



Grass trees planted on cleared land opposite the Jingaling Brook Road intersection.

Roadworks 'offsets' no substitute for destruction of biodiversity

Safe and Scenic Toodyay Road
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RECENT data shows Main Roads Western Australia (MRWA) and local shires are the largest land clearers in the Wheatbelt.

Around half the approved land clearing in the past three years was for road developments and upgrades in an area that already has scant remaining native vegetation.

MRWA is one of many organisations who claim "offsets" as equal compensation when applying for native vegetation clearance permits.

In their September update on improvements to Toodyay Road MRWA included the statement: "In accordance with State and Federal environmental regulations, an environmental offset for these upgrades includes a property of 196 hectares of prime Wandoo woodland adjacent to the Clackline Nature Reserve".

Also claimed as an "offset" were approximately 50 transplanted native grass trees, and revegetated land at the Toodyay Road – Racecourse Road intersection up to the railway crossing, alongside new road developments.

One might conclude that this makes up for the large trees with complex understory plants that are going to be destroyed along Toodyay Road in the road upgrade.

This article explains why this is not the case, and what is meant by an "offset".

A vegetation "offset" is a location where a native species habitat and vegetation condition is protected in perpetuity and can be improved by protective fencing, weed and pest control, and planting locally appropriate native species.

The concept of biodiversity offsets, developed in the US in the 1970s to mitigate damage to wetlands, has been adopted in more than 100 countries worldwide.

It means setting aside a conserved area as compensation for losses of native flora and fauna habitat due to development, with the aim there be no net loss of biodiversity.

But has this been achieved in this case?

In WA, the concept of offsets was incorporated into the Environment Protection Act of 1986 and when the WA Environmental Offsets Policy of 2011 guidelines were completed in 2014.

There was no intent to provide additional gains beyond equivalent loss from development.

Biodiversity is an exquisitely complex entity involving a network of interconnected ecosystems, species, and organisms both micro and macro, in tune with seasons and population mass, which provides a healthy, sustainable, genetically diverse natural system.

Much of it is not yet understood, and this complexity is why intended biodiverse offset equivalents have not yet been achieved by governments anywhere.

Preserving an existing area of native vegetation as an equivalent replacement for an area destroyed by development is a flawed idea. The steps in any development, including roads, should be:

1. Avoiding damage and destruction;
2. Minimising damage if avoidance is impossible;
3. Offsetting.

Unfortunately, all too often steps 1 and 2 are bypassed, with step 3 presented as the first option by developers seeking clearance approvals.

A 10-year study published in 2017 by the Australian National University looked

at NSW where approximately 22,000ha of native vegetation was approved for clearing and 83,500ha was established as "offsets".

The study revealed it would take 146 years to achieve a biodiverse equivalent of "no net loss" status for that 10-year period alone.

This is because 82 per cent of the offset area was obtained by covering losses with already existing areas of native vegetation, instead of newly planted biodiverse areas that would replace destroyed vegetation.

There can be no net gain with this type of offset as such practices are not offsets in the sense of the original concept.

The remaining 18 per cent came from transplants and areas revegetated with seedlings.

This was calculated as a "gain" when replacing mature vegetation and complex habitat such as mature trees and areas of diverse growth.

Here in our Toodyay region, multiple mature trees, some of them hundreds of years old, are in line to be cleared for new Toodyay Road development.

No amount of seedlings can replace them.

Our local Wheatbelt Natural Resource Management (NRM) reports the majority of the Wheatbelt falls well below the 30 per cent native vegetation required to maintain a viable biodiverse ecology.

The Avon region has been reduced to 11 per cent remaining native bushland.

Much of this is on road verges and road reserves, which form important wildlife corridors and habitat.

Between 2019 and 2022, 514ha were approved for clearing in the Wheatbelt, with half of this (257ha) cleared for road development and upgrades.

It is perhaps unsurprising that MRWA continues to claim the unsubstantiated and increasingly disputed use of "offsets" as an equivalent and acceptable replacement for the diverse vegetation lost to their roadworks.