

Professional practice

Effectiveness of non-legal EIA guidance from the perspective of consultants in Western Australia

Shane Waldeck, Angus Morrison-Saunders and David Annandale

The provision of environmental impact assessment (EIA) guidance is generally claimed to be beneficial for improving practice through local capacity building. However, to date no studies have investigated their effectiveness. In Western Australia, EIA guidance materials are intended to allow for better environmental protection; increased certainty; enhanced consistency of advice given to Government; proposals to be designed to meet environmental objectives from the outset; and to provide a clearer basis for Government decision-making. Twenty practicing environmental consultants were interviewed about the effectiveness of guidance materials at achieving these objectives. It was found that EIA guidance influenced the practice of consultants and was perceived as effective in enhancing the outcomes of the EIA process overall. However, a number of shortfalls were identified. Suggestions are made for increasing the utility of future guidance materials thereby enhance the effectiveness of EIA practice itself.

Keywords: EIA guidance; practitioner perspectives; capacity building; consultants

Shane Waldeck is in the Division of Science and Engineering, Murdoch University, South Street, Murdoch, WA 6150, Australia; E-mail: swaldeck@iinet.net.au. Angus Morrison-Saunders (to whom correspondence should be addressed) is at the same address; Tel: +618 9360 6125; Fax: +618 9360 6787; E-mail: A.Morrison-Saunders@murdoch.edu.au. David Annandale is at the same address; Tel: +618 9360 6181; Fax: +618 9360 6787; E-mail: D.Annandale@murdoch.edu.au.

THE NEED FOR INCREASED guidance to improve the practice of environmental impact assessment (EIA) has been repeatedly suggested in evaluations of the performance of impact assessment (for instance, Nelson, 1994; Sadler, 1996; Morgan, 1998; Wood, 1999). For example, in his comparative review of EIA across several jurisdictions, Wood (1999) stated that guidance was a valuable aid not only for those responsible for preparing EIA reports, but also for those reviewing and making decisions.

A fundamental objective of these materials has been to improve the effectiveness of environmental assessment, and to strengthen the practice of EIA overall. To date, there have been no studies aimed at determining the effectiveness of EIA guidance materials in achieving these aims. The purpose of this study was to investigate the utility of guidance materials as perceived by practitioners making use of them in their day-to-day EIA work.

Role of EIA guidance

Major shortcomings of EIA processes include the failure to integrate environmental considerations sufficiently with decision-making (Sadler, 1996; Wathern, 1988) and uncertainty in the outcome of EIA impacts on the effectiveness of the process. Additionally, Ortolano and Shepherd (1995) have suggested that EIA was often embarked upon after important decisions had already been made, and therefore the primary function of the process was to suggest mitigations for a project already selected.

One application of EIA guidance materials by

regulators is to urge proponents to incorporate environmental issues and considerations into the design stages of a project. This is intended to increase certainty and reduce delays for proponents as they become aware of the requirements and expectations to be met in advance.

The EIA system in Western Australia under the *Environmental Protection Act 1986* (WA) has been well documented previously (Wood, 1994; Wood and Bailey, 1994; Morrison-Saunders and Bailey, 2000) and it is not intended to duplicate this here. In short, the regulation and administration of the EIA process is the responsibility of the Environmental Protection Authority (EPA); a five-member independent advisory body of experts who provide overarching policy advice to the Minister for Environment. The range of stakeholder groups involved in the EIA process includes proponents, the public and decision-making authorities, who all may benefit from the provision of guidance in undertaking their respective roles.

To date, the EPA has published 31 individual non-legal EIA guidance documents. These range from items addressing a specific location (for instance, a particular catchment or region) to environmental issues (for instance, control of noise or dust emissions) or to EIA techniques (for instance, how to conduct biological surveys). Guidance on legal aspects of the EIA process has also been produced in Western Australia, but this was not considered in this study.

The EIA system in Western Australia focuses on the identification of relevant environmental factors, the establishment of EPA objectives for these factors, and an evaluation of whether proposed management measures can satisfy these objectives (Morrison-Saunders and Bailey, 2000). A project is found to be environmentally acceptable when the EPA objectives for relevant environmental factors can be met (Sippe, 1997).

The development of guidance materials was intended to address priority factors to establish the grounds for judging the environmental acceptability of developments in advance of project planning and design (EPA, 2000). They were also developed in response to a review of the *Environmental Protection Act 1986* (WA) in 1992 in which a key sentiment expressed related to the uncertainty of the EIA process. Specifically, EIA guidance in Western Australia is intended to enhance outcomes in the following ways (EPA, 2000):

- allow for better environmental protection;
- increase the certainty of outcome of EIA for proponents and public, while preserving the rights of proponents to have proposals judged on their merits;
- enhance the consistency of advice given to Government;
- permit proposals to be planned and designed to meet guidance principles from the outset with

increased public confidence and with no surprises for the proponent; and

- provide a clearer basis for Government decision-making.

These expected benefits provided the starting point for this study. Although applicable to all stakeholders in the EIA process, this study investigated EIA guidance materials directed mainly at proponents. The target population for this research was environmental consultants, as they do most of the EIA work on behalf of proponents (Morrison-Saunders *et al*, 2001).

This paper reports on the research undertaken to determine the effectiveness of non-statutory guidance documents developed by the EPA. The utility of EIA guidance was examined in the context of the consultants' perceptions of the extent to which the documents had achieved the intended benefits listed previously. Suggestions for improving EIA guidance materials in the future were also sought.

Methodology

A total of 20 personal interviews with EIA consultants working in Western Australia were performed during 2002: the practitioners were asked to provide their perceptions on the effectiveness of EIA guidance materials developed by the EPA. The subjects were selected purely on their experience with the use of EIA guidance documents. The aim of the interviews was to obtain the respondents' subjective views on the utility of guidance materials.

Data was collected by means of a standardized questionnaire, comprising a mixture of both qualitative (questions 1, 2 and 4 in Table 1) and quantitative (question 3a–3e in Table 1) questions. For the qualitative (or open-ended) questions, EIA practitioners were invited to respond freely and their answers were recorded and subsequently transcribed for analysis. Quantitative data was obtained using closed-ended questions and a five-point Likert scale (ranging from 'important' to 'not important').

Table 1. Survey questions

-
1. How do you use the EIA guidance materials?
 2. What are the specific components of the guidance materials that have been of most use in your practice of EIA?
 3. How important have EIA guidance materials proved in:
 - a. Allowing for better environmental protection?
 - b. Increasing the certainty of outcome of EIA?
 - c. Enhancing the consistency of advice that you have passed on to the EPA?
 - d. Permitting proposals to be planned and designed to meet guidance principles from the outset, with no surprises?
 - e. Providing a clearer basis for Government decision-making?
 4. What changes would you recommend be made to improve the utility of future guidance materials produced by the EPA?
-

Results

The results obtained for each of the research questions in Table 1 are now addressed in turn.

Applications of guidance materials

Guidance was employed by the consultants for a number of purposes, of which the most commonly cited are displayed in Table 2. It can be clearly seen that most consultants employed guidance materials for the purpose of determining the environmental acceptability of a proposal through gauging the significance of its environmental impacts. This finding demonstrates the apparent success of EIA guidance in terms of the EPA's (2000) original intention for creating them.

Utility of the components of guidance materials

Conflicting opinions were evident among the sample of consultants interviewed concerning the utility of EIA guidance documents. Overall, it was the core 'guidance' component offered in these documents that had proven to be the most useful aspect of the guidance documents. More specifically, the quantitative criteria were identified as useful, because these values increased the certainty of outcome of the EIA process. Conversely, the difficulty of gaining closure with guidance that was of a more conceptual nature was noted.

There were mixed perceptions, however, on the utility of the prescriptive criteria contained within guidance statements. On most occasions, an increase of certainty in the outcomes of the EIA process through the provision of quantifiable standards was perceived. However, some respondents suggested that in some instances, the certainty of the outcome of EIA was not only decreased by the guidance documents, but they generated confusion as to what was required by regulators.

All components of the EIA guidance materials were found to be used by at least some of the consultants interviewed. However, there was some

discrepancy about which parts were the most useful to consultants. This issue is addressed later on in the discussion of how future guidance materials could be improved.

Effectiveness of guidance in enhancing outcome

A high proportion of the environmental consultants interviewed perceive guidance to have largely been a positive influence in enhancing the outcome of the EIA process, and to some extent, to have realized its intended benefits. This is illustrated through the graphical display of the perceptions of respondents on the extent to which the guidance statements had influenced the outcomes of EIA (Figure 1). Here, the collective responses of 'important' and 'somewhat important' consistently dominate the figures, representing more than 70% of respondents for each question. These findings are consistent with the literature, where the use of guidance has been advocated to rectify deficiencies in the impact assessment process, and to enhance the effectiveness of EIA in practice (for instance, Bailey and Finucane, 1989; Glasson, 1994; Bowen, 1997).

The only question with a notable difference in pattern of answers received concerned the extent to which EIA guidance was successful in providing a clearer basis for government decision-making. In this instance, a relatively high number of respondents did not feel confident in making a judgment. Several stated that they were not qualified to make accurate judgments on this, because of a lack of personal involvement in this part of the EIA process. Consequently many chose the 'neutral' category and less committed themselves to the 'important' category.

Improving the utility of guidance materials

To improve the effectiveness of guidance materials (and thereby the practice of EIA), the study sought recommendations from practitioners for the future development of EIA guidance documents. This question received the most detailed responses, with several suggestions recurring across the field of consultants; the most common are displayed in Table 3.

It appeared that there was a disparity in both the

Table 2. Most frequently cited uses of guidance materials

Stated uses of EIA guidance materials	Frequency
As a reference point to determine the significance and sensitivities to which a project is going to be subject	14 (70%)
To determine the likely acceptability of elements of a proposal	11 (55%)
To determine the EPA's thinking in relation to certain aspects of the environment	8 (40%)
To justify the approach of the EPA on a particular aspect of the environment to a proponent	7 (35%)
As an aid in the preparation of environmental documents	3 (15%)

A high proportion of the environmental consultants interviewed perceive guidance to have largely been a positive influence in enhancing the outcome of the EIA process, and to some extent, to have realized its intended benefits

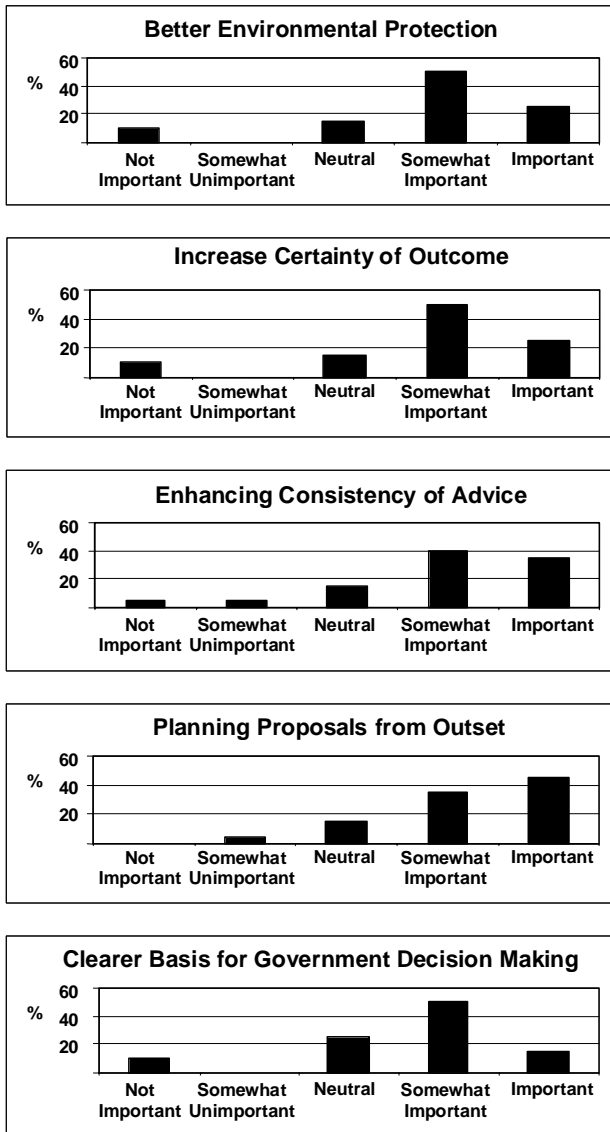


Figure 1. Practitioner perspectives on the extent to which Guidance Statements enhanced the outcomes of the EIA process

intended purposes of the ‘draft’ status of guidance and the extended timeframe within which some of the EIA guidance had remained as draft and failed to progress to final. A number of issues arose from the

Table 3. Suggested improvements for future development of guidance materials

Suggestions for improving EIA guidance documents	Frequency
Release and trial application of the draft form of the guidance in the assessment of proposals was seen as an issue that needs to be addressed	8 (40%)
Rectify the issue of the purpose of guidance materials being taken as minimum standards, rather than for guidance	7 (35%)
Increase industry input into the development of EIA guidance	6 (30%)
Reduce the size of the guidance documents to enhance their utility	5 (25%)

prolonged period by which the statements remain in draft stage, including:

- queries from proponents on whether the form of guidance currently available as draft was the most up to date;
- uncertainty on the validity of criteria contained within drafts; and
- criticism that the information contained in draft forms of guidance was being applied to proposals as though it was final and ratified by the EPA.

It was the perception of consultants that EIA administrators require them to demonstrate that their proposals meet the criteria contained within a draft guidance document. Consultants felt that draft guidance should be for comment only and that demonstration of compliance with this material should not be expected. Furthermore, treating draft guidance as though it is final reduces the flexibility in proposal design and management by consultants. Treating draft guidance as though it was finalized appears to impact negatively on its value. The purpose of guidance materials in this form was perceived to be for trial application and comment, not for rigid application in the assessment process.

The misunderstanding of the purpose of guidance materials as that of a minimum standard, and the subsequent application of the criteria contained therein, was seen to have impacted on their utility and, to some extent, their subsequent effectiveness in improving EIA practices. At times, the guidance materials were seen as a minimum standard that must be met for a proposal to be deemed acceptable. This belief was compounded by the perceived meticulous application of standards contained within the guidance materials during assessment.

Bates (2002, page 276) suggests that the purpose of developing EIA guidelines is usually to provide informal guidance and policy on procedural matters. In contrast, legally binding requirements for EIA are promulgated in regulations under relevant legislation. However, he reports that certain environmental guidelines have been given enhanced legal status in the Australian state of New South Wales by being incorporated in regulations governing the assessment of likely impacts and in the content of environmental impact statements.

EIA guidance in Western Australia is not identified in EIA regulations but the situation is somewhat analogous at least in practice to that described by Bates (2002). Although EIA guidance materials in Western Australia are non-statutory documents, some respondents suggested that they are used prescriptively by EPA assessment staff. Compliance with guidance criteria has been assessed by EPA staff during EIA evaluation and subsequent approvals based on this assessment process are legally binding on proponents. Hence information that is intended for ‘guidance’ purposes alone, may in effect become legally binding. This issue is not a reflection on EIA guidance

materials themselves, but rather how they are used or applied by EIA decision-makers.

A second common suggestion for improving the utility of EIA guidance concerned whether these documents represent minimum standards to be met by proponents. Along with the attitude that the guidance is to be utilized literally, comes a mentality that attainment of the values stated within EIA guidance is all that is required to ensure approval of a proposal. The use of the guidance materials in this way does not promote the principle of continuous improvement, which is one of the objectives of EIA in Western Australia (*Government Gazette*, 2002), as proponents cease to look beyond the guidelines in an attempt to achieve best practice.

Consultants were of the opinion that guidance materials that were more workable, containing agreed and realistic environmental objectives, would be produced by adopting a co-operative process of guidance material development that included stakeholder input. This would promote a more balanced view on each factor of EIA, through an increased blend of experience from regulator and industry. Additionally, it was the perception of consultants that a more co-operative process of developing guidance documents would bring about their increased utility. This arose from the belief that a combined effort of EPA and industry co-operation would result in the production of objectives for environmental protection that are agreed upon by both parties, rather than having EIA guidance simply handed down by the EPA without regard for what industry as a whole requires.

Some consultants believed that the utility of EIA guidance documents would be improved through a synthesis of guidance materials to simply display the statement of the EPA's policy, or objectives regarding environmental factors. In the process of tailoring an environmentally acceptable proposal, consultants may be required to refer to a number of guidance documents from the 31 produced to date, in addition to guidelines developed by other decision-making authorities. The process of sifting through the entire content of guidance documents to find the relevant information was seen to be costly of consultant's time. One suggested improvement was a reduction in size to just give the 'core' component of guidance relating to the factor of EIA. The reasoning behind this request was that consultants believed many of the guidance documents to be verbose. As one respondent stated: "the shorter they are, the easier they are to interpret and the easier they are to use".

This suggestion to display only the essential guidance offered by the EPA on a factor of impact assessment, conflicts with the previously noted finding that no component of guidance materials were of no use in the consultants' practice of EIA. It was evident that the entire contents of the guidance documents were useful at some point in the development of proposals. To resolve this apparent conflict, perhaps a restructuring of the guidance materials is

warranted. This could be achieved by the upfront signposting of the 'core' guidance section in the document, so that stakeholders would be given the opportunity to determine the views of the EPA and associated objectives for an environmental factor at the outset. The reader would then have the opportunity to peruse the remainder of the document for further information as desired.

Conclusions and lessons learnt

The use of guidance materials to improve EIA in practice has been widely advocated. This study was a first attempt to determine the effectiveness of EIA guidance materials based on practitioner perspectives. Some light has been shed on the success of these documents at achieving their intended benefits.

Consultants generally found EIA guidance currently in circulation in Western Australia to be useful. However, they identified several aspects in need of attention to improve their utility. To further increase the effectiveness of guidance materials, greater industry consultation during their formulation was advocated by EIA practitioners. This would allow a more balanced view on environmental protection to be gained, with more readily achievable objectives. Additionally, the purpose of guidance is required to be clearly defined, both for use by consultants and EPA assessment staff. The perception of guidance as regulations or minimum standards, rather than purely to offer advice, appears to have impacted on their effectiveness in the Western Australian EIA system.

The extended time period in which the guidance document remains as 'draft' ideally should be shortened. This would ensure that perceived issues arising from the prolonged draft status of guidance documents were addressed. It was believed that a reduction in size of the guidance materials to simply display the 'core' guidance, would free up consultant's time that is otherwise spent on screening the entirety of these documents. This was contradictory to the views of consultants that all of the components of the guidance materials were of use in their practice of EIA, an issue that may be resolved through a simple restructuring of the documents.

Overall, guidance materials were mostly used by practitioners to determine the environmental acceptability of a proposal as intended by the EPA. They were also considered to be valuable in meeting the EPA's five objectives for EIA guidance. Specifically, practitioners perceived that they allowed for better environmental protection; increased the certainty of outcome of the EIA process; enhanced the consistency of advice given to Government; permitted proposals to be designed to meet environmental objectives from the outset; and provided a clearer basis for Government decision-making. That is, in the perceptions of consultants, the guidance materials did appear to be influential in the practice of

EIA, and were enhancing the outcomes of the EIA process. The findings of this study confirm the suggested benefits of developing EIA guidance for capacity-building purposes.

References

- Bailey, J, and M Finucane (1989), *Environmental Impact Assessment Administrative Procedures: a Review of Current Procedures and Recommendations for Change* (Environmental Protection Authority, Perth, Western Australia).
- Bates, G M (2002), *Environmental Law in Australia* (LexisNexis Butterworths, Sydney).
- Bowen, B (1997), "Environmental management systems and environmental regulation", *Australian Environmental Law News*, 3, pages 21–25.
- EPA, Environmental Protection Authority (2000), *Development of Guidance Statements for the Assessment of Environmental Factors*, pamphlet (Environmental Protection Authority, Perth, Western Australia).
- Glasson, J (1994), "Environmental impact assessment: the next steps?", *Built Environment*, 20(4) pages 277–279.
- Government Gazette (2002), "Environmental impact assessment (part IV division 1) administrative procedures 2002", *Government Gazette*, Western Australia, 26 (special), 8 February, pages 561–580; available at: < http://www.epa.wa.gov.au/docs/1139_EIA_Admin.pdf>, last accessed 10 April 2003.
- Morgan, R K (1998), *Environmental Impact Assessment: a Methodological Perspective* (Kluwer Academic Publishers, The Netherlands).
- Morrison-Saunders, A, and J Bailey (2000), "Transparency in environmental impact assessment decision-making: recent developments in Western Australia", *Impact Assessment and Project Appraisal*, 18(4) pages 260–270.
- Morrison-Saunders, A, D Annandale and J Cappelluti (2001), "Practitioner perspectives on what influences environmental impact assessment quality", *Impact Assessment and Project Appraisal*, 19(4) pages 321–325.
- Nelson, P (1994), "Better guidance for Better EIA", *Built Environment*, 20(4) pages 280–293.
- Ortolano, L, and A Shepherd (1995), "Environmental impact assessment: challenges and opportunities", *Impact Assessment*, 13(1), pages 3–30.
- Sadler, B (1996), *International Study of the Effectiveness of Environmental Assessment, Final Report, Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance* (Minister of Supply and Services, Canada).
- Sippe, R (1997), "Establishing rules for environmental acceptability for reviewing EAs: the Western Australian experience", *Environmental Assessment*, 5(1) pages 17–20.
- Wathern, P (1988), "An introductory guide to EIA", in P Wathern (editor), *Environmental Impact Assessment: Theory and Practice* (Routledge, London) pages 3–30.
- Wood, C (1994), "Lessons from comparative practice", *Built Environment*, 20(4) pages 332–334.
- Wood, C (1999), "Comparative evaluation of environmental impact assessment systems", in J Petts (editor), *Handbook of Environmental Impact Assessment, Volume 2: Environmental Impact Assessment in Practice: Impacts and limitations* (Blackwell Science, Oxford) pages 10–34.
- Wood, C, and J Bailey (1994), "Predominance and independence in environmental impact assessment: the West Australian model", *Environmental Impact Assessment Review*, 14(1) pages 37–59.