if establishment actions are not completed in the first five years. Such actions may include management planning, fencing, managing weeds, removing rubbish and track maintenance.



Reserve acquisition and establishment
Buying properties to create new reserves or expanding existing reserves

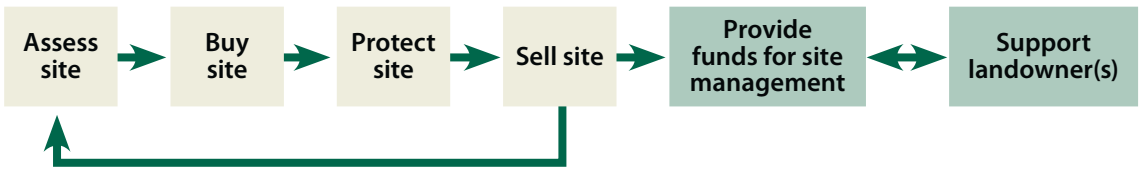
Conservation agreements

Conservation agreements are a priority for properties that have suitable conservation values but are too small to be managed as public reserves, or for properties where the landowner is not interested in selling. The preferred conservation agreement for use in the program is a biobanking agreement, that is, an agreement made with landowners under the NSW Government's Biodiversity Banking and Offsets Scheme (BioBanking Scheme). Biobanking agreements provide permanent security for the land and funding for ongoing management and monitoring. Other types of perpetual conservation agreements could also be used by the program in exceptional circumstances.

The advantages of biobanking agreements compared with reserve acquisitions is that they can have a lower cost per hectare and all future management costs are secured up front. On the other hand, biobank sites remain in private ownership and public access is usually not available.

Conservation agreements with willing landowners

In some cases OEH will enter into a partnership with other government authorities to establish biobanking agreements on high conservation value properties that are for sale but are not suitable for reservation. In these cases, OEH will fund the appropriate government authority to purchase the land. A biobanking agreement will be established on the property, which will then be sold at a later date to a new owner who will manage the land for conservation.



Conservation agreements through a partnership
Buying, establishing conservation agreements on, and selling high conservation value properties

1.5 Program commitments

The program is committed to implementing outcomes for two statutory instruments:

1. Biodiversity certification of the Growth Centres SEPP
2. the Edmondson Park Conservation Agreement.

Biodiversity certification of the Growth Centres SEPP

The program is committed to allocating funds each year to purchase reserves or establish conservation agreements in the locations, and in accordance with the criteria, specified by the certification. These locations and criteria are described in previous sections.

Edmondson Park Conservation Agreement

The Edmondson Park Conservation Agreement was signed by the Australian and NSW governments in 2009, pursuant to the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. The agreement provides Commonwealth approval for development of the Edmondson Park precinct in the South West Growth Centre subject to a number of conditions. These conditions include protecting 72 hectares of the Commonwealth-listed ecological community 'Cumberland Plain Shale Woodlands and Shale Gravel Transition Forest' (known as Commonwealth-listed Cumberland Plain Woodland) by August 2012 as a biodiversity offset. This timeframe may be extended with Commonwealth approval if there is insufficient funding in this period or suitable properties are not available.

Forty-eight hectares of critically endangered Commonwealth-listed Cumberland Plain Woodland have been protected by the program to date in accordance with the Edmondson Park Conservation Agreement. This protected area includes this stand of forest red gums and ironbarks on the St Mary's Towers biobank site. Photo: OEH.

2 What we have achieved to date

In its first three years of operation (2008–09 to 2010–11) the program has:

- assisted in the purchase of a 180-hectare addition to Wianamatta Regional Park at Cranebrook, near Penrith
- funded the fencing of the Cranebrook reserve to prevent illegal damage
- established the state's first biobank site at St Mary's Towers, Douglas Park
- jointly funded the purchase of the historic Beulah property near Appin by the Historic Houses Trust and protected its important bushland through a biobanking agreement.

Protecting native vegetation

In the three years that the program has been operating, 300 hectares of native vegetation have been protected (Table 2). Of this vegetation, 223 hectares comprise threatened ecological communities listed under state legislation. In accordance with the program's aims, the protected areas are some of the largest areas of high conservation value bushland left in western Sydney.

Protecting threatened animals and plants

Valuable habitat for six threatened animal species and seven species of threatened plants has now been protected using funds from the program. The populations of three of the threatened shrubs (*Dillwynia tenuifolia*, *Micromrytus minutiflora* and *Pultenaea parviflora*) are among the largest recorded for those species.

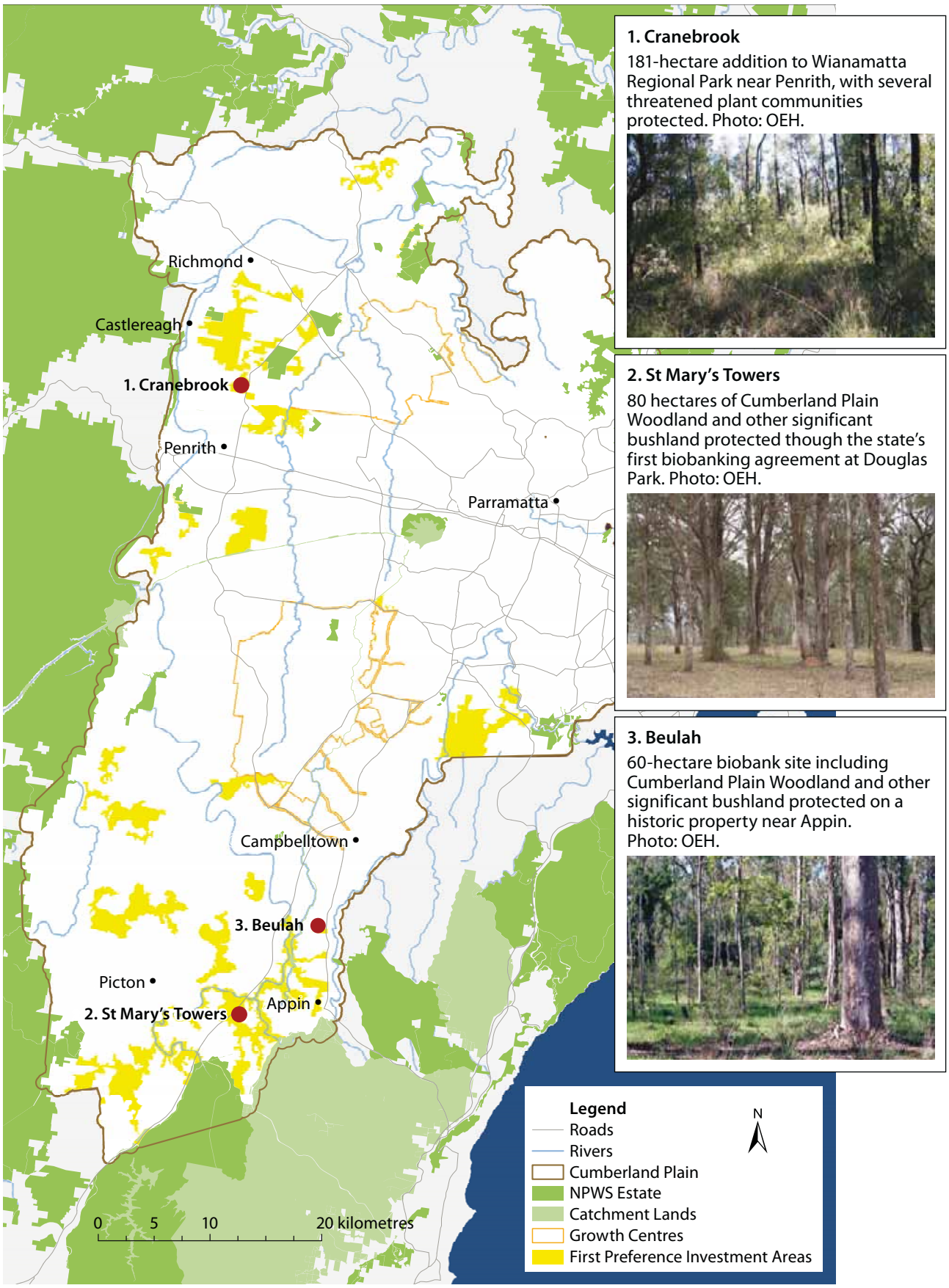
Protecting Commonwealth-listed Cumberland Plain Woodland

Funds from the program have protected 48.8 hectares of Commonwealth-listed Cumberland Plain Woodland, in accordance with the Edmondson Park Conservation Agreement. Of this vegetation, 33.8 hectares have been protected on the St Mary's Towers biobank site and an additional 15 hectares have been protected on the Beulah site.

As indicated in section 1.5, the program is committed to protecting 72 hectares of Cumberland Plain Woodland as an offset under the Edmondson Park Conservation Agreement. It is planned to protect the remaining 23.2 hectares of this ecological community in the next year.

More detail on the conservation outcomes achieved in 2010–11 is provided in section 2.1.

Map 2: Vegetation and habitat protected by the program to date



1. Cranebrook

181-hectare addition to Wianamatta Regional Park near Penrith, with several threatened plant communities protected. Photo: OEH.

2. St Mary's Towers

80 hectares of Cumberland Plain Woodland and other significant bushland protected though the state's first biobanking agreement at Douglas Park. Photo: OEH.

3. Beulah

60-hectare biobank site including Cumberland Plain Woodland and other significant bushland protected on a historic property near Appin. Photo: OEH.

Table 2: Conservation outcomes for the program to date

Location		1. Cranebrook	2. St Mary's Towers	3. Beulah	
Date protected		2009	2010	2011	
Protection mechanism		Reservation	Biobanking agreement	Biobanking agreement	
Size of protected area		181.3 hectares	80.1 hectares	59.5 hectares	
Vegetation types	**Status TSC Act***	**Area (ha)**	**Area (ha)**	**Area (ha)**	**Total (ha)**
Cumberland Plain Woodland	CE		35.7	19.4	**55.1**
Shale Sandstone Transition Forest	E		32.8	40.1	**72.9**
Cooks River Castlereagh Ironbark Forest	E	41.2			**41.2**
Shale Gravel Transition Forest	E	3.5			**3.5**
Castlereagh Swamp Woodland	E	50.5			**50.5**
Castlereagh Scribbly Gum Woodland	–	66.1			**66.1**
Sydney Hinterland Transition Woodland	–		3.0		**3.0**
Hinterland Sandstone Gully Forest	–		8.6		**8.6**
Cleared land	–	20.0			**N/A**
			Total vegetation protected		**300.7**
Threatened animals	**Status TSC Act***	**Present**	**Present**	**Present**	**No. of sites protected**
Cumberland Plain land snail	E	Y	Y	Y	**3**
Eastern freetail-bat	V	Y			**1**
Grey-headed flying-fox	V		Y		**1**
Koala	V			Y	**1**
Large-eared pied bat	V		Y		**1**
Little lorikeet	V		Y		**1**
Threatened plants	**Status TSC Act***	**Present**	**Present**	**Present**	**No. of sites protected**
Nodding geebung *(Persoonia nutans)*	E	Y			**1**
Bynoe's wattle (*Acacia bynoeana)*	V	Y			**1**
Allocasuarina glareicola	E	Y			**1**
Dillwynia tenuifolia	V	Y			**1**
Grevillea juniperina subsp. *juniperina*	V	Y			**1**
Micromyrtus minutiflora	V	Y			**1**
Sydney bush pea *(Pultenaea parviflora)*	V	Y			**1**

Notes: CE = critically endangered; E = endangered; TSC Act = Threatened Species Conservation Act 1995; V = vulnerable.

2.1 Conservation outcomes for 2010–11

In May 2011, the program funded its second biobanking agreement to protect nearly 60 hectares of outstanding bushland on a property called Beulah near Appin. Beulah contains an original 1830s home which will be restored along with other items of heritage value by the Historic Houses Trust of NSW. The homestead and immediate curtilage is protected by a permanent conservation order under the *Heritage Act 1977*. The biobanking agreement ensures that the important biodiversity values on the property are also recognised and protected in perpetuity.

The property was selected for protection as it contained some of the best Cumberland Plain Woodland remaining in private ownership. Opportunities to conserve and actively manage vegetation remnants on the Cumberland Plain of a similar size and condition to those on this property are limited.

See the following case study for more information.

In addition to funding the Beulah biobank site, all remaining biodiversity credits from the St Mary's Towers biobank site, which was established with funding from the program in May 2010, have been purchased.

Fencing of the St Mary's Towers biobank site has been completed and bush regenerators are enhancing the quality of the bushland by controlling weeds.

The landowners are pleased with the work that has been done and are enjoying watching the site regenerate. Staff working on the program will continue to support the owners by providing advice on actions to conserve the site.

Conservation outcomes achieved through the program in 2010–11 include:

- establishing a biobanking agreement for the threatened bushland on the Beulah site. The agreement permanently protects:
  - nearly 60 hectares of native vegetation
  - two vegetation types which are listed as threatened under state and Commonwealth legislation
  - known habitat for two threatened fauna species – the Cumberland Plain land snail and the koala
  - potential habitat for an additional 20 threatened animal species, including the Commonwealth- and state-listed swift parrot, powerful owl and grey headed flying fox.
- purchasing the remaining biodiversity credits that were generated from the establishment of the St Mary's Towers biobank site.

Cranebrook , St Mary's Towers and Beulah provide habitat for a number of threatened animals and plants (see opposite page). From left to right: Broad-headed snake *Hoplocephalus bungaroides* (photo: S. Cohen, OEH); *Dillwynia tenuifolia* (photo: OEH); large-eared pied bat *Chalinolobus dwyeri* (photo: M. Schulz); grey-headed flying foxes *Pteropus poliocephalus* (photo: M. Schulz); *Micromyrtus minutiflora* (photo: OEH); koala *Phascolarctos cinereus* (photo: M. Schulz); *Allocasuarina glaricola* (photo: OEH); powerful owl *Ninox strenua* (photo: N. Williams); the lesser long-eared bat *Nyctophilus gouldi* (photo: M Schulz); swift parrots *Lathamus discolor* (photo: K. Stepnell).





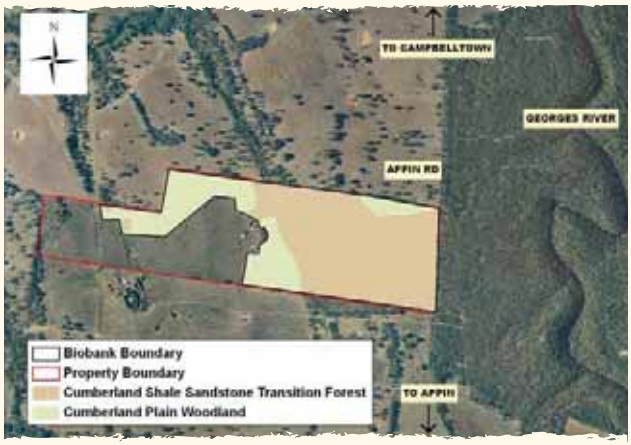





Case study: Beautiful Beulah conserved for future generations

Beulah is a 90-hectare historic property near Appin in South West Sydney which became available for purchase in 2010. The property contains outstanding biodiversity values, including nearly 20 hectares of critically endangered Cumberland Plain Woodland, 40 hectares of endangered Shale Sandstone Transition Forest and known koala habitat.

The property is also a significant heritage site containing an original 1830s home associated with the family of the explorer Hamilton Hume (see cover photo). Due to its historical significance, the Historic Houses Trust of NSW (HHT) wished to purchase the property through its Endangered Houses Program, but had limited funds.



The Beulah biobank site.

In September 2010, the HHT and OEH established a funding agreement which enabled the property to be purchased by the HHT for $2 million. The program provided the HHT with $600,000 to assist in the purchase. This amount was an agreed 'lost opportunity cost' associated with foregoing any future grazing or development rights. The HHT plans to restore the heritage items on the property to their former glory and will then sell the property, with the biobanking agreement in place, to a third party.

The program also provided funding to establish the biobanking agreement which was signed in May 2011. The agreement provides permanent conservation protection and funds for management of the 60 hectares of significant bushland on the property.


This historic sandstone bridge over Woodhouse Creek on the Beulah biobank site was constructed in the 1830s. It is the only one of its type in Australia to retain a full set of stringer girders. Photo: OEH.

Funding the Beulah biobank site

Financial summary	
In-perpetuity management costs (deposited in the Biobank Trust Fund)	$1,029,467
Payment to landowner for 'lost opportunity costs' and legal costs	$600,000
Cost to program*	**$1,629,467**
GST	$162,947
Total cost (incl. GST)	**$1,792,414**

***Note:** The purchase of 526 biodiversity credits is occurring in several instalments – 26 credits were purchased in 2010–11 for $50,886 (excluding GST) and the remaining 500 credits will be purchased in 2011–12 and 2012–13 for $978,581.

The BioBanking Scheme addresses the decline of biodiversity by giving land with high conservation values an economic value by creating biodiversity credits for the land. These credits can then be sold on the open market.

The establishment of the Beulah biobank site created 526 biodiversity credits. All the credits will be purchased with funds from the program for $1,029,467 (excluding GST). These funds will be paid into the Biobank Trust Fund to cover the cost of managing the biobank site in perpetuity. The purchased credits will also be 'retired' so that they can not be used for any other offsets.

Management of the biobank site

The BioBanking Scheme gives landowners who may otherwise have considered subdividing or clearing their land a conservation alternative, offering them ongoing management funds to conserve their bushland in perpetuity.

Under the agreement, the HHT and any future landowner can continue to use the bushland for passive recreation such as bushwalking and bird watching, but will be unable to develop or use the site for livestock grazing. The landowner is responsible for managing the biodiversity on the site by removing rubbish, installing new fences, controlling weeds and feral animals, and revegetating previously grazed land.

The landowner receives funding each year for commercial contractors to undertake this work.

At Beulah, this funding is between $50,000 and $100,000 per year in the first five years for primary treatment, decreasing over time to an in-perpetuity payment of between $20,000 and $50,000 per year.

The Beulah bushland is currently degraded due to infestation by the environmental weeds African olive and bridal creeper. Funding will ensure that these weeds are treated and that the site remains as a showcase of native species diversity into the future.

Bush regenerator contractors discussing weed control options for the site. Photo: OEH.

Conserving threatened bushland

The biobank site:

- contributes to the conservation of threatened bushland on the Cumberland Plain, which is characterised by high levels of vegetation fragmentation and low levels of protection
- increases the protected area of two threatened ecological communities: Cumberland Plain Woodland and Shale Sandstone Transition Forest – currently, less than 1% of the pre-1750 area of each of these communities occurs in formal conservation reserves
- protects an important local variant of Shale Sandstone Transition Forest dominated by spotted gum (*Corymbia maculata*) which is only recorded in a few areas in western Sydney, such as Hoxton Park, Werombi south to the Oaks, and Appin.

Vegetation summary		
Vegetation community	**TSC Act status**	**Area (hectares)**
Cumberland Plain Woodland (MG condition)	CE	18.2
Cumberland Plain Woodland (L condition)	CE	1.2
Shale Sandstone Transition Forest (MG condition)	E	40.1
Total		**59.5**

Notes: CE = Critically endangered; E = Endangered.
TSC Act = *Threatened Species Conservation Act 1995*.
Condition: MG = moderate–good; L = low.

The spotted gum forest at Beulah is an unusual variation of the endangered ecological community known as Shale Sandstone Transition Forest. In *Taken for granted: the bushland of Sydney and its suburbs* (1990), Doug Benson and Jocelyn Howell called for this forest to be conserved. The best portion of this forest will now be permanently protected and managed on the biobank site. Photo: OEH.

Providing habitat for threatened animals

The biobank site provides significant habitat for a number of threatened animals as it forms part of a continuous corridor of vegetation between the Georges and Nepean River catchments. Two threatened species have been recorded on or near the property – the koala and the Cumberland Plain land snail.

Twenty other threatened species may either occur on the site or return to the property following weed control work and restoration of habitat. These species include the Commonwealth- and state-listed swift parrot, powerful owl and grey-headed flying-fox.

3 Clearing in the Growth Centres

Clearing of vegetation in the 'protected lands'

The biodiversity certification of the Growth Centres SEPP requires a minimum of 2,000 hectares of 'existing native vegetation' identified in Maps 3 and 4 to be retained and protected in the Growth Centres.

The certification anticipated that this vegetation would be retained in areas identified as the 'protected lands' (Growth Centres Commission 2007, *Growth Centres Conservation Plan – Exhibition Draft)*. Development controls apply to these areas to control vegetation clearing (see Part 6 of the Growth Centres SEPP). Where clearing is permitted with consent, additional vegetation will be protected or revegetation undertaken to achieve the 2,000-hectare target.

When it was certified in 2007, 1,980.7 hectares of 'existing native vegetation' were protected by the Growth Centres SEPP (see Table 3).

In 2011, 1,975.7 hectares remain protected. As indicated in Table 3, 5.1 hectares of protected vegetation have been cleared since the time of certification. Of this amount, 0.6 hectares were cleared in the last year.

There is currently a gap of 24.3 hectares between the amount of vegetation protected in the Growth Centres and the 2,000-hectare target set by the biodiversity certification. Most of this shortfall (ie; 19.3 hectares) occurred as a result of clearing before the certification was granted in 2007.

As anticipated, this shortfall is being addressed by protecting additional vegetation in the developable lands during planning for Growth Centre precincts. Additional vegetation has already been protected through the planning completed for the North Kellyville, Riverstone West, Alex Avenue, Riverstone and Marsden Park Industrial precincts. The extent of the vegetation protected will be taken into account in next year's report.

Clearing of vegetation in the 'developable lands'

Vegetation amounting to 1,765.1 hectares existed at the time of certification in the areas that are being developed in the Growth Centres (the 'developable lands'). This vegetation was identified at the time of certification as being less viable for long-term conservation as it occurs in patches less than 4 hectares in size or is exposed to a high threat of future degradation. The certification envisaged the loss of all of this vegetation during the development of the Growth Centres. Actual clearing however may be less, with some native vegetation being retained through detailed local planning. All losses will be offset by the acquisition and establishment of new reserves in the Growth Centres and through the land protected by this program.

As indicated in Table 3, the cumulative total of 'existing native vegetation' that has been cleared in the 'developable lands' since the time of certification is 47.3 hectares. Of this amount 1.3 hectares have been cleared in the last year.

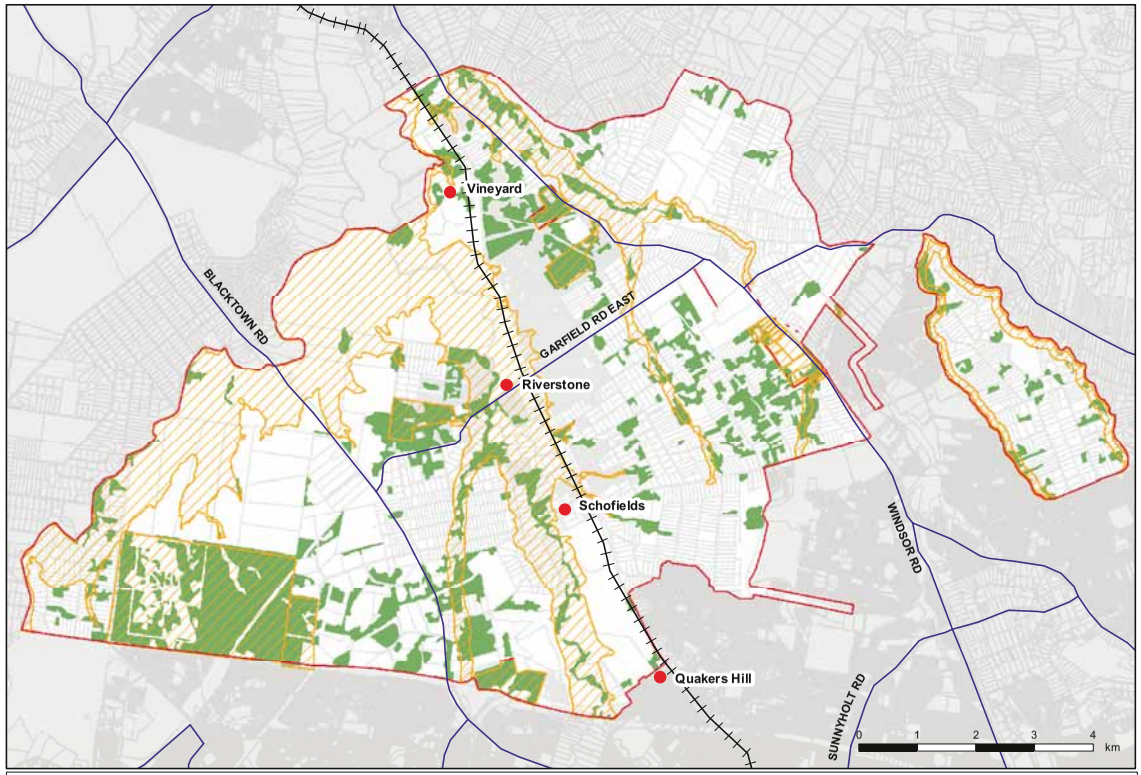
Table 3: Vegetation clearing in the Growth Centres

		2007	2011	2011	2011
Land class	**Vegetation community**	**Vegetation present (hectares) [1]**	**Vegetation present (hectares) [2]**	**Vegetation cleared in last year (hectares) [3]**	**Loss of vegetation since 2007 (hectares) [4]**
Protected	Castlereagh Swamp Woodland	35.6	35.6	0.0	0.0
Protected	Cooks River Castlereagh Ironbark Forest	140.4	140.4	0.0	0.0
Protected	Cumberland Plain Woodland	664.4	662.3	–0.3	–2.1
Protected	Moist Shale Woodland	0.6	0.6	0.0	0.0
Protected	Shale Sandstone Transition Forest	37.7	37.6	0.0	–0.1
Protected	Shale Gravel Transition Forest	390.7	390.7	0.0	0.0
Protected	River-Flat Eucalypt Forest	711.3	708.5	–0.3	–2.9
Protected	**Total**	**1980.7**	**1975.7**	**–0.6**	**–5.1**
Developable	Castlereagh Swamp Woodland	0.0	0.0	0.0	0.0
Developable	Cooks River Castlereagh Ironbark Forest	26.0	23.8	0.0	–2.1
Developable	Cumberland Plain Woodland	1252.2	1224.5	–1.3	–27.7
Developable	Moist Shale Woodland	0.0	0.0	0.0	0.0
Developable	Shale Sandstone Transition Forest	66.2	66.2	0.0	0.0
Developable	Shale Gravel Transition Forest	221.5	220.3	0.0	–1.3
Developable	River-Flat Eucalypt Forest	199.2	183.0	0.0	–16.1
Developable	**Total**	**1765.1**	**1717.8**	**–1.3**	**–47.3**
Total	**Vegetation**	**3745.8**	**3693.4**	**–1.9**	**–52.4**

Notes:

1. This column identifies the amount of 'existing native vegetation' present in 2007, approximating the time of certification.
2. This column identifies the amount of 'existing native vegetation' identified in March 2011 using remote sensing analysis.
3. This column identifies the amount of 'existing native vegetation' cleared between February 2010 and March 2011.
4. This column identifies the cumulative amount of 'existing native vegetation' cleared between 2007, approximating the time of certification, and March 2011.

Map 3: North West Growth Centre



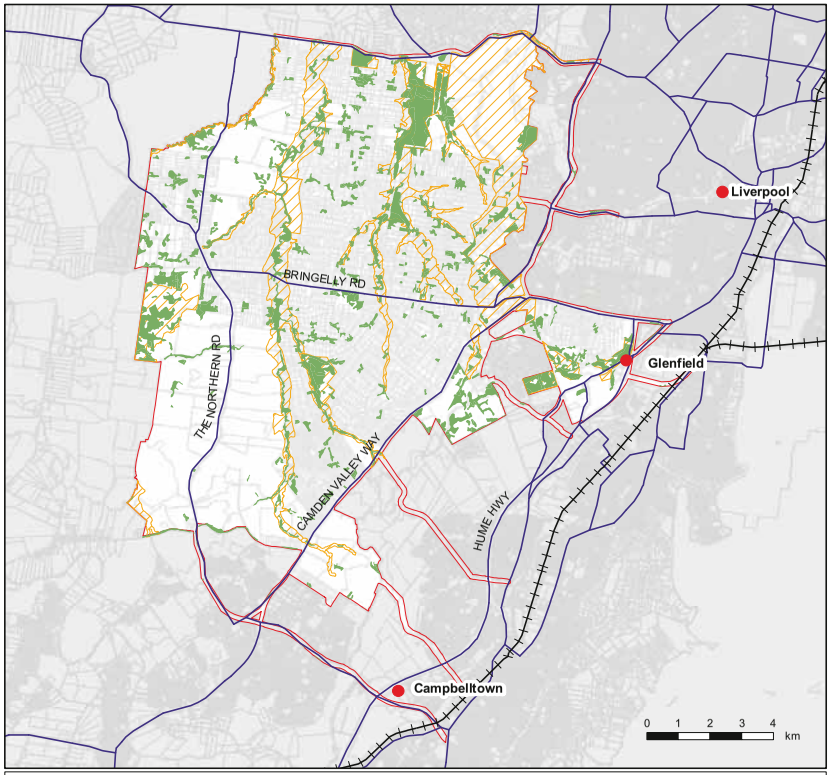
Legend

- NW Growth Centre Boundary
- NW Protected Lands
- Existing Native Vegetation

North West Growth Centre
Protected Lands

N

Map 4: South West Growth Centre



Legend

- SW Growth Centre Boundary
- Existing Native Vegetation
- SW Protected Lands

South West Growth Centre
Protected Lands

N

4 Financial report

A total of $8,897 remained unspent at the end of the 2009–10 year and was transferred for expenditure in 2010–11.

Income

The allocation of new funding for the program for 2010–11 was $1,930,000. This allocation is consistent with the rate of predicted lot production in the Growth Centres, as required by the biodiversity certification of the Growth Centres SEPP. In 2010–2011, 1,264 lots were predicted to be released, which is equivalent to 0.5744% of the total remaining lots in the Growth Centres. The same percentage of the total remaining funding for the program was allocated for this year with an adjustment for the change in land values since the time of certification (see Appendix 1).

In addition to the annual allocation of funding from Treasury, the Environmental Trust provided $80,000 as an advanced payment to the program to assist in the purchase of the Beulah property. This advance will be re-paid to the Trust in 2011–12. Total income for the program in 2010–11 was $2,010,000.

Expenditure

Most of the funding available in 2010–11 was spent on the program's three investments to date; the Wianamatta Regional Park addition at Cranebrook, St Mary's Towers biobank site and the Beulah biobank site.

The administrative expenses of the program comprise the salaries, on-costs and expenses of the program team (2.6 staff), such as materials for the biobanking assessment, travel and training.

Table 4: Financial statement

Balance at 1 July 2010	**Funds ($)**
Opening balance	**8,897**
Income	
Grant from Environmental Trust for 2010–11	1,930,000
Additional grant from Environmental Trust for Beulah property purchase	80,000
Total income	**2,010,000**
Expenses	
Cranebrook: repayment to OEH for property purchase	500,000
St Mary's Towers biobank site: purchase of 207 credits	545,541
Beulah biobank site: grant to HHT for property purchase	600,000
Beulah biobank site: purchase of 26 credits	50,886
Administration: salaries for 2.6 staff with 26% on-costs	321,875
Administration: miscellaneous expenses	1,566
Total expenses	**2,019,868**
Balance at 30 June 2011	
Closing balance	**–971**

Appendix 1

Calculation of the program's funding allocation for 2010–11

Annual allocations to the program are calculated based on:

- the proportion of total remaining lot production in the Growth Centres that is expected to occur in a given financial year. The certification ensures that the same proportion of the remaining, unallocated amount of the planned $397.5 million funding is also allocated for that year (refer to measure 22b of the Growth Centres biodiversity certification).
- a land index which converts 2005–2006 dollar values into current dollar values. The land index is calculated using methods described in the Growth Centres Special Infrastructure Contribution Practice Note (GCC 2008). The purpose of the index is to ensure that the conservation funding retains an equivalent ability to purchase land over the years of the program's operation.
- a correction for any difference between the predicted and actual lot yields for the previously completed year.

Table 5 below provides the calculations for the program's funding allocation for 2010–11.

Table 5: Calculation of program funding for 2010–11

Total remaining lot production at start of 2010–11 (Note that this contains both residential and non-residential lot equivalents)	**220,069 lots**
Predicted lot production for 2010–11 (Note that this contains both residential and non-residential lot equivalents)	1,264 lots
Adjustment for difference between actual and predicted lot production from the previous completed year (2008–09)	0 lots
Predicted lot production for 2010–11(adjusted for past actuals)	1,264 lots
Percentage of total remaining lots predicted to be produced in 2010–11 (adjusted for past actuals) (i.e. 1,264 as a percentage of 220,069 lots)	0.5744%
Total remaining unspent funds at start of 2010–11 (2005–06 $ values)	$395,172,747
Allocation for this year in 2005–06 $ values (i.e. 0.5744% of $395,172,747)	$2,269,735
Land index value (converts 2005–06 $ values to current $ values)	-15.00%
Required allocation for 2010–11 in current $ values (i.e. 85% of $2,269,735)	$1,929,275
Total allocation in current $ values (rounded)	**$1,930,000**

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