BL&A Brett Lane & Associates Pty. Ltd.
Ecological Research & Management

AGIC Sustainability Rating Tool

Biodiversity and Ecosystems

Acknowledgements

- Scheme and Tool Authors: Roel Plant and the team at Institute for Sustainable Futures, University of Technology Sydney
- Original Peer Reviewer: Brett Donaldson
- Those involved in Piloting, Stage 1
- Rick Walters, AGIC

Outline of Presentation

- Overview of Ecosystems and Biodiversity Component of Tool
- Progress to date
- Six key criteria covered in the category
- Two examples of criteria of the rating tool
- Two **brief** project examples of sustainable practice with an ecological focus

Principle

- ***"This [Biodiversity and Ecosystems] theme… is grounded in the recognition that healthy, functioning ecosystems are critical to the wellbeing of humans, and that biodiversity plays a vital role in maintaining ecosystem functioning."***

Ecosystems and Biodiversity – Their Relevance

- Regulatory controls
  - State native vegetation removal controls (consent required)
  - State threatened species legislation
  - *Environment Protection and Biodiversity Conservation Act 1999*
- Policy directions
  - Local and state planning policies (high level)
  - Offset Policies
- Community Expectations and Perceptions
  - Protection of native vegetation (assoc. visual impacts)
  - Protection of wildflowers
  - Protection of threatened species
  - 'Politically active species' (e.g. Orange-bellied Parrot)

Infrastructure developers need a framework to identify and manage risks to ecosystems and biodiversity, and for managing project risks associated with potential impacts on ecosystems and biodiversity

SUSTAINABILITY RATING SCHEME & TOOL

Progress to Date

- Ecosystems and Biodiversity were originally separate themes and are now amalgamated
- Ecological impacts involve many and complex pathways – issue for achieving simplicity/useability – for example
  - How many processes and species are potentially affected by a project?
  - Ecological context: pristine vs disturbed/altered landscape
- Infrastructure projects are many and varied – for example
  - Construction of a new section of the Pacific Highway (mainly terrestrial impacts)
  - Port Phillip Bay Channel Deepening (exclusively marine impacts)
- Challenge is capturing variety of impact pathways and mitigation responses in a simple, easy to follow tool
- Eco Tool now ready for its 2nd pilot phase

Eco - Overview of Criteria

Habitat affected	To reward the development of an estimate of the habitat affected against which improvements can be measured.
Avoidance of high ecological value sites	To reward avoidance of high ecological value sites.
Change of ecological value	To reward projects that maintain or enhance the ecological value of their sites.
Biodiversity enhancement	To reward projects that deliver a net enhancement to ecosystems and biodiversity.
Habitat connectivity	To reward maintenance and improvement of habitat connectivity by maintaining functional connectivity between tracts of native vegetation, providing habitat for multiple species and processes.
Ecological processes	To encourage and recognise projects that avoid and minimise impacts on ecological processes that underpin biodiversity

Example – Eco 1: Habitat affected

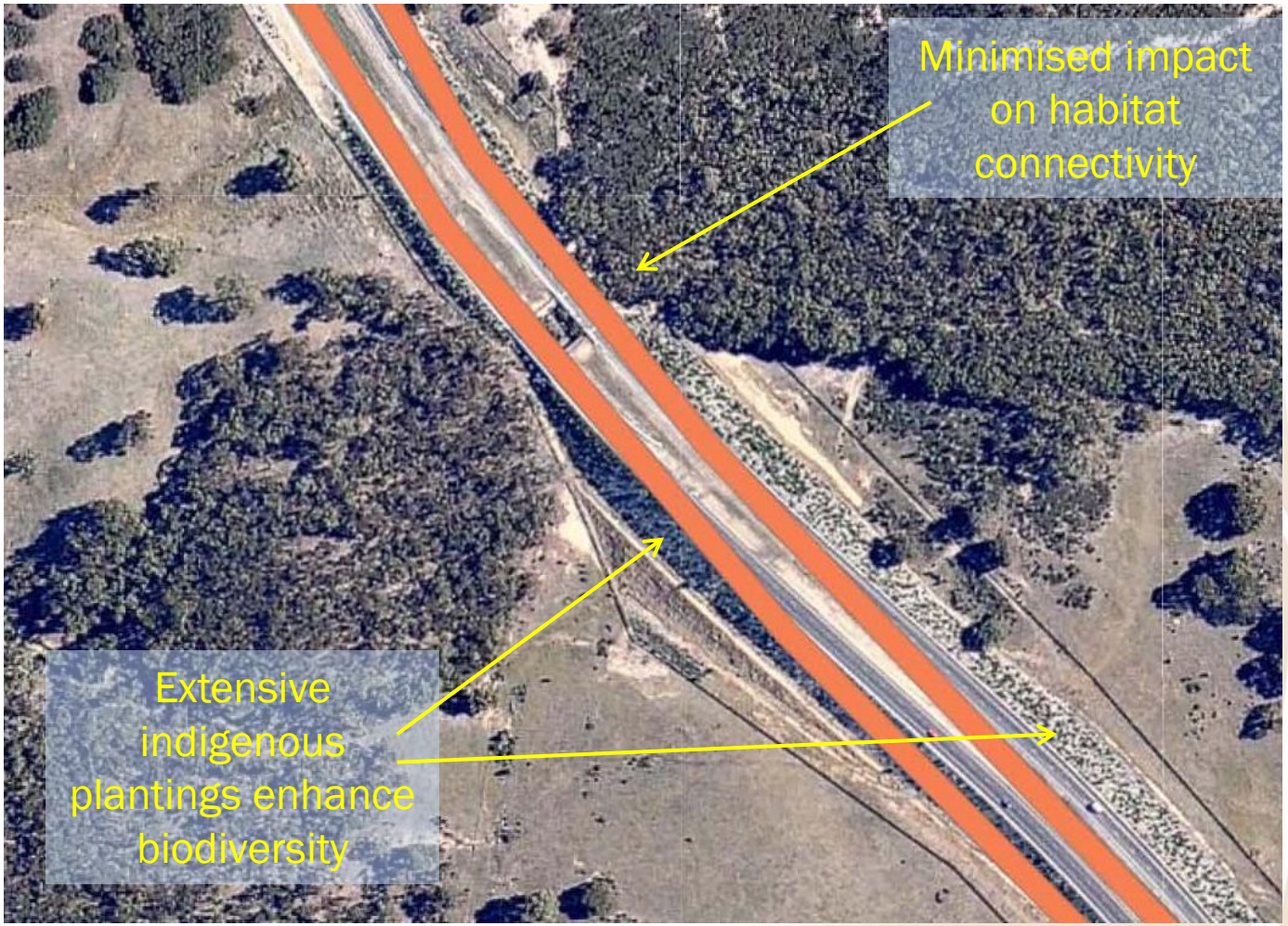
Level 1 – 1 point	Level 2 – 2 points	Level 3 – 3 points
An estimate of direct habitat affected by operation of the reference design is developed. AND The estimate is subject to internal auditing.	The requirements for level 1 are achieved. AND The estimate of habitat affected also covers the direct habitat impacted by construction of the reference design. AND The estimate is audited by a qualified independent auditor.	The requirements for level 2 are achieved. AND The habitat affected estimate also covers the significant indirect impacts associated with construction and operation of the reference design (e.g. fringe effects, discharges etc).
Have habitat impacts been recognised and have project impacts been measured AND subject to internal checking?	*Have the "incidental" additional habitat impacts been recognised as well and subject to independent checking?*	*Have **all** potential habitat impacts been measured?*

Example – Eco 6: Ecological processes

Level 1 – 1 point	Level 2 – 2 points	Level 3 – 3 points
Ecological processes that underpin significant biodiversity values have been identified as part of project impact assessment.	The requirements for level 1 are achieved AND Links between ecological processes and the project's impacts have been identified and documented.	The requirements of Level 2 are achieved. AND Key ecological processes linked to project impacts and measured, and biodiversity impact predicted. AND Adaptive management of project impacts based on measurement of impacts on ecological processes.
Has an ecosystems approach been adopted?	*Have relevant key ecological functions been understood?*	*Are impact predictions well founded and do they inform project delivery and operation?*

Example – Calder Freeway, Taradale, Vic - 1

Example – Calder Freeway, Taradale, Vic - 2



Conclusions

- Ecosystems and Biodiversity are a critical relevant consideration in design, construction and operation of infrastructure projects
- Challenge for the tool is capturing variety of impact pathways and mitigation responses in a simple, easy to follow tool
- Tool now ready for its 2nd pilot phase
- If you are involved in piloting, please take a sharp pen to the tool and provide constructive feedback