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Discussion Paper for the Protection of Wombats on Development Sites

This paper outlines a range of approaches available to State and Local Governments for increasing the protection of wombats when greenfield sites are undergoing urban development activities that are likely to disturb wombat habitat. These activities can include (but are not limited to) road construction and maintenance and suburban development.

The approaches outlined in this paper are both direct and indirect ways of protecting wombats and other burrowing animals such as echidnas from the impacts of land-clearing for urban development.

This discussion paper contains four sections:

1. Background on wombats relevant to land-clearing and development activities
2. Measures to increase the protection of burrowing animals on land proposed for Impact Track development
3. Pre-clearing protocols for managing active wombat burrows on development sites
4. Other opportunities available to State and Local Governments::
    a. Commitment of suitable Government land for the relocation and release of wombats affected by urban development land clearing
    b. A new Voluntary Conservation Code of Practice for developers and land managers
    c. Additional specificity within a Guide to Environmental Impact Statements

The approaches listed above focus on opportunities to improve measures for new development applications.

However, the pre-clearing protocols listed in Section 3 can be used for developments that are already approved where earthworks have not yet commenced.

This paper is intended to contribute to the development of policy and guidelines by State and Local Governments for the protection of wombats from development activities.

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1. Background information on wombats relevant to development activities:

a/ Wombats are a native animal protected in each State and Territory under local legislation. Offences in relation to native animals include any activity that interferes with a nest, endangers progeny or breeding, kills, and injures or endangers.

b/ Wombats shelter, reside and raise young in burrows. Wombats are predominantly nocturnal, residing in burrows during the day. Any activity that adversely impacts on burrows will adversely impact wombats. In addition to requirements for protection under the various Acts, there are legitimate animal welfare concerns over activities likely to result in destroying (collapsing, crushing or excavating) burrows.

c/ Wombats are territorial. A territory is defined as an area of habitat containing food, water and burrow(s). A wombat cannot be moved, or made to move by an activity, from one territory to another without careful consideration of the impacts on their welfare and survival.

d/ If disturbed, female wombats may abandon their young when at foot, leaving the young to perish. Wombats and their young must not be separated by any activity or action.

e/ The conservation of wombats is an issue. Wombat populations are under pressure from increasing urban development, agricultural activity, weed infestation (eg African lovegrass replacing feed grasses), widespread mange, and natural disasters such as bushfire and floods (likely to increase in severity and regularity with climate change). A long-term goal should be to proactively protect healthy and viable populations of wombats and other native animals so they do not decline towards threatened status.

f/ Due to the effects of past land-clearing for urban development and farming, wombats populations occur frequently along river corridors and adjacent areas. Large greenfields development sites near rivers can be expected to have high numbers of wombats and burrows on site.

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2. Measures to increase protection of burrowing animals on Impact Track Development Land

Currently developers are required to consider Threatened Species and communities in their Environmental Impact Statements (EIS) for greenfield development sites. There is no requirement for the developer to outline how they will seek to avoid/minimise the impacts of their proposal on other conservation values such as wombat burrows and feeding areas.

As a result of this, protected species that are not classified as threatened, such as wombats, have no protection when Impact Track developments are being planned. Burrowing animals such as wombats and echidnas are unprotected from earthworks, resulting in burrow collapse and potential injury or death from crushing or suffocation.

The following measures would provide protection to wombats within the development application and approval processes:

1. Including wombats and other burrowing native animals in EIS requirements
2. Requiring a Burrow Management Plan as part of the Development Application

These measures are detailed below.

1. Including wombats and other burrowing native animals in EIS requirements

Currently, EIS requirements include only a requirement to assess for threatened species. Given the likelihood of wombat burrows being destroyed during land-clearing activities, with commensurate wombat deaths by crushing or suffocation, there is an animal welfare imperative to finding ways to protect wombats from this fate.

Adding a requirement for an EIS to include wombats and other burrowing native animals such as echidnas, would ensure that the risk to these animals of the proposed development can be assessed more directly than it can be at present.

Details that could be covered in the EIS include:

1. The assessment methodology used for identifying active burrows on the proposed development site.
2. The number and location of active burrows mapped appropriately using GIS. This detail would provide the basis for the pre-clearing protocol outlined in Section 3.
3. The assessor's recommended course of action to address the wombats on site, the options being:
    Option 1 - Habitat retention through development design
    Option 2 - No action (ie allowing crushing)
    Option 3 - Burrow blocking (displacement)
    Option 4 - Relocation and release
4. The credentials of the assessor making the recommendation.

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2. Requiring a Wombat Burrow Management Plan as part of the Development Application

Currently, Development Applications and Construction Environmental Management Plans require a range of management plans. These plans must be submitted to and endorsed by the relevant authority before the commencement of any work on the development site.

These plans include management plans for trees, landscape management, and Pink-tailed Worm Lizard habitat rehabilitation. A Wombat Burrow Management Plan could be a simple addition to this list of requirements.

The purpose of a Wombat Burrow Management Plan would be similar to plans done for Threatened Species and communities. It would be a mechanism for developers to advise the Government of their plans for responding to the existence of active wombat burrows on their proposed development site.

This Wombat Burrow Management Plan could include (but not be limited to):

1. Evidence that the proposed development design takes wombat habitat into consideration.
2. The number and location of active wombat burrows identified in the EIS that are in the planned development areas.
3. The planned course of action - of the five options outlined below.
4. The timing for the pre-clearing check and response.
5. The contractor to undertake the planned treatment action(s).

The courses of action available to developers and the Government wanting to develop in areas where active burrows are present are:

Option 1 - Development Design: To reduce the number of affected burrows through the retention of natural/undeveloped areas, habitat corridors, and reserves.

Option 2 - No Action: This is currently legal, despite the animal welfare issues and public concerns. If wombats are left in their burrows when construction starts, they will be crushed by heavy machinery as they are asleep during the day when construction typically takes place. This will result in injury, death by crushing or suffocation. This approach is clearly unacceptable because of the animal welfare implications.

Option 3 - Burrow Blocking: This involves blocking the burrow entries with a one-way gate so that they can leave but cannot re-enter and are forced to relocate. While displacement may be a preferable option to crushing or suffocation, the animals are still displaced which is an animal welfare issue.

Adult wombats that survive and are displaced will seek alternative homes as they need to be underground during the day, particularly in summer as they cannot thermo-regulate and can die in temperatures exceeding 30 degrees. This could involve displacing neighbouring

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wombats, causing territorial fighting and injury, or seeking shelter in nearby suburbs. Displaced wombats will move further afield and are more likely to cross busy roads, increasing the risk of wildlife/car collisions. This adds to wildlife roadkill deaths and injuries, placing additional pressure on wildlife groups, rescuers, rangers and carers. Joeys at foot may be left inside burrows unable or unwilling to use the gate when the mother escapes, and will perish.

Option 4 - Relocation and Release: This is a humane option if suitable sites are identified that are of sufficient size to accommodate potentially dozens of wombats being relocated at the same time.

To achieve this, the State and Local Governments would need to make available alternate government-owned land for this purpose. This has been done in NSW. Details are provided in Appendix 2.

A Pre-clearing Protocol for Managing Active Wombat Burrows in Development Areas Prior to Earth Works is detailed overleaf.

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3. Pre-clearing Protocol for Managing Active Wombat Burrows in Development Areas Prior to Earth Works

Given the often extended time period between when an EIS is submitted and site works begin, a pre-clearing check for active burrows must be undertaken prior to earthworks commencing.

This pre-clearing check will confirm the active burrows on site that require action to be taken, as detailed within the Wombat Burrow Management Plan submitted during the Development Application process.

This protocol can be included within the proposed Wombat Burrow Management Plan for identifying active burrows during the 3 months prior to earthworks.

This protocol could be provided by the State and Local Governments to a developer within the Advisory Notes of a Notice of Decision regarding a Development Application.

STEPS TO BE TAKEN:

Phase 1: Obtain the GIS data submitted within the EIS for the location of wombat burrow(s) on site

Phase 2: Confirm which burrows remain active/occupied

a) Wombat burrows can be identified by:

i) underground entrances not less than 30cm in diameter, and

ii) the presence of a mound of dirt in front of the burrow.

Fresh scats are often found in the vicinity of active burrows but are not definitive as they indicate activity not occupancy.

Boltholes, as opposed to burrows, are shorter in length (typically 1-2m deep) but with the same opening size and usually a mound of dirt. The only definitive way to determine burrow versus bolthole is a physical inspection with a flashlight.

Unoccupied burrows have an unused look. They would typically have overgrowth in place of where a wombat's feet or body would move during entry or exit.

b) Conduct a site survey on foot to confirm which burrows have current activity and if there are any new burrows dug since the EIA check. (This process can also act as a cross-check of the original assessment data.) Care should be taken to avoid stepping above burrow entrances as the soil can be soft and may collapse, particularly if the soil is saturated during a wet season.

c) Map the active burrows on appropriate digital mapping tools such as Avenza maps or Collector. (This information will be used as a basis for the burrow treatment phase.)

d) Inspect surrounding area of burrow entrance for at least 30m radius and

install wildlife motion sensor cameras on all entrances facing the burrow entrance. Monitoring of all entrances is needed as activity may otherwise be overlooked if a

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burrow has multiple entrances. Cameras may also reveal other information such as joeys at foot or use of the burrows by other wildlife.

e) Monitor for 10 days. Wombats may use multiple burrows in this time, if no wombat sleeps in the burrow during the day, it may be considered vacant.

f) Use burrow robot cameras for burrows where the motion sensor cameras are inconclusive.

g) Identify the active burrows needing action in Phase 3.

NOTE: Wildlife motion sensor cameras are to be used in preference to placing sticks in front of burrow entrances. This is because sticks will only indicate movement of an animal, not occupancy by a wombat. Other animals known to visit wombat burrows include macropods, foxes, echidnas, rabbits and other animals. Also, wombats are known to inspect other burrows but not actually live there.

Phase 3: Action

The actions taken in this phase would be according to the management option(s) contained in the Wombat Burrow Management Plan submitted by the developer in their Development Application.

The following protocols outline the steps to be taken for Option 3 - Burrow Blocking and Option 4 - Relocation & Release.

(3a) PROTOCOL FOR BURROW BLOCKING (ie prevention from re-entering burrows vs relocation)

This approach involves blocking the burrow entries so that they cannot enter and are forced to relocate. While this may be a preferable option to crushing or suffocation, the animals are still displaced which is an animal welfare issue. **This action should not be undertaken if the wombat(s) are sick or injured, especially if suffering from sarcoptic mange.**

Adult wombats that are displaced will seek alternative homes as they need to be underground during the day, particularly in summer as they cannot thermo-regulate and can die in temperatures exceeding 30 degrees. This could involve displacing neighbouring wombats, causing territorial fighting and injury, or seeking shelter in nearby suburbs. Displaced wombats will move further afield and are more likely to cross busy roads, increasing the risk of wildlife/car collisions. This adds to wildlife roadkill deaths and injuries, placing additional pressure on wildlife groups, rescuers, rangers and carers. Young joeys may be left inside burrows even if the adults escape and will perish.

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STEPS TO BE TAKEN:

Timing:

1. This process MUST be undertaken minimum 8 weeks PRIOR TO earthworks commencing. (See point 2 below.)

2. Action should not be undertaken during summer or hot weather. Preventing wombats from entering their burrows without providing alternative accommodation puts them at risk of harm as they need to be underground during the high temperature summer days. Wombats are unable to thermoregulate (sweat or pant) and therefore live underground during the day as extreme heat will cause death.

Actions:

1. Use camera footage to determine:
    a. how many wombats reside in burrow and
    b. whether there is a mother with a small joey
    c. Confirm health status of wombat(s)

2. If a single wombat without a joey or multiple adult wombats live in the burrow:
    - Install a one-way gate to allow wombats to exit but not re-enter

    If mother and small joey are present:
    - No further action can be taken until the joey is big enough to follow the mother out of the burrow (for a period of 8-12 weeks depending on age/size and behaviour of joey). Wombat mothers leave their joeys in the burrow to go out and graze at night. The joey will be too small to exit through the one-way gate so installation of a gate when a small joey lives in the burrow may cause the mother and joey to become separated.
    - It should be ensured that an alternative burrow is available for the mother to move her joey to in the event of blocking their burrow

    If wombat(s) are confirmed to be sick or injured:
    - No further action can be taken until the wombat(s) have been assessed and appropriate treatment provided and their illness or injury has resolved. This includes mange treatment. Wombats afflicted by sarcoptic mange are exceptionally vulnerable, having lost most of their fur. They lack the ability to relocate or defend themselves against other wombats due to their weakened state. Displacement is not an option, as they cannot cover great distances to find a new burrow, making them defenseless against both the elements and healthier wombats. Moreover, displacement can lead to mange spreading further, infecting other healthy wombats.

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(3b) PROTOCOL FOR WOMBAT RELOCATION & RELEASE

This relocation option increases the likelihood of a wombat surviving the earthworks as long as it is released at a suitable release site.

This option involves 3 steps:

1. trapping the wombats,
2. relocating them to the release site, and
3. releasing them.

Contractors with specialist wombat expertise/training must be used to complete this process as the stress of each of these 3 steps can quickly kill a wombat or cause injury.

This option is dependent upon suitable release sites being available for potentially large numbers of wombats being relocated.
Suitable release sites include:

- vacant burrows
- absence of mange
- absence of nearby busy roads
- presence of reliable water source
- presence of suitable habitat and feed

STEPS TO BE TAKEN:

1. Identify and arrange a suitable and viable relocation site before trapping begins.
2. Arrange for monitoring and trapping to be undertaken at dusk/night when the wombats will be outside their burrows.
3. For each active burrow, set up a custom-built wombat trap in front of the burrow with an appropriate lure inside.
4. Check the traps daily. Traps cannot be left unmonitored as wombats can injure themselves.
5. When a wombat is found in a trap, transfer it immediately to a transport crate to avoid injury
6. Cover the crate with a dark blanket
7. Transport the wombat to the pre-approved relocation/release site
8. Traps can only be used for adult wombats (joeys will likely have to be caught by net, and if unable to reunite with mother would have to go into foster care with a licensed wildlife group).

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4. Other opportunities available to the State and Local Governments

4a. Commitment of Government land for the use of relocating wombats that are displaced by new development

Relocating wombats from new development sites is only viable if there are suitable alternate sites available. Currently, the number of suitable sites is extremely limited. Additional suitable sites on government-owned land will be needed to accommodate the high numbers of wombats potentially being relocated from new greenfield developments.

This could be achieved by:

1. Authorising wildlife groups to identify and use suitable release sites on public land
2. Changing land management agreements when rural leases come up for renewal
3. Not renewing some existing rural leases so that the land can be used as habitat provision or purchasing land for the use of wildlife groups for release sites.

These initiatives would ensure that viable habitat can be made available to wombats displaced by urban development.

4b. A Voluntary Code of Practice for Keeping Common Native Species Common

There is an opportunity to lead a joint agreement that encourages developers, Class A building companies, ecologist consultants, and other parties to commit to voluntary actions towards the maintenance of habitat and healthy wildlife populations.

These voluntary actions could include development design that retains undisturbed natural corridors, habitat retention such as grasses and understory, and designing development areas away from key habitat areas.

Australian Capital Territory Specific:

4c. Update the ACT Government Proponents Guide to Environmental Impact Statements

This document details the factors to be considered in an EIS. There is an opportunity to provide greater specificity with regard to wildlife and habitat considerations. At present, these fall under the general category of Ecology and Natural Environment.

For example, page 10 of this document lists the details about the Preliminary Risk Assessment and factors to consider when identifying risk. Currently, there is no mention of wildlife or habitat. These would come under the broad and undefined ‘ecology and natural environment’. There is an opportunity to provide greater detail and guidance in this section.

Similarly, in Table 3, Evaluating Consequence, ecological considerations are categorised into Values and Sensitivity. There is an opportunity to improve the descriptions for these categories as they focus at the ecosystem level, and do not include reference to the loss of habitat such as tree hollows or burrows.

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This high-level ecosystem focus means that there is scope for an EIS to be done that complies with the guidelines yet results in significant destruction of habitat by crushing active wombat burrows during earthworks.

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Appendix 1 - Images of wombat bolt holes and burrows

Active burrows

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Bolt hole

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Inactive burrow

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Appendix 2 - News stories about NSW Government sites being rezoned to enable wombat relocation and release sites.

Wombat rewilding project lifts numbers but hotter weather, traffic has them staying put

30 June 2018

By Luke Wong

The wombat rewilding program began in early 2015.*(Supplied: Greater Sydney Local Land Services)*

A wombat rewilding program is showing an increase in population numbers, but weather trends, weeds and road dangers are hindering their movement.

What began in 2015 with 13 orphaned wombats placed back into the wild at a biobank site at Mulgoa in western Sydney, has grown to an estimated 19 animals.

"To have a nice little population established and doing well and settled is quite exciting really," said Peter Ridgeway, a biodiversity land officer with the Greater Sydney Local Land Services.

A mother and her joey come out to feed at night.

The adult marsupials were initially homed at artificial burrows, but since the project's inception they have dug around 30 wild burrows of their own.

Wildlife cameras have recorded their movements and volunteers have been sorting through the images and data.

"We've had 106,000 photos taken on site, so it's a huge amount of information that we've collected," Mr Ridgeway said.

Wombats feed at night but tend to stay inside burrows if evening temperatures stay above 30C.*(Supplied: Greater Sydney Local Land Services)*

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Animals feeling the heat

But the cameras' temperature sensors have also recorded a worrying trend.

"Over 30 degrees Celsius the wombats here at Mulgoa simply don't leave the burrow at all," Mr Ridgeway said.

"We've had quite long periods where the nights didn't drop under 30 degrees and so the wombats simply don't come out to feed."

Mr Ridgeway referred to Bureau of Meteorology records that showed since 1970 the number of days above 35C in western Sydney have more than doubled.

"So we are quite concerned that the wombats are suffering with urban heat island effect in western Sydney."

Wallaroos have used vacant wombat burrows to train joeys to take their first hops.*(Supplied: Greater Sydney Local Land Services)*

Weeding out problems

Ecologist Linda Brown is part of the Cumberland Land Conservancy, which manages two properties close to the biobank site where the wombats were rewilded.

She said wombats from the Blue Mountains National Park had started to appear at one site and the wombats from the biobank had been seen entering the other.

Now she's witnessing the benefits they're having on the surrounding environment.

There has been an 80 per cent increase of other wildlife around wombat burrow sites.*(Supplied: Greater Sydney Local Land Services)*

"Wombats are herbivores, they like to eat grass and bark, and what they do, they keep the area quite open, also from weedy species," she said.

"They create an area which is called a green pick, which has really good nutritious grass and other herbivore species profit from that."

Mulgoa Valley Landcare volunteers have been removing weeds including lantana, privet and African olive, which then restores the ground feed and accessibility for the animals.

But Ms Brown said more needed to be done to preserve what's left of the natural landscape from farming and urban development to improve the natural habitat.

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"Sadly there is only 5 per cent left of the Cumberland Plain Woodland and a lot of those areas don't have wombats in them because there's no connectivity."

One of the wombats has discovered a drainage culvert to safely travel beneath a major road.*(Supplied: Greater Sydney Local Land Services)*

Bypassing road dangers

One of the hazards inhibiting the wombats' migration is the traffic along a major nearby road.

Ms Brown said the current dry conditions were forcing many animals to the roadside to find feed.

Three dead wombats were recently recorded along the route, but there are signs others had found a way beneath it.

One wombat has discovered a drainage culvert and is using it to access greener pastures on the other side of the road, Mr Ridgeway explained.

"It's quite exciting and it shows what we can do to try and reduce roadkill.

"We've started to map all the roadkill across a few sites across western Sydney and then having a look at what solutions we might be able to retrofit onto these roads to reduce that risk."

Source: ABC News

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The wisdom of rewilding the bush with wombats

30 November 2017

By Luke Wong

Rewilding the bush with wombats at Mulgoa in New South Wales.*(ABC Radio Sydney)*

A wombat rewilding program in western Sydney is digging up huge mounds of benefits for the environment and the survival of other native wildlife.

With cute names like Stitch, Mel, Brax, Pudding and Oliver, the orphaned wombats have been reintroduced over the past couple of years at Mulgoa at the foot of the Blue Mountains.

However finding new homes for the marsupials has been a massive task for all involved.

Peter Ridgeway is a biodiversity officer with Greater Sydney Local Land Services and has been involved with the project from its inception.

"It's been quite an involved process, a lot of science, a lot of time, quite a lot of hard yakka as well," Mr Ridgeway told Wendy Harmer on ABC Radio Sydney.

"It's a huge burden of love."

WIRES volunteers release a wombat back into the wild.*(Supplied: Greater Sydney Local Land Services)*

The project started when WIRES volunteers rescued and nurtured the orphaned wombats after their parents became roadkill.

It took two years to raise each animal to a stage where they could fend for themselves and go back into the wild.

Eleven have been released in the past two years — six females and five males.

Mr Ridgeway said the program might also be having some success with increasing the local population.

"[We're] fairly confident we've got two babies now."

A Conservation Volunteers Australia team with a completed artificial wombat burrow.*(Supplied: Greater Sydney Local Land Services)*

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Respecting the animals

Initially, Mulgoa Valley Landcare Group and Green Army volunteers dug artificial burrows for the wombats but soon enough the animals learned to do it for themselves.

"It gives you an amazing respect for wombats when you have to dig an artificial burrow — they are huge," Mr Ridgeway said.

Students from the University of Western Sydney have been monitoring the animals with surveillance cameras, but keeping them in view has proved a challenge.

"It's very difficult for us to track the wombats because they do keep changing, digging new burrows every other week," Mr Ridgeway said.

Other native animals have been monitored using vacant wombat burrows as shelter.*(Supplied: Great Sydney Local Land Services)*

The difference a wombat makes

He said the researchers' observations had exposed the wider benefits of reintroducing wombats to the landscape.

"We got an 80 per cent increase of other wildlife species at the site by putting the wombats in," he said.

They also noticed other animals moved into the vacant burrows, particularly during extreme climatic conditions.

"As soon as it starts raining or we've got a heatwave or a cold snap, it's not just the wombats that go down the burrows," Mr Ridgeway said.

"We've got wallabies, kangaroos, brushtail and ringtail possums, bowerbirds, goannas; these animals going down as soon as there's bad weather."

One of the 11 released wombats in bushland at Mulgoa.*(Supplied: Greater Sydney Local Land Services)*

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Collaborating with landowners

A vital part of the program is finding a suitable location and approaching landowners to volunteer or set aside their properties for perpetuity under a government-run biodiversity offset scheme.

Lisa Harrold is the president of the Mulgoa Valley Landcare Group which has been involved in coordinating landowners to participate in the wombat rewilding program.

She has volunteered roughly two acres of her property south of Penrith to be part of the collective 50 hectares currently being used.

"Shifting these little guys back onto the Cumberland Plain is quite exciting because they've been absent for many decades."

Wombats are nocturnal marsupials and their burrowing habits make them difficult to monitor.*(Supplied: Greater Sydney Local Land Services)*

She said the program highlighted the ongoing challenges of Sydney's growing urban development and empathised that it was a difficult choice for many people to reserve their land for environmental conservation.

"The way property value is in western Sydney, I'm sure it was a difficult decision," she said.

"Property values out here have gone from the sublime to the ridiculous."

Thankfully, Mr Ridgeway said there was no shortage of people wanting to get involved; in fact, they have had more landowners interested than his team could handle.

"One landowner showed me all the old wombat burrows and said, 'I never thought I'd say this, but I kind of miss them'."

For Ms Harrold, the benefit of improving wildlife numbers is something she wants others to ponder when they consider selling up to developers.

"People must just start to rethink how they see western Sydney, in terms of whether it's just wall-to-wall houses or whether we can claw back some of the biodiversity that's really special."

Source: ABC News

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Appendix 3 - Protocol used by Shoalhaven City Council

This is an excerpt of a protocol used by Shoalhaven City Council in relation to wombat burrow management prior to clearing.

Safeguard / Measure	Responsibility
Construction works	
6. Vegetation to be retained and protected shall be delineated with high-visibility para-webbing or similar to minimise the risk of encroachment and impact.	Construction Site Manager / Contractor;
7. Habitat features including hollow-bearing trees and wombat burrows shall be flagged, delineated with buffers (min 2.0m for HBTs and min 5.0m for wombat burrows) and retained and protected during initial clearing and site preparation works.	Construction Site Manager; SCC Environmental Officer
8. Wombats are to be excluded from burrows and/or captured and released off-site by a suitably qualified wildlife handler, in accordance with a NPWS issued Licence to Harm Native Wildlife, prior to carrying out clearing, excavation or fill works which would affect these habitat features.	Construction Site Manager; SCC Environmental Officer
9. Inspection of potential hollows within trees to be removed shall be undertaken by Council's Environmental Officer or other suitably qualified ecologist, via elevated work platform prior to removal of trees, to ensure no impact to fauna including threatened microbats.	Construction Site Manager; SCC Environmental Officer
10. Bomaderry Creek stabilisation works shall be undertaken in accordance with the conditions of Fisheries Permit PN21/250 (Council reference D21/409431)	SCC Project Manager; Construction Site Manager / Contractor;
11. Creek diversion and dewatering must be in accordance with a plan approved by DPI Fisheries. This plan should be submitted to DPI Fisheries for comment at least four weeks prior to associated works.	SCC Project Manager; Construction Site Manager / Contractor;

Queanbeyan Palerang Regional Council is also considering new pre-clearing protocols for managing active wombat burrows.