



INTRODUCTION

The Cobbitty Hills biodiversity corridor is a significant corridor that supports a wide range of native plants and animals, including endangered and vulnerable ecological communities, plants and animals. Remnant vegetation can be found across the area but tends to be concentrated along creeks and watercourses, as well as on hilly terrain that has generally been considered unsuitable for development.

The landscape has changed significantly over time, as a result of clearing for agriculture and development, which means that it is very important to protect remnant vegetation.

The majority of remnant vegetation found in the area is located on privately owned land. This guide has been developed to provide landholders in the Cobbitty Hills area with important information on the value of the bushland found on their property and what key actions can be undertaken to protect the environmental values of this land. In addition, this guide will assist landholders who are interested in protecting and improving the native vegetation on their property, and learning about ways to generate income through conserving this remnant vegetation.





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WHERE IS COBBITTY HILLS?

The Cobbitty Hills region primarily covers the suburbs of Cobbitty and Bringelly, extending from the Nepean River in the south, to Bringelly in the north and from the Northern Road in the east to the Nepean River in the west (Figure 1).

The majority of the study area is within private ownership, with the exception of Cut Hill Reserve and road reserves, which are under Camden Council ownership.

The eastern portion of the corridor falls within the South West Priority Growth Area and has been identified for future residential development to meet State housing targets. This area has undergone a process of biodiversity certification (Certified Area) with some areas (shown in yellow) identified for future conservation (Non Certified Area) based on their environmental values (Figure 2). These areas tend to be located along creeks and watercourses as well as some other high biodiversity value land.

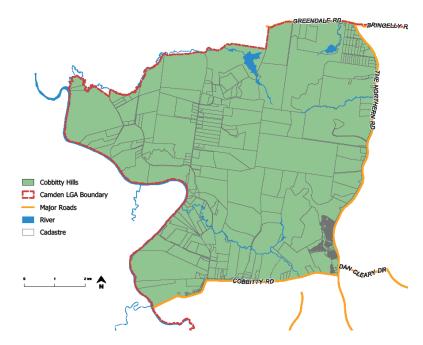


Figure 1: Map indicating the envelope of land part of Cobbitty Hills

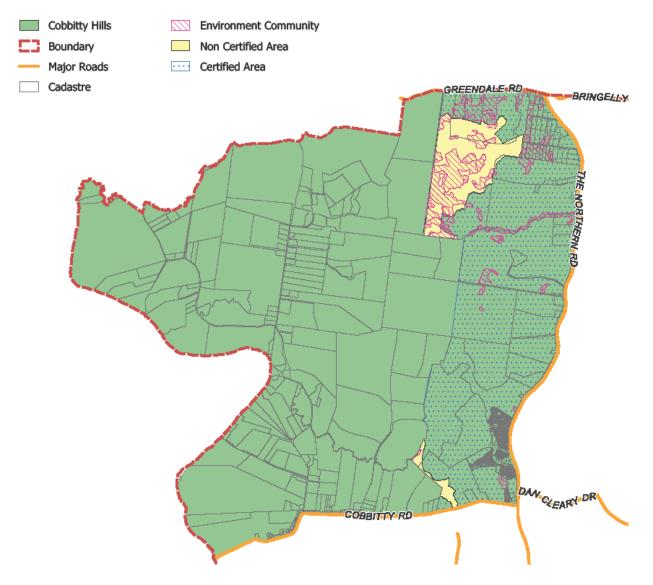


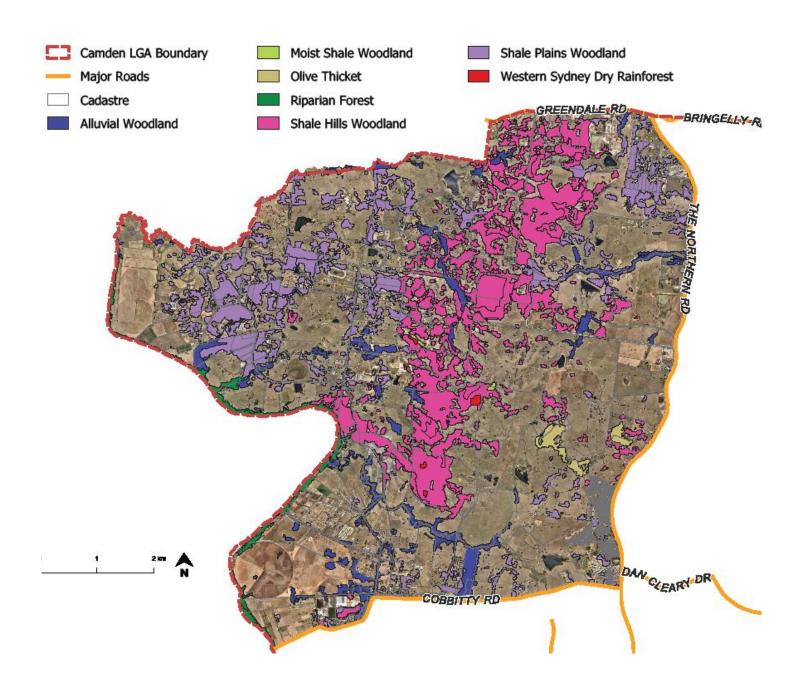
Figure 2: Map indicating the extent of biodiversity certification and areas identified for environmental conservation



WHY IS COBBITTY HILLS IMPORTANT?

The Cobbitty Hills corridor is a significant corridor that supports an abundant biodiversity of native plants and animals. The Cobbitty Hills area contains Cumberland Plain Woodland, which is a vegetation community listed as Critically Endangered under the *NSW Biodiversity Conservation Act 2016* (BC Act), and *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), as well as River-flat Eucalypt Forest, Swamp Oak Floodplain Forest and Moist Shale Woodland (all listed as endangered under the BC Act). Refer to Figure 3 for the distribution of Environmentally Sensitive Land (ESL), including endangered ecological communities.

The Cobbitty Hills area acts as a biodiversity corridor that connects larger habitat patches, allowing movement of native plants and animals that cannot easily move through urban environments. The preservation and enhancement of this corridor is important as larger corridors are able to support a greater amount of resources, which in turn supports more species and larger populations.



The Cobbitty Hills corridor supports a number of threatened plant and animal species, including:

Species and Conservation Status in NSW

Camden White Gum (Eucalyptus benthamii)

Vulnerable



Gang-gang Cockatoo (Callocephalon fimbriatum)

Vulnerable



Little Eagle (Hieraaetus morphnoides)

Vulnerable



Swift Parrot (Lathamus discolour)

Endangered



Species and Conservation Status in NSW

Blue-billed Duck (Oxyura australis)

Vulnerable



Large-eared Pied Bat (Chalinolubus dwyeri)

Vulnerable



Grey-headed Flying Fox (Pteropus poliocephalus)

Vulnerable



Cumberland Plain Land Snail (Meridolum corneovirens)

Endangered







WHAT CAN I DO TO CARE FOR COBBITTY HILLS?

As a local landholder there are things that you can do to make a difference and care for Cobbitty Hills.

Because so much of the vegetation in this area is found on private land, bushland remnants are often fragmented and exist among cleared landscapes. This makes pockets of bushland susceptible to weed invasion and pest animals.

Protect Native Vegetation

One of the simplest and most cost-effective ways to protect habitat is to fence areas of native vegetation. Fencing can provide several benefits, including:

- Creating a physical barrier to exclude stock and restrict the movement of pest animals such as rabbits, foxes and deer;
- Encouraging natural regeneration by minimising disturbance by grazing; and
- Assisting with stock management on the property.

2. Manage Threats

After an area has been fenced it's important that the area is actively managed, and weeds and pest animals are controlled.

3. Improve Vegetation

Revegetation plays an important role in helping to reconnect vegetation and creating more diverse and resilient habitat. Revegetation can be undertaken by allowing natural regeneration to take place, undertaking infill planting amongst existing remnant bushland, or more extensive planting projects that will work to establish new bushland.

Table 1 identifies resources that are currently offered by Camden Council and other Government agencies and consolidates them into one resource for the community to protect and enhance the biodiversity values in Cobbitty Hills. As a landholder, you can use this guide to identify recommended management actions that are relevant and practical to implement on your property.

Recommended management action	Why is this action important?	How can I take action?
Protect and restore Environmentally Sensitive Land (ESL)	This land is crucial for the health of the natural environment, and provides habitat for native plants and animals, including threatened species. Corridors are important as native animals cannot easily move through urban environments. They also provide additional sites for breeding and nesting. Helps to limit habitat fragmentation within the landscape. Controls erosion and improves water quality and availability.	Refer to Figure 3 to determine if your property contains any ESL. Contact Council for a more detailed analysis of the type of ESL and the condition of vegetation (e.g. good to highly modified). Identify and fence off areas of high value, and areas for revegetation and regeneration. Consider establishing a Biodiversity Stewardship Agreement (BSA) to protect any ESL in perpetuity. Information on BSAs is found on the Biodiversity Conservation Trust's website. Refer
Revegetate areas of your property	Creating wildlife corridors using local native plant species will provide 'steppingstones' for local wildlife. Connections throughout the landscape are important for native species, as remnant vegetation is highly fragmented and under pressure due to proximity to growth centre.	Identify and fence off areas for revegetation and regeneration. Prepare the soil and control weeds before sowing seed or planting tube stock. Check on plantings to ensure they are healthy. Take advantage of Council's native plant giveaway held each year at Picnic in the Park (in September). Talk to Greater Sydney Local Land Services (GSLLS) to see if there are any small landholder grants available to assist with weed removal on your land. Contact Council for information about appropriate native plant species for your property, or refer to Council's Native Garden Guide for additional information.
Rehabilitate waterway frontages	Riparian areas are very important and have a range of environmental values. Stabilising and revegetating these areas can help minimise bank erosion and improve water quality.	Where possible install fencing to prevent stock directly accessing waterways. Improve condition of waterway frontages with vegetation. Talk to GSLLS to see if there are any small landholder grants available to assist with weed removal on your land. Contact Council to gain information about appropriate native plant species for your property or refer to Council's Native Garden Guide for additional information.
Control and prevent the spread of environmental weeds	Weeds detrimentally impact native vegetation by degrading areas and providing increased competition for native species. In most cases, these identified weeds outcompete native plants for resources and can take over an area. Removing weeds can lead to native plant regeneration.	Talk to GSLLS to see if there are any small landholder grants available to assist with weed removal on your land. Remove any known 'garden escape' plant species from your property before they spread to natural bushland. Develop a weed control plan based on the weeds on your property. If possible, try to coordinate weed control with your neighbours to maximise effectiveness. Clean machinery and vehicles that have been in weed infested areas to prevent the spread of weeds.
Control and eradicate pest animals	Pest animals found in Cobbitty include foxes, deer, feral pigs, wild rabbits and wild dogs. Pest animals threaten the resources available for our native wildlife, damage native vegetation and spread weeds. Deer also pose a serious safety risk to motor vehicles and can cause serious injury or damage to property. Pest animals cause damage to property by grazing and trampling, while foxes can harm livestock or small domestic animals like chickens.	Contact GSLLS to determine what options and assistance are available to you. GSLLS also periodically hold free training sessions for landholders to bait pest fauna species on your property. Develop a pest control plan based on the pests on your property. If possible, try to coordinate pest control with your neighbours and other organisations to maximise effectiveness.



FINANCIAL INCENTIVES

There are a range of resources and tools available to landholders to help protect and enhance biodiversity within Cobbitty Hills through technical advice and/or financial assistance. This section aims to provide a consolidated list of resources that members of the community can access. Where possible, neighbouring landholders are encouraged to seek advice and coordinate efforts to efficiently reduce threats and improve biodiversity.

Biodiversity Stewardship Agreements

The NSW Government has established a market-based incentive scheme to encourage the conservation of land with biodiversity values called the Biodiversity Offsets Program. Landholders can enter into Biodiversity Stewardship Agreements (BSA) under this program to conserve their land, while also being able to generate and sell biodiversity credits.

BSAs are voluntary agreements made between the Biodiversity Conservation Trust and a landholder to permanently protect and manage an area of land to improve its biodiversity values. The credits generated can then be sold to developers (to offset development), the Biodiversity Conservation Trust and other interested parties. Some of the money generated must be used to fund the ongoing management of the land, however the sale may also generate a profit for the landowner.

To find out if the Biodiversity Offsets Program might be suitable for your property you can visit the Biodiversity Conservation Trust website at www.bct.nsw.gov.au

There are several points to consider with the sale and acquisition of credits as part of the Biodiversity Offsets Program. These are detailed below:

- Credit availability if there aren't many credit holders
 with credits available for a particular species or
 ecosystem type, the prices are likely to be more
 competitive. Some ecosystem credits are naturally rare
 because the vegetation type is highly cleared and few
 sites are suitable for credit creation. For example, Blue
 Gum High Forest in the Sydney Basin bioregion is both
 rare in the landscape and there are few suitable BSA
 sites.
- Credit demand if there is greater demand from developers for credits, the credit prices tend to rise. This has been the case with particular vegetation types in the Sydney Basin, such as Shale Plains Woodland. Since the scheme's inception, Shale Plains Woodland credits have increased significantly.



Biodiversity Stewardship Agreement Case Study

Biodiversity Stewardship Agreements were previously known at BioBanking Agreements under previous State legislation. A landholder in the Cobbitty area was one of the first BioBank Agreement owners in NSW. This landholder traditionally generated income from agriculture and was looking at ways to protect their land, as well as ensuring the financial viability of the farm. The land contained a mix of remnant native vegetation and exotic pastures.

Through the application of the BioBanking Assessment Method and agreement on management actions that would improve the conservation values of the site, the landholder entered into a BioBank Agreement.

The land most likely to generate credits was included in the conservation area, while other parts of the property not subject to the agreement are still able to be used for more traditional agricultural purposes. Through the generation and sale of biodiversity credits, the landholder has been able to not only protect and improve the valuable biodiversity on the land, the family can now also draw an alternate income and be funded to carry out the conservation management works.

This landholder is now entering into more agreements through this scheme and is likely to take up Stewardship sites under the new Biodiversity Conservation Act 2016 arrangements.

For more information, visit environment.nsw.gov.au/biobanking/brownlowhillbb

b. Grant Funding

Unfortunately, not all properties within Cobbitty Hills are suitable for BSAs due to the small size of the property, with properties generally required to be several hectares in size to be considered suitable.

If your property is a small block with remnant native vegetation, there are other avenues of technical advice and financial assistance available to you. Greater Sydney Local Land Services (GSLLS) is a regional government body providing advice and, where appropriate, funding assistance for landowners in bushland restoration, biosecurity and sustainable agriculture.

GSLLS are available to assist Cobbitty landholders on matters including:

- Pest and weed control methods;
- Bushland and waterway restoration and assistance;
- Farm biosecurity;
- Whole-farm planning;
- Sustainable agriculture; and
- Management of soil, water and ecosystems.

Greater Sydney Local Land Services Case Study

A landowner in Cobbitty contacted the GSLLS seeking advice on managing weeds in bushland areas of their property.

The Local Land Services officer provided advice and training over a series of visits to the property. This enabled the landowner to identify the weeds present and trained them in the best management techniques for effective control. This training and advice had seen dramatic improvements to the condition of the property over time.

The property is well vegetated with Cumberland Plain Woodland and GSLLS was able to source funds to assist the landowner in restoring this area. The landowner and GSLLS negotiated the work to be undertaken and entered into an 18-month grant funding agreement. The agreement provided funds to the landowner who was able to engage professional bush regeneration contractors to undertake the weed management on their property.

Grant funding provided a solution to land management problems which were beyond the landowner's capacity and which threatened to destroy both the ecological and agricultural values of the property.

The landowner has now received a second grant to assist in restoration of further areas of Cumberland Plain Woodland on the property. They have also worked with neighbouring landowners, providing advice and encouraging sustainable management of the land.





You can find out more about some of the programs and resources available to assist you in managing your land by visiting the links provided below.

Greater Sydney Local Land Services

greatersydney.lls.nsw.gov.au 1300 795 299 admin.greatersydney@lls.nsw.gov.au

- Grants and funding greatersydney.lls.nsw.gov.au/our-region/ financial-assistance
- Education and training greatersydney.lls.nsw.gov.au/resource-hub/training

Camden Council Resources

camden.nsw.gov.au 4654 7777 mail@camden.nsw.gov.au

- Local Biodiversity Strategy for Camden Local Government Area camden.nsw.gov.au/assets/pdfs/Council/Plans-and-Strategies/Camden-Council-Local-Biodiversity-Strategy.pdf
- Native Garden Guide camden.nsw.gov.au/assets/Uploads/Camden-Native-Garden-Guide.pdf

Biodiversity Conservation Trust

bct.nsw.gov.au 1300 992 688 info@bct.nsw.gov.a

- Biodiversity Stewardship Agreements for Landholders bct.nsw.gov.au/sites/default/files/2018-10/offset_BSA_ brochure pdf
- Voluntary Conservation Agreements bct.nsw.gov.au/cards/apply-voluntary-agreement
- Conservation Partners Grant bct.nsw.gov.au/cards/apply-conservation-partners-grant

Miscellaneous

- Weeds in Australia environment.gov.au/biodiversity/invasive/weeds/
- Bushland Weeds of the Sydney Region aabr.org.au/bushlandweeds-of-the-sydney-region/







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camden.nsw.gov.au

