



Policy and Practice Variability for Cumulative Effects Assessment in Western Australia

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DISCOVERERS WELCOME

Original aim of paper:

- Showcase CEAM policy & practice in Western Australia – link to practice worldwide

What happened...

- Mixed examples evident (very good to very bad)... why?
- Reframing of IA to understand treatment of CEAM – may temper practitioner expectations...




out looking for patterns, but may instead have found provocation!

Key message: to understand CEAM in a given situation consider these 4 assertions

1. SEA does not really exist! Good IA encompasses a spectrum of strategic possibilities. Separation/elevation of SEA enables 'bad' project IA – i.e. permits CEs to be ignored.
2. IA is only needed where uncertainty exists – learning by doing. Higher certainty = easier CEAM.
3. Proponents likely to actively resist CEAM, regardless of IA requirements (e.g. like alternatives).
4. Regionally focused IA (i.e. more strategic) addresses CEs differently to project level IA. Ideally need both types.

Assertion 1. SEA does not exist

Background - Review of EIA in Western Australia (by the EPA) underway 

- one aim is to prepare guidelines for SEA

Issues of concern:

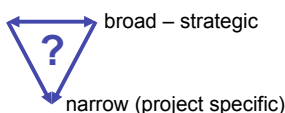
- create new assessment process (existing 3+ IA processes already generate confusion and resentment - why add a new one?)
- SEA defined as 'better' than project IA for various reasons
 - i.e. implies that project IA is 'bad' or deficient

Assertion 1. SEA does not exist

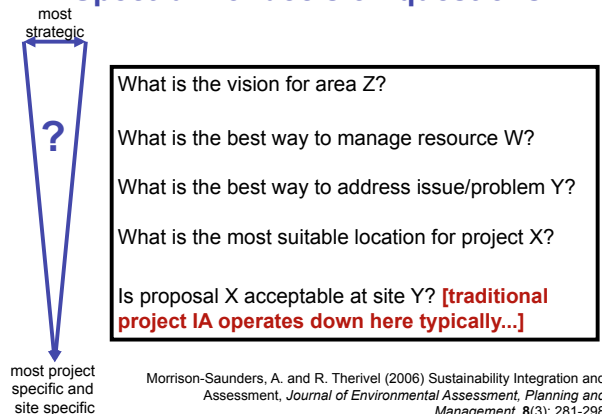
IA occurs across a strategic spectrum of opportunity

Consider the "decision question" being asked

- (relates to nature of proposal)



Spectrum of decision questions



Morrison-Saunders, A. and R. Therivel (2006) Sustainability Integration and Assessment, *Journal of Environmental Assessment, Planning and Management*, 8(3): 281-298

Only one difference with SEA I can see...
Governance perspective

- SEA establishes framework or criteria for development of subsequent projects or approvals
 - e.g. undertaken by different proponent
 - key issue is how approval conditions will be administered and implemented



Assertion 2. Uncertainty & learning

IA is all about...

- tackling/managing uncertainty
- 'having a go' / learning by doing



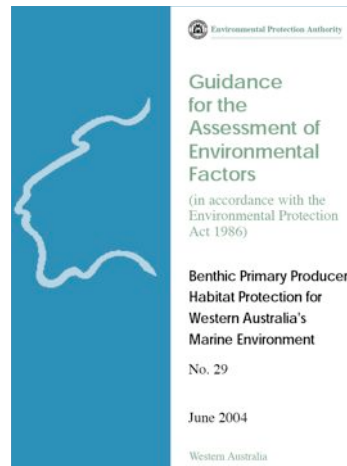
Where clear regulation exists (e.g. pollution control standards) IA often is not needed...

IA leads to development of policy and regulation (once issues understood)

Assertion 2. Uncertainty & learning
Relating this to CEAM...

Where there is certainty (e.g. regulation or policy), CEAM is relatively easy and sophisticated

[Note: CEAM itself is a major source of uncertainty – but not typically a trigger for IA?]



Western Australian example

EIA guidance prepared by Marine Branch scientists within Dept of Env



EPA principles...

Guidance Statement No. 29
 Benthic Primary Producer Habitat Protection June 2004

3. Proponents will need to demonstrate 'best practicable' design, construction methods and environmental management aimed at minimising further damage/loss of BPPH through indirect impacts.
4. The EPA's judgement on environmental acceptability with respect to damage/loss of BPPH and the risk to ecosystem integrity will be based primarily on its consideration of the proponent's calculations of cumulative loss of BPPH within a defined management unit (including best, most probable and worst case scenarios), together with supporting ecological information, and expert advice, as required.
5. Where substantial cumulative losses of BPPH have already occurred, proponents should consider some form of environmental offset for the additional damage/loss of BPPH and/or their associated BPP communities within the management unit.



Defined cumulative loss thresholds

Cumulative loss thresholds for BPPH within defined management units for six categories of marine ecosystem protection that will be applied only after proponents can demonstrate to the EPA that all options to avoid/minimise damage/loss of BPPH have been considered.

Category	Description	Cumulative loss threshold <i>(percentage of original BPPH within a defined management unit)</i>
A	Extremely special areas	0%
B	High protection areas other than above	1%
C	Other designated areas	2%
D	Non-designated area	5%
E	Development areas	10%
F	Areas where cumulative loss thresholds have been significantly exceeded	0% net damage/loss (+Offsets)

Assertion 3. Proponents are likely to resist CEAM

- regardless of IA requirements
 - e.g. like treatment of alternatives



EIA requirements for CEAM in WA (i)

2 Objectives of EIA

Where a proposal is subject to formal EIA, it is the responsibility of the proponent, through the EIA process, to demonstrate that

...

- (b) the unavoidable impacts of the proposal should be found to be *environmentally acceptable*, taking into account *cumulative impacts* which have already occurred in the region, ...



(Environmental Impact Assessment (Part IV Division 1) Administrative Procedures 2002. *Government Gazette*, WA, No. 26 special, 8 February 2002, pp561-580, s2)

EIA requirements for CEAM in WA (ii)

6.3 Environmental Review Document

...

- 6.3.5 The proponent should ensure that an environmental review focuses on addressing the more significant environmental issues/factors and should include but not be limited to:

...

- (c) placing the proposal in a *regional setting* in relation to existing biophysical impacts and *potential for future cumulative impacts*.



(Environmental Impact Assessment (Part IV Division 1) Administrative Procedures 2002. *Government Gazette*, WA, No. 26 special, 8 February 2002, pp561-580, s6.3)

Assertion 3. Proponents are likely to resist CEAM

[Apart from issues of commercial secrecy and not wanting to look beyond project boundaries...]

- Major environmental battles/victories generally CE related
 - e.g. DDT, acid rain, CFCs, smoking effects on human health, climate change...
- Businesses continue to operate and make profit while actively opposing change until the science is impossible to ignore

Why would we expect CEAM in IA to be any different?



Assertion 4 Regionally focused IA addresses CEs differently to project level IA



- at regional scale focus on strategic issues
 - e.g.
 - vegetation corridors & ecosystem integrity
 - infrastructure/services provision (e.g. deep sewage network)
 - i.e. BROAD AND SHALLOW

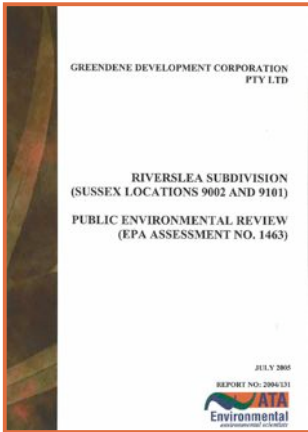


- at project level focus on specific impacts
 - e.g.
 - specific biodiversity impacts and mitigation
 - drainage/nutrient management on a given site
 - i.e. NARROW AND DEEP



Assertion 4 Regionally focused IA addresses CEs differently to project level IA

- ideally need both for an effective CEAM
- regional understanding may require government involvement
- if just attempt CEAM at project level, it is unlikely to be meaningful



Western Australian example

Cumulative impact of vegetation loss

ATA Environmental 2005 *Greendene Development Corporation Pty Ltd, Riverslea Subdivision (Sussex Locations 9002 and 9101) PER (EPA Assessment No. 1463)*, Report No. 2004/131, ATA Environmental

3.2.5 Potential Impacts

ATA Environmental (2005), p17

Vegetation Significance

3.2.6 Cumulative Impacts

The proposed Riverslea Gardens subdivision development (i.e. proposal area) will result in the loss of approximately 6.3ha of native vegetation. In terms of the loss of vegetation from the proposal area, the remainder of the Riverslea subdivision which has already been constructed and other proposed subdivision developments identified for the local Margaret River area, the cumulative impact of loss of native vegetation is considered to be minimal. Other residential subdivision developments are proposed for adjacent Lots 9013 and 756 Tingle Avenue and Lot 27 Bussell Highway (Figures 4 and 5). An additional 213ha of regrowth *Corymbia calophylla/Eucalyptus marginata* subsp. *marginata* vegetation similar to that occurring in the upland portions of the proposal area was identified from an area of State Forest located approximately 2km to the north of the Margaret River townsite (Figure 6). The flora and vegetation on these sites was surveyed by ATA Environmental during October 2004 (Appendix 1). These proposed subdivision developments to the south of the proposal area may result in the loss of up to 11.5ha of vegetation similar to that occurring within the Riverslea subdivision study area and approximately 73ha of predominantly parkland cleared Marri/Peppermint/Blackbutt.

3.2.5 Potential Impacts

Vegetation Significance

3.2.7 Proposed Management



The loss of approximately 6.3ha of native regrowth upland vegetation from the proposal area will be partially off-set by the rehabilitation of approximately 1.7ha of the degraded tributary immediate abutting the southern boundary of the proposed subdivision. The rehabilitation will result in the creation of a sumpland/dampland (i.e. seasonally waterlogged/inundated) type wetland surrounded by suitable wetland heath and thicket vegetation. The sumpland/dampland will contain and treat short-term flows of stormwater from the subdivision. Species used in the rehabilitation will be consistent with the wetland vegetation that would have occurred in the creekline prior to clearing for agriculture (Figure 2). Further detail relating to the creation and proposed management of the sumpland/dampland will be provided in the Stormwater and Watercourse Management Plan that will be prepared for the subdivision.

ATA Environmental (2005), p17

Putting the pieces together

- | | |
|---|---|
| <ol style="list-style-type: none"> 1 High level decision question - <i>what is the best way to...?</i> 2 Certainty (policy/regs) - understand issues 3 CE science compelling 4 Regional scale context | <p>Low level decision question - <i>is this proposal acceptable?</i></p> <p>Uncertainty - don't understand</p> <p>Proponent resists CEA</p> <p>Project scale only</p> |
|---|---|

↓ **More likely to consider cumulative effects**
↓ **Unlikely to consider cumulative effects**

Conclusions: understanding CEAM treatment based on 4 assertions

1. SEA does not really exist! Instead of promoting SEA, IA practitioners should 'push practice' up the strategic spectrum ("What is the best way..." decision question). More chance of CEAM being addressed properly.
2. IA is only needed where uncertainty exists. Higher certainty = easier CEAM. Practitioners can promote better practice here - demand sound analysis of CEs.
3. Proponents likely to actively resist CEAM. Scientific evidence needed to make case for CEAM + practitioner pressure.
4. Within IA practice we need both regionally and project focused CEAM.



Thank you

Questions, comments, discussion...?

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