

The imperative for integrated strategic environmental assessment

Carolyn Cameron
Cameron Strategies



Planning & environment approvals processes are increasingly required to manage the convergence of values

Carmichael Coal Mine, Galilee Basin, Qld

- \$16 billion project - lifespan of ~150 years¹
- EPBC Act approval challenged by conservation groups and set aside by Federal Court
- Challenge related to Minister failing to adequately consider impacts on 2 threatened species; Yakka Skink & Ornamental Snake



Figure 1: Ornamental Snake (Source: Stewart McDonald) & Yakka Skink (Source: Dan Ferguson)

Shenhua Watermark Coal Mine, Liverpool Plains, NSW

- Mine proposed in Liverpool Plains, NSW
- In 2012/13 the area generated:
 - \$656 million in cotton production
 - \$457 million in cattle and calves, and
 - \$451 million in wheat
- Granted conditional approval under EPBC Act by Federal Environment Minister in July 2014
- Publically opposed by agricultural community and the Federal Agriculture Minister²

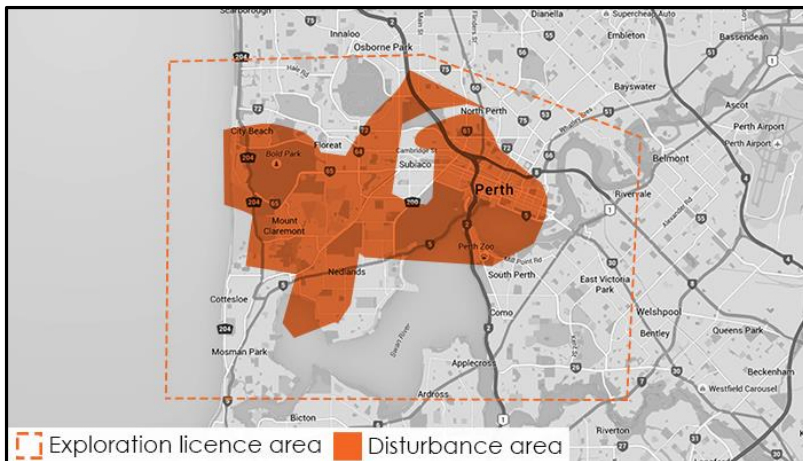


Figure 2: Shenhua Mine footprint shown against Perth (Source: ABC)

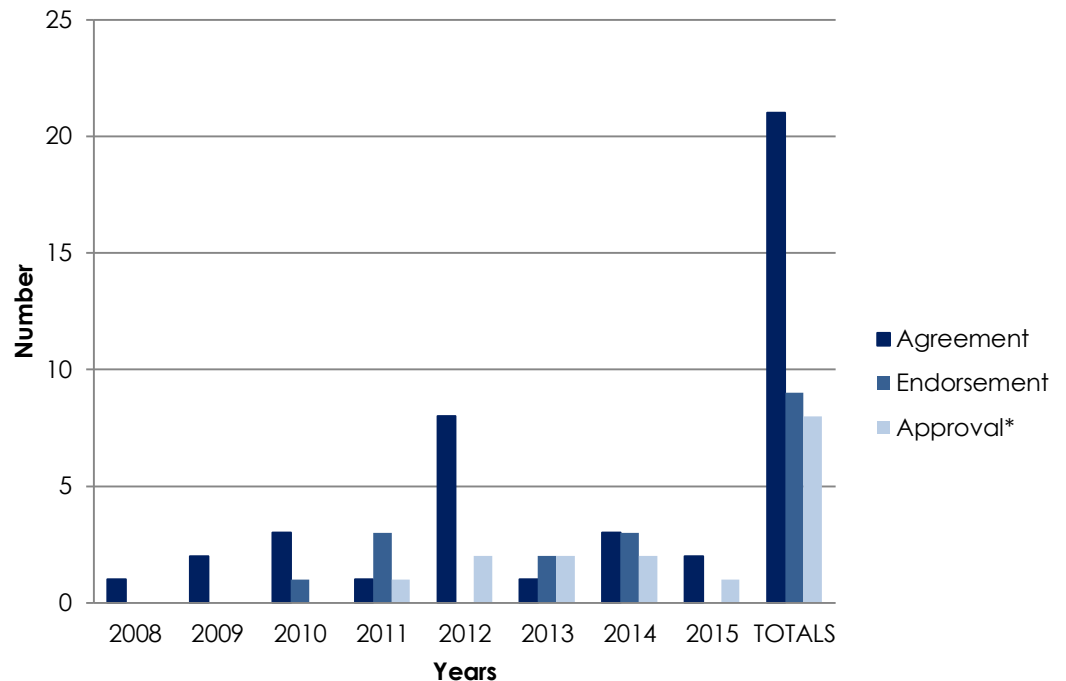
¹ Australian Government, 'Referral documentation for Carmichael Coal Mine, Queensland' (2010)

² ABC, 'Fact check: Is the proposed Shenhua Watermark coal mine located in the middle of Australia's best agricultural land?' (1 September 2015)

To manage this convergence, government & industry have increasingly adopted SEA to resolve development scenarios

- Strategic assessments are occurring in all Australian states and territories
- They have been adopted to resolve a number of complex development scenarios, for example:
 - Urban expansion in capital cities
 - Fire management policies
 - Coal and Iron Ore mining
 - Offshore petroleum activities
 - Great Barrier Reef World Heritage Area

Figure 3: Number of strategic environment assessment agreements, endorsements and class of action approvals under Part 10 of the EPBC Act



*Class of actions approvals have been represented once in the year the most recent approval was granted (e.g. Melbourne Strategic Assessment has four approvals and is represented as a single approval in 2014)

SEA is a systematic decision support process applied to improve planning and environmental outcomes

Case Study: Melbourne Urban Growth Boundary, Vic

- Assessed cumulative impacts of urban development on MNES
- Program commits to a range of conservation outcomes
- Key commitment is to establish 15,000 hectare Western Grassland Reserve (WGR)⁴
- WGR to be acquired by Victorian Government and managed in perpetuity
- Estimated to save government and industry \$3.2 billion over 30 years⁵
- Outcomes not possible without a strategic approach

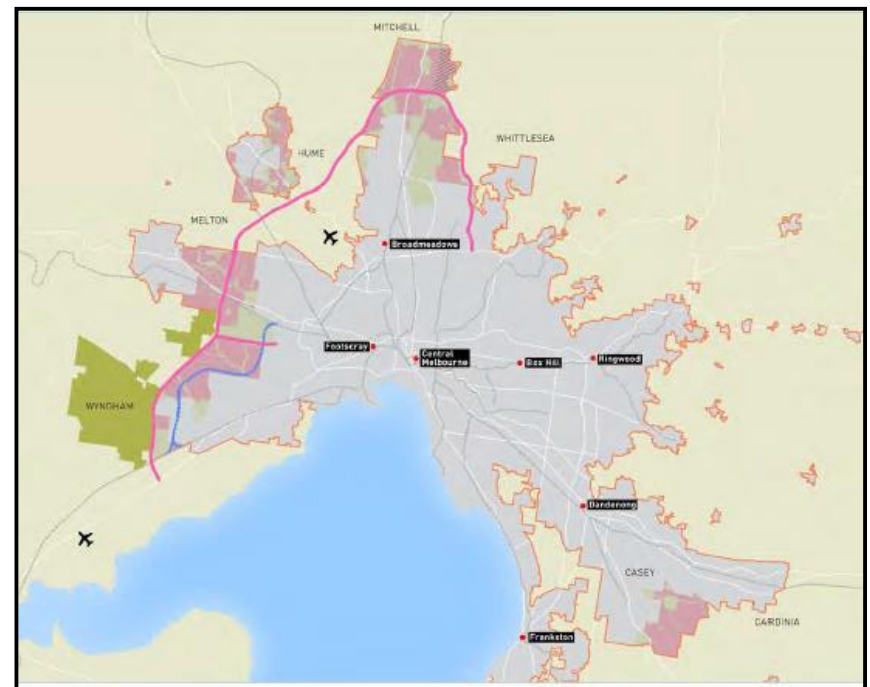


Figure 4: Location of the Western Grassland Reserves (green)
Source: Melbourne Strategic Assessment Program Report

⁴ Victorian Government, 'Delivering Melbourne's Newest Sustainable Communities Program Report' (2009), p 48.

⁵ Access Economics, 'Cost benefit analysis of EPBC strategic assessments' (2011), Report for the Australian DSEWPac, p ii.

Despite the proven application of SEA, the Productivity Commission found they are not used to their full potential

In its 2013 Major Projects Report, the Productivity Commission recommended greater use of strategic approaches and reported that strategic environmental assessments were not being used to their full potential⁶

Only three Australian jurisdictions have SEA provisions

Strategic assessment under the EPBC Act

- Focussed on MNES – limited ability to consider social and economic drivers

Strategic & derived proposals under WA *Environmental Protection Act 1986*

- Assess impacts of proposal(s) on key environmental factors

ACT Planning and Development Regulation 2008

- Provisions yet to be utilised at a state level

Pressure for governments to do 'more with less' provides an opportunity for broader adoption of systematic SEA

- Fiscally constrained environments
- Strategic assessments create significant economic savings for government⁷
- Completed strategic assessments under the EPBC Act, and statutory reviews (e.g. the Hawke Review), can inform development of state strategic environmental assessment provisions
- To streamline administrative burden and improve planning outcomes

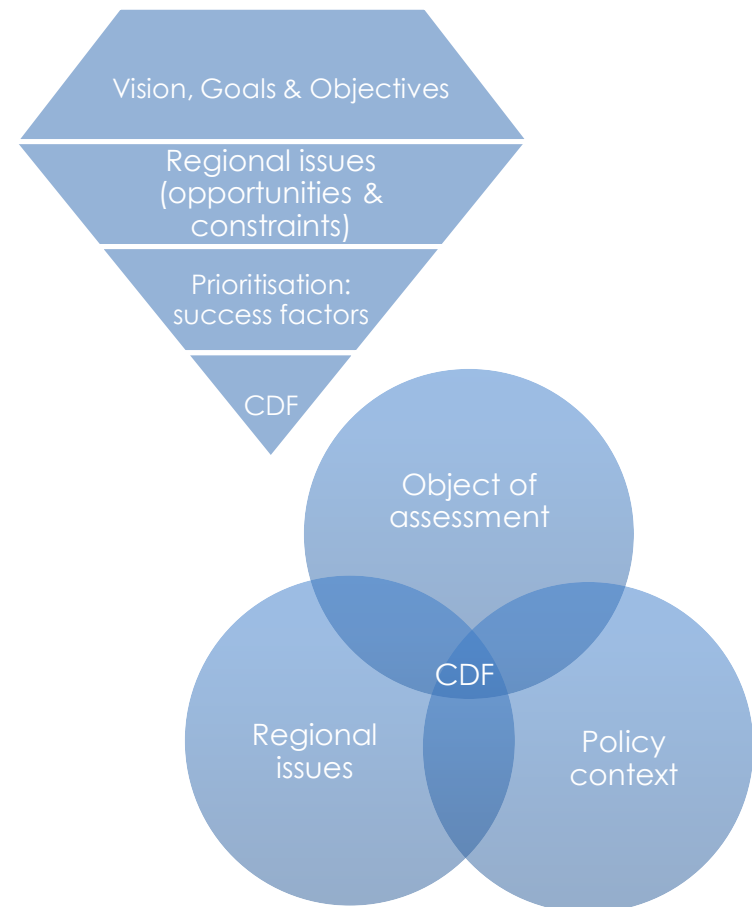
Figure 5: Estimated savings to government and business from strategic assessments under the EPBC Act (Source: Access Economics, 2011)

Strategic Assessment	State	Estimated savings
Melbourne Urban Growth Boundary	Vic	\$3.2 billion
Western Sydney Growth Centers	NSW	\$1.6 billion
Molonglo Valley Plan	ACT	\$253 million
Midland's Water Scheme	Tas	\$209.8 million

The challenge is to get out of the detail and get focussed on critical decision factors (CDFs)

- Surveyed state agencies expressed frustration EPBC Act strategic assessments focussed on detailed assessment of individual matters, rather than being elevated to a landscape scale assessment
- Integrated SEA proposes the uses CDF to focus attention on what is really important⁸
 - CDF should be fit for purpose, developed with with relevant stakeholders and related to regional priorities and success factors
 - They are an integration of objectives, regional issues (including opportunities & constraints) and the policy / legislative context
 - CDF should be refined to ensure they are holistic and focussed
 - Ideally there should be 3 – 5 CDF for each assessment and never more than 7

Figure 6: Critical decision factors are an integration of objectives, regional issues & macro policy context



Source: Adapted from Partidário (2012)

This approach to integrated SEA has broad application to current development challenges in regional Australia

- The agricultural sector contributes 3 per cent of GDP and a gross value of \$48.7 billion in 2010/11⁹
- Direct competition exists between Australia's highest quality agricultural land and gas resources (e.g. Darling Downs, Qld & Liverpool Plains, NSW)
- Community organisations like Lock the Gate Alliance apply increasing pressure to governments to avoid development impacts on agricultural land and water resources
- Integrated SEA could be applied in this context to resolve these conflicts early in the planning process
- For example, CDF for an assessment of CSG development could include:
 - Water resource management
 - Resilient environment (health & biodiversity)
 - Regional & local economic development
 - Management & governance

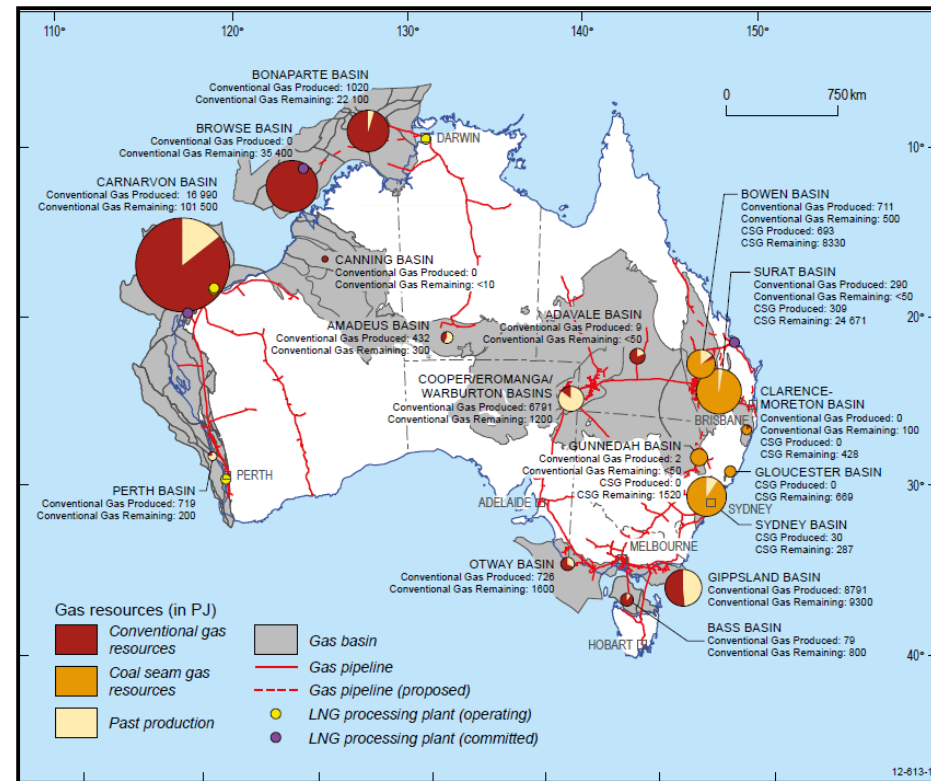


Figure 7: Location of Australia's gas resources and infrastructure
Source: Australian Gas Resources Assessment (BREE, 2012).

Focused critical decision factors guide analysis of complex information & target avoidance of impacts

Case study: Midlands Irrigation Scheme, Tas

- Assessment of water development strategy
- Commits to zero clearance of grasslands & no significant impacts to MNES
- Rules based assessment applied on a case by case to individual properties
- Landscape monitoring protocol in place for adaptive management

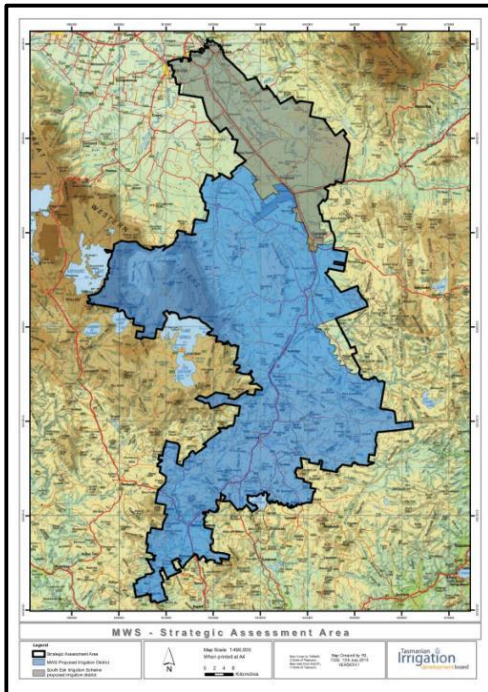


Figure 8: Location of Midlands Irrigation Scheme Strategic Assessment, Tasmania¹⁰

Case study: mapping social values in the Lower Hunter, NSW¹¹

- Community values in the Lower Hunter were mapped, including views on biodiversity, and preferences for conservation & development areas
- Heat maps produced to show location of values
- This consultation can inform CDFs when the Lower Hunter Regional Plan is developed

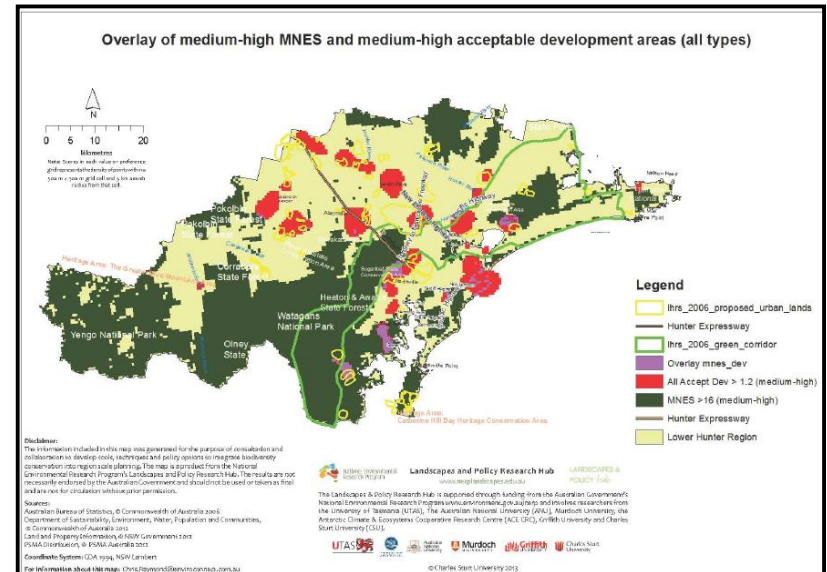


Figure 9: Heat map of MNES & development areas, Lower Hunter¹¹

¹⁰ Tasmanian Government, 'Strategic Assessment for the Water Access Program Midlands Water Scheme Program Report' (2011), Tasmania.

¹¹ Raymond C & Curtis A 'Mapping community values for regional sustainability in the Lower Hunter Region' (2013) University of Tasmania, Hobart.

The impacts of preferred scenarios can then be further mitigated by focusing actions in a regional context...

Case study: Great Barrier Reef Comprehensive Strategic Assessment

- Two complementary strategic assessments to protect the Outstanding Universal Value of the World Heritage Area (WHA)
- Utilised SEAs as a foundation for The Reef 2050 Long-term Sustainability Plan
- Designed to build resilience of reef systems to respond to 4 major threats:
 - Climate change, land based run-off, coastal land use change, and direct use
- Worked with multi-stakeholder Partnership Group
- Established a Vision & outcomes for seven themes with targets to track progress for the 139 actions
- Includes actions to avoid by:
 - Restricting ports and capital dredging to four priority ports
 - Banning dredge disposal within WHA
 - Better planning, for example; GBRMP zoning plans, water quality improvement plans, master plans for ports

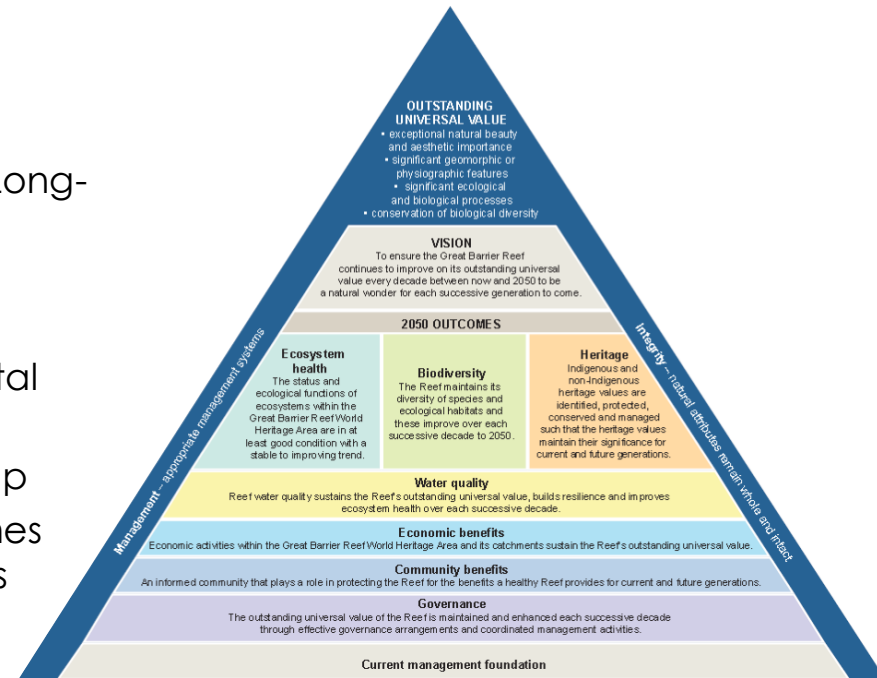


Figure 10: Protecting the Outstanding Universal Value of the Great Barrier Reef World Heritage Area¹²

...and should incorporate an adaptive management approach with integrated monitoring & reporting

Most Reef 2050 actions are directed at mitigation through:

- **Standard setting:** water quality and shipping, cumulative impact assessment guidelines
- **Good practice approaches:** ecotourism strategy, EMS for commercial fishers
- **Improved decision making:** developing a net benefit policy and offsetting guideline
- **Restoration:** removing Crown of Thorns Starfish, recovery programs for key sites
- **Improved information:** better mapping and modelling - especially for key species
- **Capacity building:** Reef Guardian councils and schools, economic opportunities with Traditional Owners
- **Building partnerships:** stewardship with Traditional Owners, Local Marine Advisory Committees
- **Targeted research:** working with NESP & AIMS to better understand key species and habitat requirements
- **Compliance:** with zoning plans, fishing operations and vessel tracking systems for ships



Reef 2050 is based on adaptive management approach:

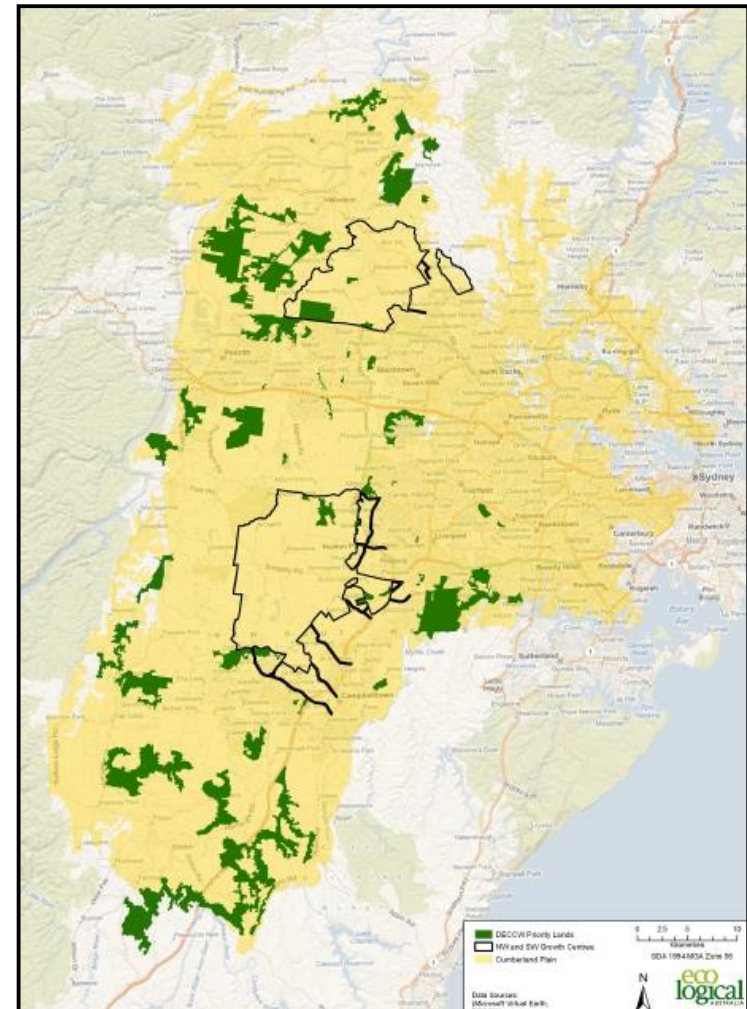
- with an integrated monitoring and reporting program
- against nominated SMART targets
- with 5 years reviews based on the statutory Outlook report

Offsets can be designed to deliver landscape conservation outcomes - supported by public & private partnerships

Case study: Sydney Growth Centres, NSW

- Impacts to Cumberland Plain Woodland offset into mapped 'priority conservation lands'
- Investment in conservation lands through \$530 million offset fund; prioritised with consideration of multiple values (e.g. social & heritage values)
- Option for offsets to remain in private ownerships through Biobanking agreements with landowners – increases community involvement
- Provides options for offsets under both strategic and project assessments
- Broad potential for other jurisdictions as a strategic approach to offsetting

Figure 11: NSW Government Priority Conservation Lands on the Cumberland Plain¹³



Successful integration of SEA requires action from government, industry & the community

So what's stopping us from doing it?

- Legislative reform – adding SEAs to state's planning / environmental assessment provisions
- Development lifecycle – breaking the mould to encourage early planning
- Utilising quality regional plans to say NO!

How do we drive the change?

- Who are our champions & leaders?
 - Industry? Traditional Owners? Farmers & Pastoralists?
- Informing the community to be political drivers for change

What's our role as a community of practitioners?

- Identifying opportunities early – working with our clients to showcase options
- Best practice design & implementation

What are the foreseeable challenges?

- Developing an effective decision matrix – particularly when there is limited information
- Limited reform in minority governments
- Short political lifecycle
- Incentives to 'game' the development system

