

Australasian Network for Ecology and Transportation

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Sourcing biodiversity offsets within a market-based system

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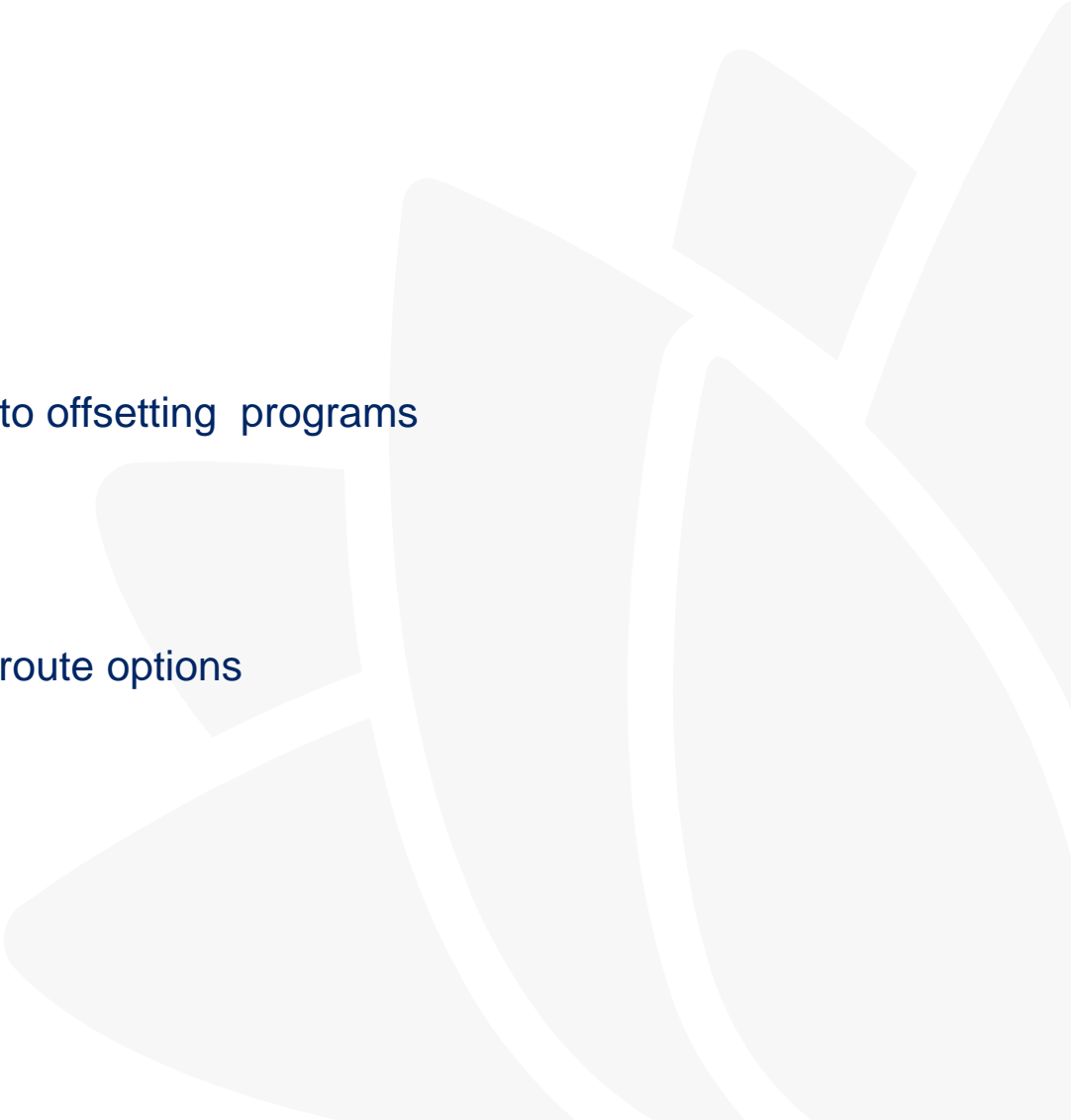
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Transport
Roads & Maritime
Services



Overview

- Evolving nature of offsetting policy and practice in NSW
 - Current offsetting mechanisms and approaches
 - Some case studies to demonstrate:
 - the potential contribution of land owned by infrastructure agencies to offsetting programs
 - some of the challenges involved in working within a developing offsetting market
 - the potential for early offsetting planning to inform decisions about route options
 - Lessons learnt
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Policy for offsetting infrastructure impacts in NSW

Mid 1990's	Ad hoc compensatory habitat/offset requirements	Ad hoc negotiated
2007	The NSW Biodiversity Banking and Offsets Scheme	
2008	Office of Environment and Heritage (OEH) principles for Biodiversity Offsetting	
2012	Policy requirements introduced	Mandated, metrics based, integrated
2012	EPBC Act offset policy and assessment guidelines	
2013	Fisheries NSW Policy and Guidelines for Fish Habitat Management	
2014	Biodiversity offsets policy for major projects	
2015	Environment Protection and Biodiversity Conservation (EPBC) Act assessment bilateral	
2016	Legislative requirements introduced	Law based, integrated?
2016	Biodiversity Conservation Act and Biodiversity Offsets Scheme	
2017	Notice of intention to revise NSW EPBC Act assessment bilateral	

Evolving practice of biodiversity offsetting in NSW

Based on DP&E approval conditions for major road infrastructure since 2000

Year of approval	2000	2001	2002	2003	2005	2007	2008	2009	2010	2013	2014	2015	2016
	1	3	2	1	1	2	1	2	2	1	2	1	3
Calculation method	As agreed	1:1 2:1	2:1	2:1	1:1	EOAM	Hectare target	Hectare targets	As agreed BBAM	4:1	4:1 FBA	FBA	FBA
Like for like	No	No - 2 Yes – 1 EEC	No – 1 Yes -1 EEC	Mangrove	Similar veg community	EEC & T species	Similar veg and habitats	Similar veg and habitats	EEC & T. species	EEC & T. species	EEC & T. species	EEC & T. species	EEC & T. species
Mechanism	NPWS	NPWS	NPWS	Rehab	NPWS	On-title + contract	NPWS	NPWS	On-title + contract	On-title + contract	Biobank	Biobank	Biobank
In place before impacts	No	No	No	No	No	No	No	No	No	No	No	No	Yes – 1 No – 2

* Major project approvals with biodiversity offsetting. Only those years where approval involved offsetting included. EOAM = Environmental Outcomes Assessment Methodology. BBA= BioBanking Assessment Methodology FBA= Framework for Biodiversity Assessment NPWS = National Parks and Wildlife Service

Offsetting mechanism

- RMS now heavily reliant on purchasing biodiversity credits
- Calculated using a metric developed by OEH
- Credit pricing accommodates
 - ongoing funding for management
 - opportunity costs
 - profit margin
- Agreements noted on title and compliance occurs within a formal statutory compliance framework
- Mechanism establishes biodiversity conservation as a potentially profitable enterprise and therefore attracts entrepreneurial interest
- However, no formal system of brokers in place!

Selling Biodiversity credits to **Roads and Maritime Services**

This guideline explains the approach taken by Roads and Maritime Services when making offers to purchase credits and to negotiate credit value as part of the NSW Office of Environment and Heritage (OEH) Biodiversity Offset Scheme.

This document is applicable until withdrawn or replaced by Roads and Maritime and does not constitute legal advice. Roads and Maritime encourages all property owners considering participating in the Biodiversity Offset Scheme to obtain their own legal and financial advice before proceeding.

Roads and Maritime seeks to avoid, minimise and mitigate the impacts of roads and other infrastructure on biodiversity during the development and design of its projects. Where impacts cannot be avoided or mitigated, Roads and Maritime looks to offset these impacts using the NSW Biodiversity

Offset Scheme administered by OEH. This approach is consistent with NSW and Commonwealth planning and environmental laws.

The Biodiversity Offset Scheme is a market-based scheme that provides:

- A consistent biodiversity assessment process for development
- A rigorous and credible offsetting scheme
- An opportunity for rural property owners to generate income by managing land for conservation.

Under this scheme, property owners enter a Biodiversity Stewardship agreement with the NSW Minister for the Environment and can then sell the biodiversity credits generated by their properties.

More information about this scheme including details on how to register to participate can be found at: <http://www.environment.nsw.gov.au>



Current offsetting approach

Focussed on securing offsets early

Using our own residual land as Biobanks

Sponsoring landholders to participate

Two major public Expression of Interest processes undertaken

- Pacific Highway Upgrade Biodiversity Offset Program
- Western Sydney Infrastructure Biodiversity Offset Program

Case study 1: Using left-over RMS land as a biodiversity offset

- Suitability assessment of residual Roads and Maritime Services land
 - biodiversity values
 - planning constraints / opportunities
 - long term management framework
 - cost benefit
- Stage 1
 - 618 ha assessed at 30 sites
 - Estimated over 57,000 credits with market value of over \$17 million
 - 3 biobanking agreement applications now lodged



Roads and Maritime Services residual land biobanking site at Murray's Beach

Case study 2: Pacific Highway Upgrade – Woolgoolga to Ballina

- Offset requirement of 3474ha 4:1
- 2015/16: Expression of Interest and rapid assessment
- 2016/17: rapid assessment of shortlisted properties
- Feb 2018 completed:
 - 31 properties assessed, 16 private and 15 RMS
 - BioBanking applications for 17 properties: 13 private and 4 RMS
 - 4 NPWS land transfers
 - 1 potential State Forest Flora Reserve
- 5165ha achieved, credit surplus being determined

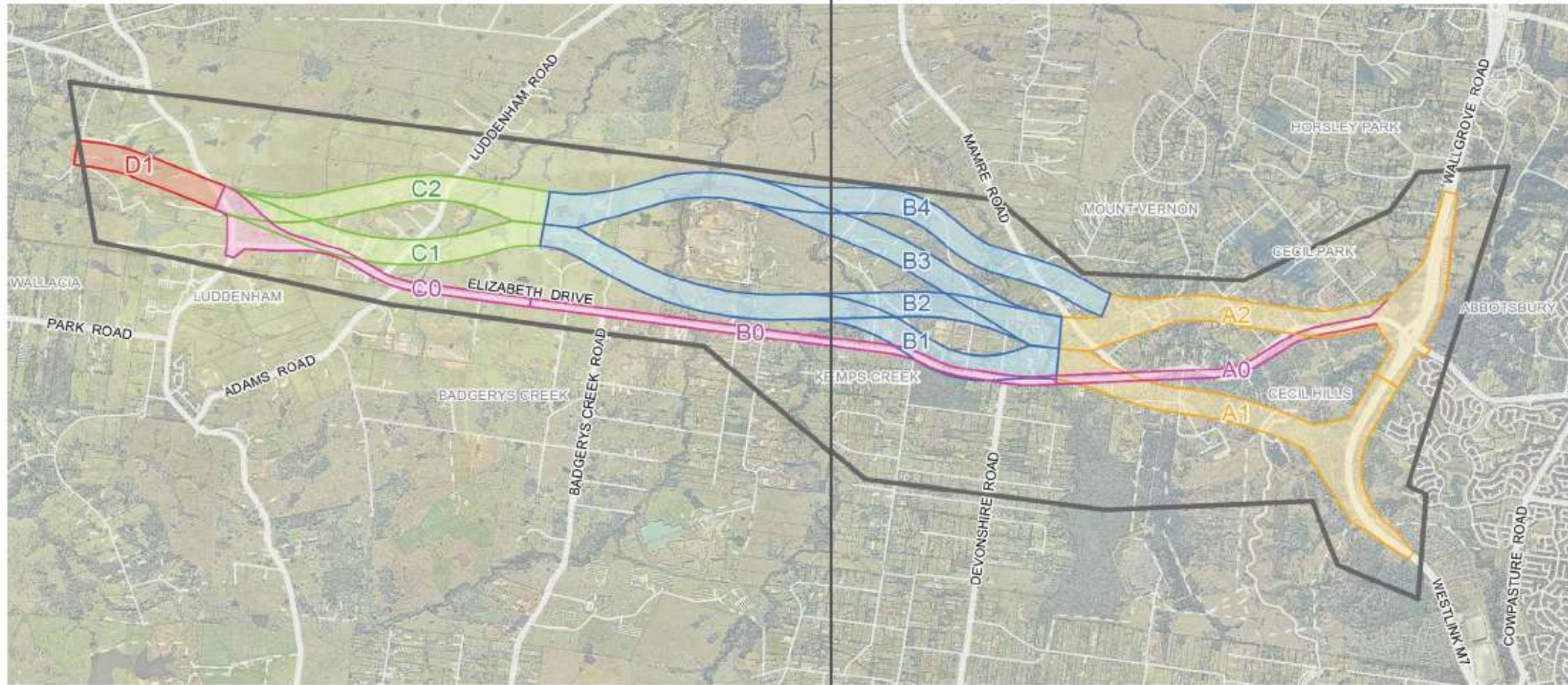


PACIFIC HIGHWAY UPGRADE
Woolgoolga to Ballina Biodiversity Offset
Strategy

Case study 3: Western Sydney Infrastructure Plan

Using relative offset costs to inform route selection planning

The M12 Motorway long list of corridor route options



Comparison of options

Route Option	A0 Upgrade existing road	A1 300m corridor	A2 300m corridor
Vegetation within corridor (Hectares – worse case)	50.2	35.9	67.1
Estimated Ecosystem credits (40 credits / ha)	2008	1436	2684
Estimated cost (\$15,000 / credit)	\$30,120,000	\$21,540,000	\$40,260,000

Lessons learnt

Offsetting planning needs to start early, preferably at the route option stage

Estimating likely offsetting costs can bring relative biodiversity impacts into focus and assist with budget planning

Securing offsets requires active landholder engagement programs

Expertise provided by land valuers and conveyancing experts is essential

Set transparent assessment criteria and open opportunities to all landholders

Build landholder understanding of their obligations under the agreement

Summary

Allow time for landholders to consider the impact of the agreement on their land

Provide timely feedback to all landholders and build in redundancies

Be transparent in how you make offers

Accredited ecological consultants play a vital role in the integrity of the system and more work is required to standardise management actions and costings.

Thank you



Like for like over the years

..... pattern on increasing precision in matching like for like

