ENVIRONMENTAL
DEFENDERS OFFICE (NT) INC.

Submission

in response to

NT EPA Draft Environmental Guidelines

prepared by

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Environmental Defenders Office (NT) Ltd

15 July 2013

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1. Executive Summary

General Comments

The lack of background information provided by the NT EPA prevented meaningful comment being made on these guidelines. In light of these comments, NT EPA must give concentrated attention to the design of future consultation processes.

Overall, the suite of 11 Guidelines as a package do not go far enough in developing a standard of assessment suitable for the determination of the variety of proposals. They are threadbare when reviewed against comparable documents from other jurisdictions which deal with similar subject matters.

Several of the Environment Assessment Guidelines (EAGs) are poorly structured and difficult to follow. In several it is unclear what is being regulated and what process the EAG is seeking to provide guidance on.

Typically, the EAGs cover topics which are subject to different regulatory regimes and different national and NT policies. Unfortunately, almost none of the EAGs make it clear how the various regulatory schemes applicable interact with one another.

Across the board the EAGs must more explicitly detail the exact information required from the proponent in order to effectively assess the environmental impacts of the proposed activity. As such, the language must be strengthened to clearly define what information is mandatory. The standards by which environmental impacts will be judged should also be included.

EDO NT would like to meet with the NT EPA to discuss the guidelines.

Guidelines for the Preparation of an Economic and Social Impact Assessment

Economic and social assessment must include assessment of economic and social benefits of ecological outcomes. The Guidelines should explicitly require the use of a cost-benefit analysis framework in economic assessment. The proposed guidelines for Social Impact Assessment (SIA) within this draft are too basic and must be redrafted to reflect international principles of SIA.

Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory

This EAG for Marine Dredging does not go far enough in developing a standard of assessment suitable for the determination of marine dredging proposals. Issues which need inclusion or strengthening in the EAG include: the requirement for information on primary and secondary impacts; the requirement for mandatory options analysis; the requirement for oceanic modelling; clarification of acceptable and unacceptable impacts; and clarification around the Environmental Management Plan process and the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) bilateral agreement.

Guidelines on Environmental Offsets and Associated Approval Conditions

Offsets should not be limited to mitigating impacts with regard to projects that trigger the four Acts. Impacts for all projects requiring an environmental assessment under part 8(2)(a) of the Environment Assessment Administrative Procedures should be required to offset the impacts identified through that process. NT EPA should develop a broader environmental offsets guideline or policy applicable to all projects requiring an environmental assessment, to align with the approach in comparable jurisdictions.

Guidelines for Assessment of Impacts on Terrestrial Biodiversity

This Guideline does not go far enough in developing a standard of assessment suitable for the variety of proposals that stand to impact on native vegetation, flora and fauna. It is light on detail, and does not reflect best practice nationally and internationally. The Guidelines should be re-drafted provide guidance which encourages best practice surveying and reporting on NT terrestrial fauna, flora and vegetation and their ecosystems.

Environmental Assessment Guidelines on Acid and Metalliferous Drainage

This document is incredibly imsubstantial when reviewed against comparable documents from other jurisdictions. Based upon its defined purpose, it must more explicitly detail the exact information required from the proponent in order to effectively assess the environmental impacts of the proposed activity.

The four 'trigger' Guidelines

The current approach in these Guidelines is not supported. Guidance which promotes better understanding of what is a significant effect, and what circumstances will result in such effects, is needed. The negative 'checklist' approach adopted in the four trigger EAGs should be abandoned, and instead a significant impacts checklist should be developed to help users decide whether a proposal triggers the *Environmental Assessment Act* and the need for a Notice of Intent to be prepared, based on the characteristics of the project and its environment.

Guidelines on Conceptual Site Models (CSM)

The next iteration of this Guideline must provide clarity up front as to why, when and under what circumstances the CSM is required. If a CSM is a mandatory or recommended requirement for an approval of licences or permits granted by the NT EPA, this information should not be considered alone and must be supplemented with an environmental assessment to allow the adoption of a catchment-wide management approach to be implemented by the NT EPA.

Guideline for Disposal of Waste by Incineration

In its current draft form, this guideline is of limited use. It provides no guidance as to how the various relevant legislative schemes interact, how to comply accordingly, or when an environmental assessment might be required for an incineration facility and how to prepare the relevant documentation for the process. Even more problematically, it is unclear what type(s) of waste are being regulated.

2. Introduction

The EDO NT appreciates the opportunity to comment on the recently released Environmental Guidelines.

The Environmental Guidelines are a series of documents recently released by the Northern Territory Environmental Protection Agency (NT EPA) which are intended to act as either:

- guidelines for which projects do not require notification to the NT EPA under the *Environmental Assessment Act* (EA Act). For the purpose of this submission EDO NT refers to these as 'trigger' or 'screening' guidelines. These include four guidelines that contain risk-based notification criteria for land clearing, mining proposals, petroleum activities, and 'Planning Act' development proposals; or

- guidelines for specific issues including acid and metalliferous drainage, biodiversity, social impact assessment and offsets.[1]

Process

Before commenting on each of the Guidelines, EDO NT wants to comment on the consultation process. In particular it must be highlighted that the lack of background information provided by the NT EPA prevented meaningful comment to be made on these Guidelines.

EDO NT is of the view that the overall consultation would have been greatly assisted by a document providing an explanation on the purpose of the consultation, problems with the current system, what is sought to be achieved by the new suite of Guidelines, and the intended role and legal status of the Guidelines and the context in which they are intended to operate.

The authors of this submission ended up speaking with a representative of the NT EPA over the phone and via email on a number of occasions to gain a better understanding of the issues, and found these discussions to be most helpful. Unfortunately, most members of the public and organisations have not been privy to this information when preparing their submissions.

For example, EDO NT knows from its work that the environmental assessment (EA) process in the NT is governed primarily by the EA Act and the Environment Assessment Administrative Procedures (EAAP) (a statutory instrument under the EA Act). Presumably, the 11 proposed Environment Assessment Guidelines (EAG) are intended to be unenforceable 'guiding' documents that sit under the parent legal structure. However, there is also the existence of a document called the Environmental Impact Assessment Guide (EIA Guide). The EIA Guide advises of the administrative procedures in conducting an environmental assessment, including the requirement for a Notice of Intent. It is not clear how the EAGs released for consultation sit alongside this EIA Guide. It is not clear if the documents apply independently of each other or in a complementary manner. Even more confusingly, the EA Guide advises that there are some cases where a Memorandum of Understanding (MoU) has been agreed between the relevant Minister and the NT EPA which identifies those types of developments that will require referral to the NT EPA. We are aware that several of these MoUs exist. However, there is no information on or reference to these MoUs in the current draft EAG consultation. The legal status of all of these documents, how they are intended to interact, and what the role of the newly proposed EAGs is to be, is unknown.

Because of this lack of clarity, EDO NT is very concerned that the submissions received through the consultation process will be of limited assistance and not reach the potential that they otherwise might have. Further, it is concerned that the consultation has been inaccessible to ordinary

[1] Personal correspondence: Rod Johnson, A/Manager Environmental Assessment NT EPA, email 25 June 2013.

residents. It is clear to EDO NT that only those with experience with the current EA system in the Territory would be in a position to provide useful, targeted responses through this consultation process.

EDO NT would welcome an opportunity to meet with the NT EPA to discuss this issue. Further, it would like in the future to provide comment on the next iteration of the EAGs. It is also understood that another suite of EAGs covering different topics will be released for consultation in the future. EDO NT urges the NT EPA to take into account these above comments on process when preparing that consultation process.

Content

As to content, generally speaking, EDO NT found the guidelines to be incredibly lacking in detail and devoid of content that would provide practical guidance to parties. This is particularly stark when reviewed against comparable documents from other jurisdictions which deal with similar subject matters.

It is considered that they (as a package) do not go far enough in developing a standard of assessment suitable for the determination of the variety of proposals, such as marine dredging, vegetation clearing, planning and waste disposals. Generally speaking the draft Guidelines lack detail, are not specific to the jurisdiction of NT and do not reflect best practice in EA. As they stand in draft form, they will not provide comprehensive guidance to proponents and decision-makers, and EDO NT is concerned that the achievement of the objectives of the EA Act will subsequently suffer.

It is possible that this simplification is intentional to assist proponents in their comprehension of the EA requirements, however this approach misses the opportunity for prescription on the detail required to ensure effective decision-making on environmental issues, which is the responsibility of the NT EPA.

Further, several of the EAGs are poorly structured and difficult to follow. In several, problematically, it is unclear what is being regulated and the process the EAG is seeking to provide guidance on.

Typically, the EAGs cover topics which are subject to different regulatory regimes and different national and NT policies. Unfortunately, the reader is left unclear as to what law, regulation or policy applies to what activity and how these are intended to operate and interact. Indeed, as discussed, the legal status of the EAGs themselves has not been made clear.

In this sense, as a package the draft EAGs fail in their primary objective, which is to provide guidance to proponents in navigating EA processes.

These deficiencies are addressed in greater detail in the submission below, taking one EAG at a time.

3. Guidelines for the preparation of an economic and social impact assessment

Economic and social impact assessment is an essential part of environmental impact assessment in the NT. The EA Act defines 'environment' as 'all aspects of the surroundings of man including the physical, biological, economic, cultural and social aspects'. These Guidelines provide a basis for proponents to prepare assessments of the economic and social impacts of development proposals, and accompanying economic and social impact management plan as part of Public Environmental Reports or Environmental Impact Statements developed under the EA Act.

One of the problems inherent in a jurisdiction like the NT that defines 'environment' to be all human surroundings, including social and economic matters, is that more often than not, the 'costs' of a proposed development or activity in an economic or social assessment are not fully realised.

It is appropriate that an economic and social assessment include assessment of economic and social benefits of ecological outcomes; for example, if the project or activity does not proceed, what the benefits will be socially and economically for that ecological environment to remain untouched.

3.1 Economic impact assessment

With regard to economic impact assessment, the draft EAG on Economic and Social Impact Assessment (EAG S+E) provides a good range of information but lacks in sufficient detail in key areas. It also lacks an overall framework which risks leading to the piecemeal analysis of projects.

Further, we are concerned that an economic assessment done pursuant to the draft EAG S+E as it stands would not result in the economic costs of a proposed development or activity being fully realised. There is no requirement in the draft EAG S+E that the economic benefits of ecological outcomes be factored into any economic assessment or cost-benefit analysis. This must be rectified in the next iteration of the EAG S+E.

3.1.1 The explicit use of cost-benefit analysis

The Guidelines should explicitly require the use of a cost-benefit analysis (CBA) framework in economic assessment, in line with most treasuries and departments of finance around the country and internationally. CBA is the preferred framework for assessing the effects of a project on welfare – i.e. asking if a project makes us better off, or which option for a project makes us better off. If done properly, CBA considers all private and public costs and benefits, although it often overlooks the distribution of these between stakeholders and may offer little guidance on what is 'fair' or 'right'. Additionally, there is an established body of literature on methods for CBA which should ensure some degree of consistency for comparison of projects.

CBA is not without its limitations, however, and EDO NT suggests the use of minimum standards or threshold analysis in certain cases where risks and particularly uncertainty is high. Pearce et al (2006)[2] highlights various other decision-making frameworks that can complement CBA.

We also commend to the EPA a recent report by Economists at Large, which discusses the cost-benefit analysis of coal and coal seam gas (CSG) projects. This report goes into detail on theory and has sources.[3]

[2] Pearce, D., Atkinson, G. and Mourato, S., 2006. Cost-benefit analysis and the environment: Recent developments. OECD.

3.1.2 Indirect/multiplier impacts

It is the view of the EDO NT that the draft EAG S+E overemphasise the importance of 'indirect' and flow-on benefits. It is our position that 'indirect' or what are often known as 'multiplier' impacts should not be applied at a project level because this is commonly used to inflate the total reported value of a project. The Australian Bureau of Statistics (ABS) says the following about input-output multipliers commonly used to estimate indirect benefits:

> 'While I–O multipliers may be useful as summary statistics to assist in understanding the degree to which an industry is integrated into the economy, their inherent shortcomings make them inappropriate for economic impact analysis. These shortcomings mean that I–O multipliers are likely to significantly over-state the impacts of projects or events.'[4]

3.1.3 Differentiation between risk and uncertainty

The draft EAG S+E understate the importance of risks and fail to differentiate between risk and uncertainty. Technically, risk refers to those things with a known degree of probability. For example, storms that happen once every 50 years, or equipment that fails in a certain per cent of cases. Uncertainty refers to those things for which the probability is as yet unknown. Risks should be included in discussion of costs and benefits and quantified with reference to known probabilities and likely magnitude of impacts under a range of scenarios. Though most textbooks on CBA discuss this issue, dealing with uncertainty may ultimately require different frameworks. One way of dealing with uncertainty is to require returnable bonds commensurate with the magnitude of impact possible due to uncertainty.

3.1.4 Section 5.1.1 Contribution to the NT and Australian economy

In section 5.1.1 the following elements should also be listed as background information that should be provided as part of the economic impact:

- a clear list of assumptions underpinning any figures provided;
- economic benefits of ecological outcomes, if the project or activity were to not proceed (or the costs if it does);
- expected level of foreign repatriation of profits vs domestic reinvestment;
- contribution to known cumulative impacts (positive and negative) of similar projects at a local, regional and national level;
- any costs imposed on parties external to the project;
- any benefits conferred on parties external to the project; and
- clarity regarding the distribution of costs and benefits.

With regard to the list contained in the draft EAG S+E, we are unclear what 'economic impact data' refers to, and this should be clarified.

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[3] Economists at Large, 2012, Submission on NSW Government Guideline for the use of Cost Benefit Analysis in mining and coal seam gas proposals, prepared by Economists at Large, Melbourne, Australia.

[4] Australian Bureau of Statistics, 'Input Output Multipliers' http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/5209.0.55.001Main%20Features4Final%20release%202006-07%20tables?opendocument&tabname=Summary&prodno=5209.0.55.001&issue=Final%20release%202006-07%20tables&num=&view= (accessed 2 July 2013).

3.1.5 Section 5.2 Benefits and costs of economic impacts

Section 5.2 needs to go further and require that risks and uncertainties are dealt with and the implications for the economics of the project examined. There are simple ways to do this. For example, risks can be weighted according to known probabilities and scale of likely impacts. Uncertainties can be discussed using qualitative discussion and quantification of the scale of likely impact should an 'uncertain' event occur.

3.1.6 Conclusion

We feel that CBA provides a clearer, more robust and more established way to deal with economic 'impacts' given the objective is to establish the 'contribution to the NT and Australian economy'.

For more detailed discussion of the issues and concepts associated with economic impact assessment and CBA and links to further literature, we suggest reading:

1. Economists at Large, 2012, Submission on NSW Government Guideline for the use of Cost Benefit Analysis in mining and coal seam gas proposals, prepared by Economists at Large, Melbourne, Australia.

2. Marsden Jacob Associates, 2005. Frameworks for economic impact analysis and benefit-cost analysis. Prepared for the Economic Regulation Authority, WA.

3. Pearce, D., Atkinson, G. and Mourato, S., 2006. Cost-benefit analysis and the environment: Recent developments. OECD.

3.2 Social Impact Assessment

The proposed Guidelines for Social Impact Assessment (SIA) within the draft EAG S+E are too basic. They fall short of local, international, industry and corporate standards.

3.2.1 International Principles of SIA and using these to develop Guidelines

The International Association for Impact Assessment has produced a document establishing the conceptual framework that should underpin the creation of guidelines, *Social Impact Assessment: International Principles*.[5] The IAIA principles are clear that SIA is not simply the task of predicting the impacts of proposed developments. It is the process by which the social impacts of development may be assessed and strategies to monitor and manage those effects be developed. It is a field of research and practice as well as a body of knowledge. This must be reflected in the development of guidelines for practice.

There are six core values of SIA.

1. There are fundamental human rights that are shared equally across cultures, and by males and females alike.

2. There is a right to have those fundamental human rights protected by the rule of law, with justice applied equally and fairly to all, and available to all.

3. People have a right to live and work in an environment which is conducive to good health and to a good quality of life and which enables the development of human and social potential.

[5] International Association for Impact Assessment, 'International Principles for Social Impact Assessment' (2002). Available at http://www.iaia.org/publicdocuments/special-publications/SP2.pdf (accessed at 1 July 2013).

4. Social dimensions of the environment – specifically but not exclusively peace, the quality of social relationships, freedom from fear, and belongingness – are important aspects of people's health and quality of life.

5. People have a right to be involved in the decision-making about the planned interventions that will affect their lives.

6. Local knowledge and experience are valuable and can be used to enhance planned interventions.[6]

These values are reflected in the principles of SIA, which EDO NT submits the EPA should use as the basis for the development of SIA Guidelines.

The international principles of SIA are:

1. equity considerations should be a fundamental element of impact assessment and of development planning;

2. many of the social impacts of planned interventions can be predicted;

3. planned interventions can be modified to reduce their negative social impacts and enhance their positive impacts;

4. SIA should be an integral part of the development process, involved in all stages from inception to follow-up audit;

5. there should be a focus on socially sustainable development, with SIA contributing to the determination of best development alternative(s) – SIA (and EIA) have more to offer than just being an arbiter between economic benefit and social cost;

6. in all planned interventions and their assessments, avenues should be developed to build the social and human capital of local communities and to strengthen democratic processes;

7. in all planned interventions, but especially where there are unavoidable impacts, ways to turn impacted peoples into beneficiaries should be investigated;

8. the SIA must give due consideration to the alternatives of any planned intervention, but especially in cases when there are likely to be unavoidable impacts;

9. full consideration should be given to the potential mitigation measures of social and environmental impacts, even where impacted communities may approve the planned intervention and where they may be regarded as beneficiaries;

10. local knowledge and experience and acknowledgment of different local cultural values should be incorporated in any assessment;

11. there should be no use of violence, harassment, intimidation or undue force in connection with the assessment or implementation of a planned intervention; and

12. developmental processes that infringe the human rights of any section of society should not be accepted.[7]

From these principles, guidelines can be developed. Importantly, the IAIA document states that guidelines:

> '…can be described as statements which provide advice or direction by which to plan a specific course of action. They are written as specific statements of instruction about what to do and/or how to do it. Typically they are "action-statements".'[8]

[6] International Association for Impact Assessment, 'International Principles for Social Impact Assessment' (2002), p 5.
[7] International Association for Impact Assessment, 'International Principles for Social Impact Assessment' (2002), p 6.

Guidelines should describe the ways that the principles of SIA can be put into practice. They should help the proponent develop their methodology and carry out their research and investigations, and subsequently assist the assessor or decision-maker to consider the adequacy and thoroughness of information provided.

3.2.2 Examples from other jurisdictions

United States of America

In the United States, the Interorganizational Committee on Principles and Guidelines for Social Impact Assessment has published a detailed series of guidelines in *Principles and Guidelines for Social Impact Assessment.*[9] It is useful to compare these to what is proposed in the EAG S+E.

These guidelines provide useful detail on the purpose, content and methodology of assessment. They state a goal (the principle) and describe courses of action which will achieve that goal (the guidelines). For example:

> 'Principle 1. Achieve extensive understanding of local and regional settings to be affected by the action or program or policy
> - Guideline 1a. Identify and describe interested and affected stakeholders and other parties.
> - Guideline 1b. Develop baseline information (profiles) of local and regional communities.'[10]

and

> 'Principle 5. Ensure that any environmental justice issues are fully described and analysed
> - Guideline 5a. Ensure that research methods, data, and analysis consider underrepresented and vulnerable stakeholders and populations.
> - Guideline 5b. Clearly identify who will win and who will lose, and emphasize vulnerability of underrepresented and disadvantaged populations.'[11]

This format makes the reader aware of the values integral to the practice of SIA and advises how they can be put into practice. By comparison, the guidelines for SIA contained in the draft EAG S+E are threadbare. This document neither states the goals of SIA nor the means to achieve those goals. There are lists of factors to be considered or researched, but nothing in the document suggests why or how these factors might be relevant.

The US guidelines stress that the purpose of SIA is to provide decision-makers with good quality information. Thus the document not only gives guidance on the content but method and procedure. It is clear that good science is important: there must be both a strong methodology and awareness of gaps in the data or knowledge. Moreover, it is clear that the analysis must consider the social impacts of development within the context of the totality of environmental, social and economic factors. There is no mention in the draft EAG S+E of scientific practice or methodology.

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[8] International Association for Impact Assessment, 'International Principles for Social Impact Assessment' (2002), p 5.

[9] Interorganizational Committee on Principles and Guidelines for Social Impact Assessment, 'Principles and guidelines for social impact assessment in the USA,' published in *Impact Assessment and Project Appraisal*, volume 21, number 3, September 2003, pages 231–250. Available at: http://www.nmfs.noaa.gov/sfa/reg_svcs/social%20guid&pri.pdf (assessed 1 July 2013)

[10] Interorganizational Committee on Principles and Guidelines for Social Impact Assessment, 'Principles and guidelines for social impact assessment in the USA,' published in *Impact Assessment and Project Appraisal*, volume 21, number 3, September 2003, pages 231–250, p 233.

[11] Interorganizational Committee on Principles and Guidelines for Social Impact Assessment, 'Principles and guidelines for social impact assessment in the USA,' published in *Impact Assessment and Project Appraisal*, volume 21, number 3, September 2003, pages 231–250, p 233.

Further, the US guidelines provide advice on the facilitation of community involvement and the continuous monitoring and management of the project. Additionally, the guidelines provide advice on the different functions of SIA over the life of the project. The life of a project is periodised and the responsibilities and challenges of each period are discussed. The draft EAG S+E makes mention that both of these things are relevant but does not provide detail or discussion. EDO NT submits that further work could be done to flesh out the draft EAG S+E to provide a more comprehensive and helpful set of guidelines in this regard.[12]

Elsewhere in Australia

The NT EPA should also look to other jurisdictions in Australia for examples of comprehensive SIA guidelines.

A useful example is found in the Queensland *Social Impact Assessment: Guideline to Preparing a Social Impact Management Plan*[13] (QLD Guidelines). These guidelines are a practical, plain English explanation of the principles, purposes and procedures of SIA. They make it clear that SIA is a particular field of practice with a developed methodology and set of objectives. The same cannot be said of what is proposed in the draft EAG S+E.

Though practical in focus, the QLD Guidelines are grounded in the overarching principle that development requires a 'social licence to operate' from the community. We note this is the same objective of the NT EPA in their suite of EAGs.

These guidelines represent good practice because they give sufficiently detailed advice and direction to plan an SIA; discuss the values and principles that underpin the SIA regime; and describe the roles and responsibilities of government, stakeholders and other parties. In comparison, the SIA section in the draft EAG S+E is a series of lists which bear little relation to each other. There is no indication that an SIA is the product of a holistic analysis of a multitude of overlapping factors. EDO NT submits that this must be rectified in the next iteration of the EAG S+E, and suggests that this can be done simply and quickly by basing the EAG on what is on offer from comparable jurisdictions such as Queensland.[14]

It is also worth noting that where relevant, the QLD Guidelines direct the reader to external sources of information or guidance, such as legislation or a regional regulatory body. Usefully, samples of a Social Impact Management Plan, Monitoring Plan, Stakeholder Engagement Strategy and Dispute Resolution Check List are attached as appendices to the QLD Guidelines. It is a detailed document that was designed as a comprehensive working guide to assessment of social impacts and the creation of a Social Impact Management Plan. The Northern Territory guidelines list, but do not explain or discuss, the structure and content of an Economic and Social Management Plan. Again, more detailed guidance on this should be contained in the next iteration of the EAG S+E. EPA NT should also consider the inclusion of sample documents as appendices to the EAG.

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[12] Note that the US Guidelines are more theoretical than we would recommend for the NT. This reflects the fact that the target audience of the US Guidelines are SIA practitioners rather than the wider public.

[13] Queensland Government, Department of Infrastructure and Planning, 'Social Impact Assessment: Guidelines to preparing a Social Impact Management Plan' (2010) Available at: http://www.dsdip.qld.gov.au/resources/guideline/simp-guideline.pdf (accessed 4 July 2013)

[14] Note also that the Queensland Government also published a report, *Leading Practice Strategies for Addressing the Social Impacts of Resource Developments*, which surveyed social impact assessment strategies and regulatory regimes across the world, especially in resource-rich common law jurisdictions such as Canada or South Africa.

New South Wales has developed the *Guidebook on Social Assessment,* which seeks to provide advice on SIA under the New South Wales Comprehensive Coastal Assessment scheme[15] (NSW Guidebook). Unlike the QLD Guidelines, what is on offer from NSW does apply to all types of developments, but can still be looked to for an example of a comprehensive guide to provide planners, decision-makers and others with a conceptual and applied methodological framework for undertaking SIA.

Similarly to the previous example, the NSW Guidebook begins by stating the principles and values that underpin assessment. Usefully, it provides a developed understanding of the scope of SIA which builds on the model of the Interorganizational Committee from the US. This includes a very detailed list of SIA variables drawn from scholarly research, as opposed to the short unreferenced list of factors and matters to be considered which is contained in the EAG S+E. Procedures for research, investigation and community involvement in the assessment process are suggested and discussed in the NSW Guidebook. The stages of SIA and the appropriate procedure for each are described. Four methods for the profiling of communities and prediction of harm illustrated. By contrast, the SIA process within the EAG S+E does not demonstrate any familiarity with the practical aspects of carrying out an SIA. Indeed, they fail to show any aspect of the methodology or procedure of SIA. The NSW Guidebook is a valuable example of how guidelines can combine practical or local knowledge with the general principles and methodology of SIA.

3.2.3 Conclusion

Work must be done to further develop the proposed guidelines for SIA within the draft EAG S+E to be a more comprehensive guidance document. It should be comparable to similar jurisdictions around Australia, and ideally should adopt and refer proponents to the International Association for Impact Assessment's *Social Impact Assessment: International Principles*.

At a minimum, the EAG S+E should do the following:

- connect principle to practice. SIA is a field of practice with its own values and principles: these should be reflected in the advice in the Guidelines;
- provide sufficiently detailed information, direction and advice that they can be used to plan a course of action. This includes advice on the scientific collection and analysis of data;
- be context specific. They should be tailored to the local social, economic, environmental, regulatory and political situation; and
- identify persons, offices and institutions likely to be involved in an SIA and their respective responsibilities.

Currently the draft EAG S+E falls very short of local, international, industry and corporate standards and we submit will provide limited guidance to proponents and decision-makers in the process under the EA Act. Further, they will not give the community confidence that the issue of social impacts of development is being taking seriously nor that SIA is being done comprehensively and robustly.

[15] NSW Government, 'Guidebook on Social Impact Assessment' (2005) Available at: www.ebc.net.au/CCA%20SIA%20Guidebook.pdf (accessed 4 July 2013).

4. Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory

The NT EPA Draft Guidelines for the Environmental Assessment of Marine Dredging in the NT (EAG Dredging) has been written to inform the preparation of EA documentation of dredging activities, as opposed to identifying the triggers which would mandate and determine the assessment type (being either an Environmental Impact Statement (EIS) or Public Environment Report (PER) depending upon the sensitivity of the local environment, scale of the proposal and its potential impact).[16] In reflecting this, the discussions in this document focus on the information specified as required as part of the EA and less on the legal triggers and obligations driving the EA process.

The EAG Dredging is not intended to replace project-specific EIS or PER Guidelines, but to 'help to inform proponents about how to deal with particular matters'[17]. This information is important given the complexities and potential environmental impacts of dredging operations and a public perception of dredging which is typically negative. The EAG Dredging presents an opportunity for the NT EPA to communicate the standard of information expected to be included in an EA to 'ensure proponents take all reasonable and practicable measures to protect the environment from marine dredging'.[18] These Guidelines may themselves be referenced in mandatory project-specific guidelines, in which case the Guidelines become obligatory for that EIS or PER.

There is reference throughout the Guidelines of the submission requirements of an Environmental Management Plan (EMP) and the Guidelines state that 'it is expected that proponents provide the EMP as part of the documentation submitted for assessment'.[19] Whilst the format of this information is left to the proponent to determine (i.e. would the EMP be submitted as a separate document or included within the EA? Is an EMP required for every proposal?), the purpose of the EMP is clarified in Section 5.7.4. As such, this document provides two purposes; to provide guidance on the content of both the EA and EMP documents required for a dredging proposal.

4.1 Legislative and administrative requirements

As discussed in the EAG Dredging, proposed dredging activities, including the disposal of waste material, may have legal obligations under both NT and Commonwealth law under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) in the case where the activity may have a significant impact on Matters of National Environmental Significance (MNES).[20] Potentially relevant MNES for marine dredging and disposal could include nationally listed threatened species and ecological communities, Ramsar wetlands of international importance, internationally listed migratory species, and Commonwealth marine areas.

Detail within the Act[21] on what would amount to 'significant impact' is lacking, but supplemented through the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines – Matters of National Environmental Significance*, which provides specific criteria for each MNES on what may trigger the EPBC Act. For example, with regard to impacts in the context of the Commonwealth marine

[16] Northern Territory Environmental Protection Agency. *Environmental Assessments*. Retrieved June 30 2013 from: http://www.ntepa.nt.gov.au/environmental-assessments.
[17] Personal correspondence: Rod Johnson (A/Manager Environmental Assessment NT EPA) email 25 June 2013.
[18] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013 p 4.
[19] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 19.
[20] Under the *Environmental Protection and Biodiversity Conservation Act 1999.*
[21] Section 527E(1) of the Environment Protection and Biodiversity Conservation Act 1999 provides that '*an event or circumstance is an impact of an action if: (a) it is a direct consequence of the action; or (b) if it is an indirect consequence of the action, the action is a substantial cause of that event or circumstance*'.

environment, the guidelines provide that an action is likely to have a 'significant impact' if it were to (amongst other things):

- 'modify, destroy, fragment, isolate or disturb an important or substantial area of habitat such that an adverse impact on marine ecosystem functioning or integrity in a Commonwealth marine area results;

- have a substantial adverse effect on a population of a marine species or cetacean including its life cycle (for example, breeding, feeding, migration behaviour, life expectancy) and spatial distribution; and

- result in a substantial change in air quality or water quality (including temperature) which may adversely impact on biodiversity, ecological integrity; social amenity or human health'.[22]

As such, any potential dredging or marine (or land) disposal of waste which may trigger the above impacts, either directly or indirectly, would be required to be referred for Commonwealth assessment.

At this point it is important to acknowledge the highly mobile nature of both pollution in the aquatic medium, carried by wave and water current action, and of some marine species. This geographical spread of pollutants, or the movement of sensitive species into the pollution area, may subsequently result in the activity contravening environmental protection measures captured in either NT or Commonwealth legislation beyond the extent originally anticipated. Therefore, whilst the EAG Dredging provides a suitable starting point for identifying applicable legislation, a review of potentially relevant legislation should be undertaken by the proponent once the spatial range of potential impacts has been determined, and this should be explained in the EAG Dredging.

An understanding of MNES and the condition of 'significant impact' is relevant in the context of the EAG Dredging as the NT EPA environmental assessment process is subject to an approved bilateral agreement[23] with the Australian Government Department of Sustainability, Environment, Water Population and Community. The bilateral approval process allows the Commonwealth to 'rely on specified environmental impact assessment processes of the Northern Territory in assessing actions under the EPBC Act'.[24] As such, the objectives of the EPBC Act should be followed by the NT EPA, including ecologically sustainable development[25] incorporating the precautionary principle[26]. Given then that the EAG Dredging represent not only the assessment process for the NT, but also in certain circumstances the Commonwealth assessment process under the EPBC Act, the Guidelines should explicitly describe their role in the Commonwealth assessment processes (currently the document makes no mention of the bilateral agreement) and wording should be included regarding the concept and implementation of ecologically sustainable development.

[22] Australian Government Department of Environment, Water, Heritage and the Arts. '*Matters of National Environmental Significance Significant impact guidelines 1.1*' P 25. Retrieved June 28 2013 from: http://www.environment.gov.au/epbc/publications/pubs/nes-guidelines.pdf.
[23] The *Environment Protection and Biodiversity Conservation Act 1999*, clause 45.
[24] Australian Government Department of Sustainability, Environment, Water, Population and Communities. '*Agreement between the Commonwealth of Australia and the Northern Territory*'. Retrieved June 28 2013 from: http://www.environment.gov.au/epbc/assessments/bilateral/nt.html.
[25] The *Environment Protection and Biodiversity Conservation Act 1999*, clause 3(1).
[26] The *Environment Protection and Biodiversity Conservation Act 1999*, clause 3A(b).

4.2 Environmental issues

4.2.1 Potential environmental impacts

The removal and disposal of sediments inevitably has some environmental impact, the type and scale of which will be required to be identified through targeted research and monitoring for each project proposed. Given the nature of the aquatic environment, with high interconnectedness and mobility of pollutants in the aquatic medium, the impacts of dredging need to be considered beyond the immediate effects; potential secondary impacts must also be examined.

The EAG Dredging detail a list of potential environmental impacts which may occur as a result of dredging activities and inform the reader that 'the NT EPA expects proponents to give an appropriate level of attention to each of the significant environmental issues associated with their particular dredging proposals'.[27] However, having this list appears to grossly oversimplify the issues and potential indirect impacts which may have cumulative effects on the ecosystem.

Dredging has many deleterious environmental effects[28] the breadth of which it is not necessary to detail in this context, however this means it is fundamentally important that the EAG Dredging emphasise that the environmental assessment is thorough and complete, focus on direct and indirect impacts and the interactions between the two, include an assessment of cumulative effects, and identify any unknowns and provide a methodology for managing these throughout the operation (i.e. monitoring strategies). With its current content, this level of direction fails to be achieved by the EAG Dredging.

An example of where a discussion of environmental impacts is effectively undertaken is the EPA Victoria's 'Best Practice Environmental Management Guidelines for Dredging' (2001). This document (at 110 pages long) provides highly detailed explanation of the impacts which may result from dredging and disposal operations, and how these could be managed. While this level of detail may not be required in the EAG Dredging, it effectively demonstrates the broad range of issues which may occur, and the interconnectedness of these issues in the aquatic landscape.

As mentioned, a brief list of potential environmental impacts has been included in the EAG Dredging. EDO NT considers it unnecessary to list the potential impacts of marine dredging, and by partially doing so, it may actually result in a narrower focus being taken by the proponent in the EA, by only focusing on the list provided instead of taking a broad, holistic approach to potential environmental impacts across all fields.

As a more productive alternative, the document should take the approach of detailing the themes, rather than specific items, of environmental impacts which should be examined. This would include, but not limit the assessment to, all those impacts already listed in the EAG Dredging. An example of themes to be included is:

- air (odour as well as any potential for airborne contamination);
- water (marine, freshwater, groundwater);

[27] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 11.

[28] Bożena Graca, Katarzyna Łukawska-Matuszewska, Dorota Burska, Leszek Łęczyński and Jerzy Bolałek (2012). *Geochemical Changes in Aquatic Environment Caused by Deep Dredging - A Case Study: The Puck Bay (Baltic Sea)*, Oceanography, Prof. Marco Marcelli (Ed.), p. 259. Retrieved 27 June 2013 from: http://cdn.intechopen.com/pdfs/33950/InTech-Geochemical_changes_in_aquatic_environment_caused_by_deep_dredging_a_case_study_the_puck_bay_baltic_sea_.pdf.

- Aboriginal and cultural heritage (to culture, land and fisheries);
- noise and light impacts (to both the human population and marine species);
- ecosystems impacts (including seasonal vulnerabilities for different ecosystem components, identification of sensitive flora and fauna, bioaccumulation potentials, food chain interactions and potential for introducing invasive species);
- land impacts of waste disposal sites (such as land contamination, impacts on current and potential future land use, rehabilitation requirements);
- waste strategies (of spoil, but also any spoil not suitable for direct land or sea disposal, such as contaminated or weed bearing spoil, also potential spills from plant);
- greenhouse gas emissions; oceanography (incorporating oceanic currents, local wave patterns, erosion and deposition patterns); and
- community impacts.

In a continuation from merely listing the themes to be assessed, the EAG Dredging should provide scope of these environmental assessments, indicating that they should include both the dredging and the waste disposal sites, across all phases of the operation, from site preparation to rehabilitation. The EAG Dredging should explicitly require that each of the identified impacts be accompanied by proposed mitigation strategies. These should not rely solely on lag monitoring, where an unacceptable impact is only identified after it occurs, but should be embedded into the design of the project to prevent or minimise the impact from occurring in the first place. The EA should then include a reassessment of those identified major impacts after the management strategies have been implemented, and any remaining major or moderate impacts need to be justifiable in terms of the need for the project to be undertaken.

This format follows closely to the commonly accepted risk assessment format and by executing an environment assessment in this manner the NT EPA can most effectively assess the proposal based upon expected impact given that the proposed mitigation and management measures are effectively implemented.

4.2.2 Sediment mobilisation

Due to the high interconnection in the marine environment, both in terms of the medium (water) and the fauna (e.g. migratory species and broad-ranged fisheries), the wording in the EAG Dredging should be strengthened so that the requirement to have a detailed model of the oceanic current in the proposed dredging and dumping areas to identify the extent of potential impacts is mandatory for inclusion in all EAs. This will rely on a detailed material assessment of the proposed sediment to be disturbed, given that fine particulate material can remain in suspension for a number of weeks in the water column[29] and therefore may impact across a large area outside the immediate boundaries of the initial impact zone. This may subsequently impact Commonwealth waters, fisheries, threatened species or other MNESs not previously considered.

In addition to this modelling, information must be obtained not only on the fauna located directly in or near to the proposed dumping area, but also those species that may temporarily enter the disturbance areas, or area impacted by extended suspension of fine particles, and the potential

[29] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 16.

effect on those species and, in the case of key species, the flow-on effect this may have on other ecosystems.

In light of the potential dispersal of contamination and pollution, the EAG Dredging should strongly reiterate that 'unconfined oceanic disposal should only be considered as a last resort'[30] and require that an options analysis be undertaken and provided to the department as part of the EA, demonstrating that all other potential disposal options were suitably considered and detailing the reasons these options were dismissed.

The EAG Dredging describe that 'the amount of "spill" allowed at the dredge site should be informed by a cost benefit assessment of improved solids inventory in the barge per vessel journey versus the increased impact of the "spill" at the location'[31]. The concept of a CBA of the 'spill' places the determination of acceptability of spill activities into a financial analysis rather than an environmental impact analysis. The assessment of the permissibility of 'spill', including volume of 'spilled' material, should be determined solely on the potential environmental impacts of the spill and the level of acceptability of those impacts by the NT EPA. In cases where the dredged material has high level of contamination, dredging methodology which allows for 'spill' to occur should be justifiable or not permitted.

4.3 Assessing dredge spoil disposal

As mentioned above, in acknowledging the increased environmental impacts which would result from marine disposal of dredged material, an options analysis should be mandated by the Guidelines to ensure the potential for reuse or land disposal has been suitably considered by the proponent.

While the implementation of the Sampling Analysis Plan is considered good practice by the EDO NT, ideally it is recommended this section be strengthened by wording that imposes the minimum standard of sediment testing of the dredging footprint to ensure no potential contamination is overlooked. Furthermore, there should be some guide as to when land disposal would be considered mandatory based on contaminant levels or chemical characterisation of the dredge spoil (i.e. upper limits of contaminants) given the difficulties in containing and managing marine disposal.

4.4 Other environmental issues

The EAG Dredging place emphasis on the importance of managing species introduction[32] due to the potential impact of invasive species. The EAG Dredging should mandate the inclusion of equipment hygiene protocols to describe the process of ensuring the equipment used as part of the project does not result in the introduction of pest species into the project or surrounding areas. This protocol may include physical controls including those suggested in the document, and administrative controls such as research of ecology of the previous location of the equipment and sensitivities of the impact area to these species, or a combination of both. The hygiene protocol should also detail the equipment owner/operator (in order for the NT EPA to track any contractors with a history of non-compliance) and reference any NT or Commonwealth quarantine approvals which may be required.

[30] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 7.
[31] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 11.
[32] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, Section 6.3.

Some other components lacking from the EAG Dredging include the processes for rehabilitation of land after land dumping, including long-term monitoring, rehabilitation goals and corrective measures/rework in the case of rehabilitation failure. Post-disturbance land management often has long-term costs associated with rehabilitation and revegetation (including re-work activities in the case of vegetation failure) that exceed the predicted cost. This needs to be addressed in the concept phase to ensure sufficient funding is available for adequate land rehabilitation, to prevent the NT becoming responsible for significantly impacted dumping sites with ongoing environmental legacies.

The EAG Dredging would benefit from some clarification regarding the submission of an EMP. For example, the EAG Dredging indicate that the EMP is required for a Notice of Intent (NOI)[33], but also is to be included with the 'documents submitted for assessment'[34], assumedly the EA. As the NOI and EA are two separate steps of the approval process, this information leads to some confusion. Additionally, an early description on the content of the EMP reveals that it needs to address environmental duties under section 12 of the Waste Management and Pollution Control Act[35], however this conflicts with the much more detailed EMP as described later in the EAG Dredging in Section 5.7.4 and also in Appendix 5. If two EMPs are required, a brief document which addresses legislative requirements for submission with the NOI and a more detailed document outlining environmental monitoring and management for submission with the EA, this should be clearly explained within the EAG Dredging.

It is not made clear in the EAG Dredging that the proposed equipment and dredging methodology needs to be precisely described to provide confidence to the NT EPA that the best practice methodology is being implemented. The EA should explicitly describe the project methodology and should include a detailed explanation of why this methodology is the most suitable for the environment and specific characteristics of that project. This information is important to ensure the proponent is incorporating environmental management considerations into the fundamental planning decisions of the project.

4.5 Conclusion

The EAG Dredging document has been written to outline the 'issues for proponents to consider in submitting their proposals for environmental assessment, for the acquisition of the necessary statutory instruments and the development of appropriate Environment Management Plans'[36]. The EAG Dredging addresses a number of environmental impact issues and do provide direction into what considerations need to included when developing an EA and EMP. EDO NT considers that the EAG Dredging do not go far enough in developing a standard of assessment suitable for the determination of marine dredging proposals. Issues which need additional information or strengthening within the EAG Dredging are summarised below.

- The range of environmental assessment themes to be considered needs to be broadened to include additional primary and secondary impacts, exacerbated in the case of dredging by the highly mobile nature of the aquatic environment.

[33] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 5 & 35.
[34] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 19.
[35] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 5.
[36] Northern Territory Environmental Protection Agency. 'Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory', Version 1.2, April 2013, p 5.

- The EAG Dredging must clearly state that additional information needs to be provided to justify the dredging equipment and methodology proposed and the disposal option for the dredged material. This should require a mandatory options analysis with explanations on why each option was rejected or accepted. The EA should clearly describe any remaining impacts after all management strategies have been implemented, so that the decision-maker has a clear understanding of the actual environmental impacts from the proposal which cannot be eliminated.

- Oceanic modelling of the pollution spread from the dredging and dumping needs to be listed as a mandatory inclusion for the EA. This information can then be used to assess the project throughout its operation. Should this model be exceeded (as indicated by monitoring throughout operation) activities should be stopped until additional mitigations can be implemented or until favourable conditions return. This oceanic modelling should be undertaken prior to examination of existing environments, to ensure all potentially impacted areas are included in the assessments.

- Some clarification of acceptable and unacceptable impacts should be provided to help guide proponents in their project design, such as under what sediment contamination levels ocean dumping is considered unacceptable, and the use of methodology allowing 'spill' to occur.

- Clarification needs to be provided around the processes of the EMP and the bilateral agreement with the Commonwealth. The EMP should be written to clearly address the management of all proposed impacts identified through the EA in addition to any unknowns and how these will be monitored through the dredging operation.

This document presents an opportunity for the NT EPA to standardise a high level of environmental assessment and demand justification of potential environmental impacts in very early stages of project development for marine dredging operations. Should the above matters be addressed the EAG Dredging could set a new benchmark for environmental impact assessment and provide confidence to a cautious public about the standard of consideration and management of potentially high-impact operations.

5. Guidelines on Environmental Offsets and Associated Approval Conditions

EDO NT is disappointed to note that the EAG on Environmental Offset and Associated Approval Conditions (EAG Offsets) only covers offsets for projects under four pieces of legislation, and does not propose any additional offset requirements.

The EAG Offsets covers offsets under:

- the Commonwealth's Environment Protection and Biodiversity Conservation Act (EPBC Act);
- the Mining Management Act (MMA), section 37(5)(d);
- the Aboriginal Land Rights (Northern Territory) Act (ALRA); and
- the Native Title Act (NTA).

It is the position of EDO NT that for all projects requiring an environment assessment (either a public environmental report or an environmental impact statement) under part 8(2)(a) of the Environment Assessment Procedures under the Environment Assessment Act, offsets should be required for all of the impacts identified through the EA process. Offsets should not be limited to mitigating impacts with regard to projects that trigger the four above Acts.

EDO NT urges the NT EPA to develop a broader 'Environmental Offsets Policy' applicable to all projects requiring an EA under the EA Act. We submit this is absolutely necessary if the 'social licence' objective stated in the EAG Offsets (and indeed many of the other draft EAGs released for consultation) is to be achieved. If a company or organisation endeavours to 'operate in a manner that aligns with community expectations' then they must practise good corporate citizenship by acknowledging and taking responsibility for the environmentally damaging impacts that their project or activity might cause. A necessary limb of this is to offset those impacts, if avoidance and minimisation is not possible. The piecemeal approach proposed in the draft EAG Offsets shows disregard to the concepts of social licence that the EAG states that it seeks to achieve.

NT EPA should look to other Australian jurisdictions for illustrations of such environmental offset policies. For example, the Western Australian EPA requires offsets for all projects under their *Environmental Protection Act 1986* (WA EP Act),[37] and has a EAG for environmental offsets.

5.1 Overarching objective for and definition of environmental offsets

The Environmental Offsets policy should contain an overarching objective relating to environmental outcomes and to offsets. The following is suggested wording:

> 'This policy acknowledges the overall objective to protect and conserve environmental and biodiversity values for present and future generations, and seeks to counterbalance any significant residual environmental impact and risks through the application of offsets.'[38]

An environmental offset should be defined as:

[37] *Environmental Protection Act 1986* (WA) Section 16(k).
[38] This definition is based on that of Western Australian EPA's contained in their Draft Environmental Assessment Guideline for Environmental offsets (October 2012).

'actions that improve or protect the environmental value of an asset elsewhere to compensate for the loss of environmental values as a result of implementing the proposal.'[39]

5.2 Avoidance and mitigation a priority

The NT EPA should make it clear that for projects that trigger the EA Act, it expects proponents to take all reasonable steps to avoid and minimise impacts to the environment (broadly defined), prior to resorting to offsetting an impact. These steps and efforts should be required to be detailed by the proponent in the EA documentation. Offsetting activities should only be taken after all reasonable mitigation efforts to avoid and minimise impacts have been applied and a significant environmental impact or risk remains.

Overall, the NT EPA should be looking for proponents to:

1. first, determine if there is a significant residual impact or risk;
2. if so, propose an offset that is proportionate and relevant to the impacts; and
3. ensure the proposed offset is consistent with the guideline.

Environmental offsets are a last resort, used after all steps have been taken to avoid, minimise and mitigate environmental impacts.

5.3 Offset principles

The Environmental Offsets Policy should contain a series of offset principles. NT EPA should consider developing the following items into principles to be contained in the Environmental Offsets Policy.

1. Offsets are only considered after mitigation of impacts (as detailed above).
2. Offsets should be relevant and proportionate (must relate to the affected environment and be relevant to the environmental values impacted, for example, offsets should be 'like-for-like').
3. Environmental offsets are not appropriate for all proposals (NT EPA should be clear that in some cases, a proposal may be determined to be environmentally unacceptable, regardless of any offset proposed).
4. Offsets must deliver long-term benefits for the environment (for example, offsets must ensure a long-lasting environmental benefit and be capable of being maintained into the future, even after the proposal has been completed).
5. The context of the offset must be considered (including cumulative and consequential impacts).

5.4 Developing an offset

The Environmental Offsets Policy should also contain guidance as to the development of offsets, to guide proponents in identifying when environmental offsets may be required and how to design them. In particular, the document should detail who should be consulted in the process of developing offsets.

[39] This definition is adapted from that of Western Australian EPA's contained in their Draft Environmental Assessment Guideline for Environmental offsets (October 2012).

5.5 Implementation of Offsets

The Environmental Offsets Policy should also contain information about the implementation of offsets. In particular, how the offset might be achieved, for example through direct action by the proponent or funding or other contributions. It should also contain information on the timing of the offset, such as when the offset will commence and the duration of the offset. Of high importance, the Environmental Offsets Policy should also contain a requirement regarding the public availability of information on offsets. EDO NT submits that the knowledge obtained from offsets must be shared and readily available in the public domain to ensure that the ultimate beneficiary is the environment. All offsets, data and offset conditions should be listed on the NT EPA's website.[40]

5.6 Conclusion

Overall, the EAG Offsets is a strange document. It is only six pages long, extremely light on detail, and provides very little meaningful guidance. As in other of the drafts EAGs, it goes to quite some length to list all of the legislation that could possibly apply to this area, and excerpts the list of EPBC matters of national environmental significance. EDO NT is concerned that this draft EAG will provide very little practical guidance to proponents in its current form. The wording in the draft EAG Offsets must be strengthened and it must contain more specific requirements for the development of offset documentation.

[40] Note that the EPA in Western Australia is developing an online register, to improve transparency around offsets.

6. Guidelines for Assessment of Impacts on Terrestrial Biodiversity

As opposed to the trigger draft EAGs, the EAG for Impacts on Terrestrial Biology (EAG TB) is a document that guides the preparation of Environmental Assessment documentation, rather than a document that offers guidance as to whether the need for an EA is 'triggered' or not in the first place.

Generally speaking it is considered that the EAG TB does not go far enough in developing a standard of assessment suitable for the variety of proposals that stand to impact on native vegetation, flora and fauna. The EAG TB lacks detail, is not comprehensive, and does not reflect best practice. The wording in the draft EAG must be strengthened and must contain more specific requirements for the development of assessment documentation. In particular we refer the NT EPA to the International Association for Impact Assessment's document on *Biodiversity in Impact Assessment*[41], which sets up 'Guiding principles' that can be applied to all stages and types of EA and explains how a desired outcome can be achieved for biodiversity. These are:

- aim for conservation and 'no net loss' of biodiversity;
- take an ecosystem approach;
- seek sustainable use of biodiversity resources;
- ensure equitable sharing;
- apply the precautionary principle; and
- take a participatory approach.[42]

EDO NT submits that the EAG TB should be re-drafted with the above guiding principles in mind.

Further, it must be noted that that the EAG TB (as with others released for consultation) represent not only the assessment process for the NT, but also in certain circumstances the Commonwealth assessment process under the EPBC Act. Accordingly, the Guidelines should explicitly describe their role in the Commonwealth assessment processes pursuant to the bilateral agreement and wording should be included regarding the concept and implementation of principles such as ecologically sustainable development.

6.1 Vegetation assessment

6.1.1 The law

The two primary pieces of NT legislation that control the clearing of native vegetation are the Pastoral Land Act and the Planning Act. The Pastoral Land Act controls clearing on pastoral leases. It provides a form of tenure of Crown land that facilitates sustainable use of land for pastoral purposes and the economic viability of the pastoral industry. It also provides for the prevention or minimisation of degradation or other damage to the land and its indigenous plant and animal life.

[41] July 2005, available here: https://www.iaia.org/publicdocuments/special-publications/SP3.pdf (accessed 11 July 2013)
[42] International Association for Impact Assessment (July 2005), *Biodiversity in Impact Assessment,* available here: https://www.iaia.org/publicdocuments/special-publications/SP3.pdf (accessed 11 July 2013), pp 2–3.

The Planning Act controls clearing on all other land subject to the operation of other pieces of legislation listed below. It controls land clearing through the mechanism of assessing applications for development (pursuant to part 5 of the Act) and by reference to the requirements of the NT Planning Scheme, specifically clauses 10.2 and 10.3. These clauses detail when a consent for native vegetation removal must be obtained.

The objects of the Planning Act and the statements of principle in the NT Planning Scheme indicate a governmental commitment to appropriate outcomes for land use planning and development control.

6.1.2 Information Requirements

EDO NT doesn't propose to comment on this in detail as issues such as the scientific methods of surveying and collecting data are not legal in their nature and thus not within our area of expertise.

We will say that the information requirement section of the EAG TB appears insubstantial, especially compared to other jurisdictions in Australia. For example, the *Western Australian Guidance for the Assessment of Environmental Factors - Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*[43] is over 50 pages long and is significantly more detailed and comprehensive than that which is proposed in the draft EAG TB.

The EAG TB should seek to provide guidance to encourage best practice surveying and reporting on NT terrestrial flora and vegetation and their ecosystems.

6.1.3 Assessment of conservation significance and assessment of impacts on vegetation

The wording in the draft EAG TB must be strengthened and must contain specific requirements for the development of assessment documentation. At present the wording 'an assessment … can be made with reference to' on page 6 is not prescriptive enough, and does not set a minimum standard as to content.

Further, at a minimum, an assessment of conservation significance and impacts on vegetation should contain adequate information for a decision to be made hypothetically under the NT Planning Scheme Clause 10.3. Accordingly, the EAG TB should require that an assessment contains information that allows for consideration of the following:

1. the Land Clearing Guidelines (as amended from time to time) by the Department of Natural Resources, Environment and the Arts;
2. the presence of threatened wildlife as declared under the Territory Parks and Wildlife Conservation Act;
3. the presence of sensitive or significant vegetation communities such as rainforest, vine thicket, closed forest or riparian vegetation;
4. the presence of essential habitats, within the meaning of the Territory Parks and Wildlife Conservation Act;
5. the impact of the clearing on regional biodiversity;
6. whether the clearing is necessary for the intended use;

[43] *Guidance for the Assessment of Environmental Factors Western Australia (in accordance with the Environmental Protection Act 1986*), *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (No. 51, June 2004).

7. whether there is sufficient water for the intended use;
8. whether the soils are suitable for the intended use;
9. whether the slope is suitable for the intended use;
10. the presence of permanent and seasonal water features such as billabongs and swamps;
11. the retention of native vegetation adjacent to or forming part of waterways, wetlands and rainforests;
12. the retention of native vegetation buffers along boundaries;
13. the retention of native vegetation corridors between remnant native vegetation areas;
14. the presence of declared heritage places or archaeological sites within the meaning of the Heritage Conservation Act; and
15. the presence of any sacred sites within the meaning of the NT Aboriginal Sacred Sites Act.[44]

Also, with regard to conservation significance, in addition to what is already contained in the draft EAG TB, the assessment must contain information in regard to the native vegetation as follows:

- the conservation status of the native vegetation under the Environment Protection and Biodiversity Act;
- the quality and condition of the vegetation;
- whether the vegetation comprises a high level of diversity of plant species;
- whether the vegetation is significant as a remnant of vegetation in an area that has been cleared extensively; and
- whether the vegetation contributes significantly to the amenity of the area in which it is growing or situated.[45]

In particular, with regard to impacts on vegetation, in addition to what is already contained in the draft EAG TB, the assessment must also contain information on:

- whether the proposed development can be located and designed to avoid the removal of native vegetation;
- whether the proposed development is located and designed to minimise the removal of native vegetation;
- the preservation of and impact on the natural environment or landscape values;
- the cumulative impact of native vegetation removal on biodiversity conservation and management;
- the role of native vegetation in protecting water quality and waterway and riparian ecosystems, particularly within 30 metres of a wetland or waterway;
- the role of native vegetation in preventing land degradation, including soil erosion, salinisation, acidity, instability and water logging, particularly:
    - where ground slopes are more than 20 per cent;

[44] These criteria mimic that in NT Planning Scheme Clause 10.3.

[45] These are criteria from South Australia. All decisions to approve or reject applications are made in line with the principles of native vegetation, set out in the *Native Vegetation Act 1991* (SA). The NVC cannot grant consent for clearance of native vegetation that contravenes these principles.

- on land which is subject to soil erosion or slippage; or
- in harsh environments, such as coastal areas;

- the role of native vegetation in preventing adverse effects on groundwater recharge, particularly on land where groundwater recharge to saline water tables occurs or which is in proximity to a discharge area;
- whether the proposed works will adversely affect the land protection role of the native vegetation;
- The strategic location of the native vegetation in the local landscape (the importance of vegetation for landscape function beyond the immediate site should be considered);
- whether the native vegetation is a threatened community, or provides habitat for threatened fauna or flora; and
- whether the removal of the native vegetation could jeopardise the integrity or long term preservation of an identified site of scientific, nature conservation or cultural significance.[46]

6.2 Flora and fauna assessment

6.2.1 The law

The *Territory Parks and Wildlife Conservation Act* (TPWCA) is the principal piece of legislation governing the conservation of threatened species in the NT, which includes flora and fauna.

In the TPWCA, 'wildlife' is defined to mean 'animals and plants that are indigenous to Australia, are indigenous to the Australian coastal sea or the sea-bed and subsoil beneath that sea, migratory animals that periodically or occasionally visit Australia or the Australian coastal sea, animals and plants of a kind introduced into Australia, directly or indirectly, by Aboriginals before the year 1788; and such other animals and plants as are prescribed.[47]

Under the TPWCA, the Minister must identify the conservation status of each of the species of wildlife in the Territory and apply a classification prescribed (under section 28) to each species accordingly.[48] The Minister is required to make the reasons for classification available to the public and seek and consider public comments on the classification of wildlife. The Administrator makes the classification in writing (after being satisfied that the public process has been followed).[49]

Classification classes under the TPWCA are taken from the International Union for Conservation of Nature Red List.[50] In summary, these categories are: 'Extinct in the wild', 'Critically Endangered', 'Endangered', 'Vulnerable', 'Near Threatened' and 'Data deficient'.[51] Collectively, all of the species in these categories are termed 'threatened' under the Act.[52]

There are approximately 250 species currently classified.[53] Of these, 51 are flora species and approximately 200 are fauna species.[54]

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[46] This list has been adapted from the *Native Vegetation Guide for assessment of referred planning permit applications* (Victoria, April 2007).
[47] *Territory Parks and Wildlife Conservation Act* (NT), s9.
[48] *Territory Parks and Wildlife Conservation Act* (NT), S29.
[49] *Territory Parks and Wildlife Conservation Act* (NT), S29.
[50] *Territory Parks and Wildlife Conservation Regulations* (NT), R2.
[51] IUCN Red List, *The IUCN Red List of Threatened Species* accessed on 13 December 2012 at: http://www.iucnredlist.org/about.
[52] *Territory Parks and Wildlife Conservation Act* (NT), S30.
[53] http://lrm.nt.gov.au/plants-and-animals/home/specieslist#.UcKFS5xqD3U.

In addition, all wildlife that is in a park, reserve, sanctuary, wilderness zone or area of essential habitat, or is a vertebrate that is indigenous to Australia, is 'protected' wildlife under the TPWCA.

So it is worth noting that invertebrates that are outside of a park, reserve sanctuary wilderness zone or an essential habitat area do not receive protection unless they are classified specifically under the Act.

All species of 'threatened wildlife' are also 'protected wildlife'.[55]

Therefore outside a park, reserve sanctuary wilderness zone or Essential Habitat area plants do not receive protection unless they are one of the 250 odd classified as threatened.

The TPWCA sets out principles of management.[56] The principles of management are:

> 31 Principles of management
>
> 1. The management of wildlife under this Act is to be carried out in a manner that promotes:
>   a. the survival of wildlife in its natural habitat;
>   b. the conservation of biological diversity within the Territory;
>   c. the management of identified areas of habitat, vegetation, ecosystem or landscape to ensure the survival of populations of wildlife within those areas;
>   d. the control or prohibition of:
>   i. the introduction or release of prohibited entrants into the Territory; and
>   ii. any other act, omission or thing that adversely affects, or will or is likely to adversely affect, the capacity of wildlife to sustain its natural processes; and
>   e. the sustainable use of wildlife and its habitat.
>
> 2. Species of wildlife are to be managed in a manner that:
>   a. accords with their classification under section 29; and
>   b. in the case of threatened wildlife – maintains or increases their population and the extent of their distribution within the Territory at or to a sustainable level (which may include breeding in captivity).

Processes for achieving these management objectives include 'wildlife management programs',[57] 'co-operative schemes' in accordance with management plans'[58] or by declaring an area of 'essential habitat'.[59]

Currently, approximately, 13 species management programs exist.[60]

To date, no essential habitat has been identified under the TPWCA.[61]

Ecological communities are not currently contemplated by the Act to address the principles of biodiversity conservation.[62]

Permits can be granted by the Director to take or interfere with wildlife.[63] The taking of threatened wildlife also requires the written permission from the Minister.[64] The TPWCA sets out relevant

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[54] http://lrm.nt.gov.au/plants-and-animals/home/specieslist#.UcKFS5xqD3U.
[55] *Territory Parks and Wildlife Conservation Regulations*, R3.
[56] *Territory Parks and Wildlife Conservation Act* (NT), S31.
[57] *Territory Parks and Wildlife Conservation Act* (NT) s32.
[58] *Territory Parks and Wildlife Conservation Act* (NT) s35.
[59] *Territory Parks and Wildlife Conservation Act* (NT) s37.
[60] http://www.lrm.nt.gov.au/biodiversity-conservation/programs/approved.
[61] Source within Northern Territory Department of Land Resource Management.
[62] Natural Resource Management Ministerial Council, 'Australia's Biodiversity Conservation Strategy 2010-2030' (Department of Sustainability, Environment, Water, Population and Communities (SEWPaC), SEWPaC library, 2010).
[63] *Territory Parks and Wildlife Conservation Act* (NT) S55.

considerations for the Director to take into account before making the decision to grant or refuse the permit application.[65]

6.2.2 Information requirements

EDO NT doesn't propose to comment on this in detail as it is outside our area of expertise. We would encourage the NT EPA to look to the *Guidance for the Assessment of Environmental Factors - Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*,[66] and the *Guidance for the Assessment of Environmental Factors - Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia*,[67] which are both significantly more substantial and detailed documents than what is proposed in the draft EAG TB. The EAG should seek to provide guidance to encourage best practice surveying and reporting on NT terrestrial flora and fauna and their ecosystems.

6.2.3 Assessment of conservation significance

This assessment must contain information on:

- the conservation status of species under TPWCA or EPBC;
- the number and distribution of species;
- whether the species is significant in the area, if it is an area where species numbers have declined significantly;
- whether the species is one of a 'key functional groups', which are groups of species that play an important role in maintaining ecosystem functions;[68] and
- the life cycle of the species.

6.2.4 Assessment of impacts on Flora and Fauna

Under the TPWCA there is a permit requirement for the taking or interfering with wildlife.[69] Accordingly, at a minimum, an assessment of the impacts on fauna under the EA Act should contain adequate information for a decision-maker under section 56(1) and 56(2) of the Territory Parks and Wildlife Conservation Act. Accordingly, the EAG TB must be more specific and mimic the requirements in the Act. It should require that an assessment contains information that allows for consideration of the following:

1. any relevant principles of management set out in section 31;
2. whether the activity is consistent with all relevant management programs, co-operative management agreements, declarations of areas of essential habitat and agreements under sections 73 and 74;

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[64] *Territory Parks and Wildlife Conservation Act* (NT) S56(2)(b).
[65] *Territory Parks and Wildlife Conservation Act* (NT) S56.
[66] *Guidance for the Assessment of Environmental Factors Western Australia (in accordance with the Environmental Protection Act 1986*), Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (No. 51, June 2004).
[67] *Guidance for the Assessment of Environmental Factors Western Australia (in accordance with the Environmental Protection Act 1986)*, *Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia No. 56* (June 2004).
[68] Some scientists argue that conservation efforts should be targeted towards maintaining the diversity amongst functional groups. By better ensuring that ecological functions are maintained, this approach will maximise the number of species protected, including the many we have not yet identified.
[69] *Territory Parks and Wildlife Conservation Act* (NT) S55.

3. the likely effect (and in particular any detrimental impact) of the issue of a permit on the continued survival of wildlife, habitats, vegetation and ecosystems and on the landscape and the environment generally; and

4. whether the proponent has been found guilty of an offence against this Act or that otherwise relates to wildlife within the five-year period immediately before the person applies for the permit.

Further, with regard to impacts on fauna, in addition to what is already contained in the draft EAG, the assessment must also contain information on:

- the impact of the activity on regional biodiversity;
- whether the impact is necessary for the intended use;
- whether the proposed activity can be located and designed to avoid impact on the fauna;
- whether the proposed activity is located and designed to minimise impacts to fauna;
- the cumulative impact of the impacts to fauna on overall biodiversity conservation and management; and
- whether the impacts on the fauna could jeopardise the integrity or long-term preservation of an identified site of scientific, nature conservation or cultural significance.

Indirect impacts should also be considered. These occur when project-related activities affect species, populations or ecological communities in a manner other than direct loss. Indirect impacts can include loss of individuals through starvation, exposure, predation by domestic and/or feral animals, loss of breeding opportunities, loss of shade/shelter, deleterious hydrological changes, increased soil salinity, erosion, inhibition of nitrogen fixation, weed invasion, fertiliser drift, or increased human activity within or directly adjacent to sensitive habitat areas. As with direct impacts, consideration must be given, when applying each factor, to all of the likely indirect impacts of the proposed activity or development.[70]

6.2.5 Assessment of significance of impacts

The draft EAG TB acknowledges the Commonwealth's guidelines for the assessment of the significance of impacts on matters of national environmental significance.[71]

Under section 523 of the EPBC Act, an 'action' is defined to include projects, developments, an undertaking, an activity or series of events, or any alteration to these actions.[72] The term 'significant impact' is not defined under the EPBC Act, however the Federal Court has interpreted the provision to mean 'impact that is important, notable or of consequence having regard to its context or intensity'.[73]

EDO NT submits that the same definition should be adopted in the EAG TB, and submits that the criteria contained in the EPBC significant impact guidelines should be specifically incorporated into the EAG TB.

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[70] Threatened species assessment guidelines issued under 94A of the *Threatened Species Conservation Act 1995* (NSW). These can be found here: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf (accessed 7 July 2013)

[71] *Matters of national Environmental Significance. Significant Impact Guidelines* 1.1, DEWHA, 2009. Available here: http://www.environment.gov.au/epbc/publications/nes-guidelines.html. (accessed 7 July 2013)

[72] Ibid, s 523. Actions do not include Commonwealth, state or territory decisions or authorisations granted under some Acts such as *Customs Act 1901* (Cth).

[73] See *Booth v Bosworth* [2001] FCA 1453, [99].

For example, the EPBC significant impact guidelines for critically endangered and endangered species are:

> 'An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:
>
> - lead to a long-term decrease in the size of a population
> - reduce the area of occupancy of the species
> - fragment an existing population into two or more populations
> - adversely affect habitat critical to the survival of a species
> - disrupt the breeding cycle of a population
> - modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that
> - the species is likely to decline
> - result in invasive species that are harmful to a critically endangered or endangered species
> - becoming established in the endangered or critically endangered species' habitat
> - introduce disease that may cause the species to decline, or
> - interfere with the recovery of the species.' [74]

Most other jurisdictions across Australia have specific listed criteria in threatened species legislation or in guidelines and EDO NT submit that the same should be done in the NT.

For example, in NSW, under Section 5A of the *Environmental Planning and Assessment Act 1979* a Seven Part Test is required to determine 'whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats'.[75] NSW has a stand-alone document, *Threatened Species Assessment Guidelines: the assessment of significance*[76] that is used to assess the significance of impacts.

In deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats, the following factors must be taken into account:

1. in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction;

2. in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction;

3. in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

   (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

   (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction;

4. in relation to the habitat of a threatened species, population or ecological community:

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[74] *Matters of National Environmental Significance. Significant Impact Guidelines* 1.1, DEWHA, 2009. Available here: http://www.environment.gov.au/epbc/publications/nes-guidelines.html p 10.

[75] *Environment Planning and Assessment Act 1979* (NSW) Section 5A. In addition, under section 94A of the *Threatened Species Conservation Act 1995* threatened species assessment guidelines are issued. These can be found here: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf.

[76] NSW Government (2007) *Threatened Species Assessment Guidelines: the assessment of significance.* Available here: http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf (accessed 11 July 2013).

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality;

5. whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly);

6. whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan; and

7. whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.[77]

Specific listed criteria such as the above are appropriate, and the draft EAG TB should be amended to incorporate these.

We do not propose to comment on the Appendix to the EAG, which contains standard terrestrial vertebrate survey methods used by the Department of Land Resource Management. This is not legal or procedural in nature and thus not within our area of expertise

[77] These are the criteria listed in the NSW *Environment Planning and Assessment Act 1979* (NSW) Section 5A.

7. Environmental Assessment Guidelines on Acid and Metalliferous Drainage (AMD)

The draft Environmental Assessment Guidelines Acid and Metalliferous Drainage (EAG AMD) 'define the information requirements of an Environmental Impact Assessment (EIS)'[78] which may be required for approval of a proposed mining project under the *Environmental Assessment Act.* The EAG AMD is intended to direct the proponent to 'provide sufficient characterisation'[79] to enable the decision-maker to determine whether the project shall produce acid and metalliferous drainage (AMD) or other contaminants and, if so, to detail strategies to 'prevent, mitigate or manage'[80] these pollutants throughout all phases of the mine.

Considering the environmental significance of the subject matter, this document is threadbare when reviewed against comparable documents from other jurisdictions, such as the NSW Environmental Impact Assessment Guidelines[81] which deal with similar subject matter. Perhaps this simplification is intentional to assist proponents in their comprehension of the EIS requirements, however doing so misses the opportunity for prescription on the detail required to ensure effective decision making on environmental issues. These deficiencies are addressed below.

7.1 Legislative requirements

The EAG AMD correctly reference the relevant legislation under NT and Commonwealth law (in the case where the activity may impact Matters of National Environmental Significance[82]). However, as the purpose of the Guidelines is directed towards the identification and management of potential AMD, the detail of relevant legislation is limited and admittedly 'indicative… not exhaustive'[83].

7.2 Investigation

The focus of this section of the EAG AMD is detailing the preferred investigation process for identifying the potential for AMD. Providing this information to the proponent is fundamental. However, in consideration of the importance of accurate identification of the potential for AMD from proposed mining operations, the EDO NT proposes in addition that a Sampling and Analysis Plan (SAP) be developed for submission to and authorisation by the NT EPA prior to the commencement of investigation for AMD. This strategy for a SAP is outlined in the Draft Guidelines for the Environmental Assessment of Marine Dredging in the Northern Territory (NT EPA, April 2013) and is considered relevant and appropriate in this context for ensuring sampling and analysis is undertaken in a manner appropriate to the extent of possible environmental impacts associated with AMD.

Within this section of the EAG AMD, there is very little detail on the requirement for investigations of the receiving environment and the potential impacts of AMD on those ecosystems. The EIS should include a very detailed assessment of the existing environment, including a description of surface and groundwater sources, threatened species, populations and ecological communities, and

[78] Northern Territory Environmental Protection Agency 'Draft Environmental Assessment Guidelines Acid Metalliferous Drainage', Version 1.2, April 2013, p 1.
[79] Northern Territory Environmental Protection Agency 'Draft Environmental Assessment Guidelines Acid Metalliferous Drainage', Version 1.2, April 2013, p 1.
[80] Northern Territory Environmental Protection Agency 'Draft Environmental Assessment Guidelines Acid Metalliferous Drainage', Version 1.2, April 2013, p 1.
[81] NSW Department for Resources and Energy, 'ESG2: Environmental Impact Assessment Guidelines For exploration, mining and petroleum production activities subject to Part 5 of the Environmental Planning and Assessment Act 1979', March 2012
[82] Under the *Environmental Protection and Biodiversity Conservation Act 1999*
[83] Northern Territory Environmental Protection Agency 'Draft Environmental Assessment Guidelines Acid Metalliferous Drainage', Version 1.2, April 2013, p 2.

a description of Aboriginal, historic or natural heritage values[84] as a minimum. Once identified, the impact of the potential AMD should then be assessed in the context of this environmental setting and its associated sensitivities. The identification of the existing environment and the potential impacts of the proposed activity are seminal components of an EIS and should be detailed in this document accordingly.

7.3 Management strategies

As stated in Section 8 of the EAG AMD, 'appropriate management strategies must be detailed in the EIS, to show how potential AMD and other potential contaminants would be prevented, mitigated or managed'. This is supported by the Leading Practice Sustainable Development Program for the Mining Industry[85] which asserts that proposed management strategies should be defined in the project's concept phase, to ensure not only that environmental management appropriate to the proposed risk is understood and implemented, but also that the mine will continue to be viable in consideration of this management. As such, it is recommended that the wording in this section be strengthened to require a mandatory AMD management plan to be included as a component of an EIS for all proposed sites where AMD has been identified as likely to occur. This management plan should include the monitoring defined in Section 9 of the EAG AMD, including acceptable thresholds for all monitored impacts and activities to be undertaken should these thresholds be exceeded.

7.4 Closure planning

Mining should only proceed if closure planning conducted during the feasibility phase demonstrates that AMD can be managed from both technical and economic perspectives[86]; however, in spite of this, closure planning addressing AMD is inadequately considered in the EAG AMD. It is not discernible through the wording of the EAG AMD whether a closure plan is actually required as part of the EIS, but in consideration of the history of legacy issues caused by AMD[87], it should be considered an essential item for proposed mine projects, most importantly those where AMD has been identified as likely to occur.

The wording in this document should be strengthened to explicitly assert that a mine closure plan is required to be included as part of the environmental assessment for all mines where AMD has been identified, and should set a list of minimum requirements for inclusion in such a plan.

Lessons of what should be included in a basic mine closure plan can be found in the Western Australia guidelines for preparing mine closure documents[88]. Western Australia (WA) which has vast experience in the environmental management issues resulting from mining operations, has provided to potential proponents a 78-page document on the content to be included. As taken from the WA document: the Australian national leading practice handbook on AMD[89] states that, for the

[84] NSW Department for Resources and Energy, 'ESG2: Environmental Impact Assessment Guidelines For exploration, mining and petroleum production activities subject to Part 5 of the Environmental Planning and Assessment Act 1979', March 2012.
[85] Department of Industry, Tourism and Resources, 'Managing Acid and Metalliferous Drainage, Leading Practice Sustainable Development Program for the Mining Industry', February 2007, p 19
[86] Above at p 14.
[87] For example; Tasmania has over 215 abandoned mine sites that are potential acid producers or are currently producing acid, as discussed in 'Tasmanian Acid Drainage Reconnaissance; 1. Acid Drainage from Abandoned Mines in Tasmania', Dr Shivaraj Gurung, Tasmanian Geological Survey Record 2001/05.
[88] Western Australia Department of Mines and Petroleum and the Western Australia EPA, 'Guidelines for Preparing Mine Closure Document', June 2011.
[89] Department of Industry, Tourism and Resources, 'Managing Acid and Metalliferous Drainage, Leading Practice Sustainable Development Program for the Mining Industry', February 2007.

purpose of approvals a mine closure plan must be developed and seen to be workable and convincing[90].

In light of this statement – in addition to the swathe of information required to address environmental management of a closed mining operation – in order to adequately address AMD in a mine closure plan, the WA guidelines provide the following direction:

- has the risk of AMD been determined through suitable geochemical testing;
- has watershed characterisation been carried out that identifies contaminant pathways and potential receptors;
- have management measures been proposed to prevent environmental harm or pollution; and
- are suitable engineering measures available to manage or contain these materials during operations and closure?

If the response is affirmative for the above prompts, the WA guidelines conclude that the closure plan *may* then be adequate.

EDO NT considers that in addition to the above, the closure plan should provide a number of proposed options for the management of AMD once mining operations have ceased, and a cost and environmental analyses of each. These analyses should be used to validate the final proposed management option. Additionally, the closure plan should include or make reference to a detailed rehabilitation management plan, included revegetation strategies, monitoring programs incorporating measurable targets, management controls and final land use objectives. Finally, closure plans should provide an economic assessment of the proposed management and rehabilitation activities, to determine the viability of the proposed mine in light of AMD costs, potentially in perpetuity.

7.5 Conclusion

Based upon its defined purpose, the EAG AMD should detail more explicitly the exact information required from the proponent in order to effectively assess the environmental impacts of the proposed activity. As such the language must be strengthened to clearly define what information would be mandatory and include the requirements to provide the NT EPA with a closure plan (incorporating or referencing a rehabilitation management strategy) and AMD management plan (including detailed monitoring strategies). Furthermore it is recommended the NT EPA is provided a SAP prior to the commencement of the identification process to ensure the potential for AMD is adequately assessed.

[90] Department of Industry, Tourism and Resources, 'Managing Acid and Metalliferous Drainage, Leading Practice Sustainable Development Program for the Mining Industry', February 2007, at page 18.

8. The four 'trigger' Environmental Assessment Guidelines

In this section of the submission, EDO NT seeks to respond to the suite of Environmental Assessment Guidelines for –

- development proposals submitted under the *Planning Act*;
- mining exploration or production proposals submitted under the *Mining Management Act*;
- land clearing proposals submitted under the *Pastoral Land Act*; and
- onshore petroleum exploration or production proposals submitted under the *Petroleum Act*.

This is on the basis that these four EAGs are different in character from the other seven that have been exhibited for public consultation. They are 'trigger' or 'screening' guidelines, in that they seek to provide guidance as to when a proposal triggers the EA Act and requires a Notice of Intent to be submitted to the NT EPA. This differs from the remaining seven guidelines, which seek to guide a proponent in the preparation of environmental assessment documentation, once it has been established that an EA is required under the EA Act.

Additionally, the four trigger EAGs listed above contain large swathes of content that are identical or very similar. For example, sections 1 to 6 of each in each EAG is the same, subject to minor differences because of the different types of activity covered. For this reason also it is most efficient to comment on them as a bundle of EAGs.

8.1 What triggers the EA Act? The legislative scheme

Section 4 of the EA Act states that its objective is -

> 'that each matter affecting the environment which is, **in the opinion of the NT EPA**, a matter which could reasonably be considered to be capable of having a significant effect on the environment, is fully examined and taken into account and in relation to:
>
> (a) the formulation of proposals;
>
> (b) the carrying out of works and other projects;
>
> (c) the negotiation, operation and enforcement of agreements and arrangements (including agreements and arrangements with, and with authorities of, the Commonwealth, the States and other Territories);
>
> (d) the making of, or the participation in the making of, decisions and recommendations; and
>
> (e) the incurring of expenditure, by, or on behalf of, a person, either alone or in association with another person.' (emphasis added).

This places the obligation squarely on the NT EPA to determine whether or not a proposed action may have significant effects on the environment and, consequently, whether or not an EIA is required. This is supported by the 'Guide to the Environmental Impact Assessment Process in the Northern Territory' (the EIA Guide), which states:

> 'The NT EPA determines which proposals should be subject to assessment under the Act and also decides on the appropriate level of assessment in each case.'[91]

A proponent for a proposal requiring consent must give notice of the proposal to the responsible Minister (determined according to the nature of the proposal). This could be, for example, a proposal under the Planning Act, the Mining Management Act, the Pastoral Land Act or the Petroleum Act. The responsible Minister then must give notice to the NT EPA of the formulation of a 'proposed action'.[92] This is known as the Notice of Intent (NOI). The NT EPA may then require a proponent to provide further information to enable the NT EPA to determine whether or not an environmental assessment (EA) is required[93].

In this process, two separate administrative decisions can be identified as part of the process for determining whether an EA is to be done. Firstly, the responsible Minister decides whether or not a proposal can be classified as a 'proposed action' under Section 4 of the EA Act. If the answer to that is yes, then notice must be given to the NT EPA of the proposal. Secondly, it is then the responsibility of the NT EPA to determine the potential for the proposal to have a significant effect on the environment and, consequently, whether an assessment is required.

These draft EAGs state that the aim is to assist proponents and the relevant consenting authorities to determine when a referral to the NT EPA and assessment are **not** required. They purport to provide advice on when preparation and submission of an NOI is not required. A checklist in each of the four trigger draft EAGs outlines particular circumstances, which must all be answered 'yes', to determine that an NOI is not required to be provided to the NT EPA. Presumably, this acts like a screening process prior to an application for development consent being submitted so that an EIA or PER can be submitted with the application, as required under the relevant legislation.

8.2 Lack of clarity around various guiding documents and approach

It is not clear how the EAGs released for consultation sit alongside the EIA Guide. Whilst the EIA Guide is mentioned in the Background section of the trigger EAGs[94], it is not made clear if the documents apply independently of each other or in a complementary manner. The EIA Guide advises of the administrative procedures in conducting an environmental assessment, including the requirement for an NOI. Information requirements are meant to be provided in Appendix 1 of the EIA Guide. However, they are currently stated to be under review[95]. We understand that this guidance is being developed currently and will be consulted on in the future. However, it is difficult to see if there is meant to be crossover between the requirements in each trigger EAG and this document.

The EA Guide advises that there are some cases where a Memorandum of Understanding (MoU) has been agreed between the relevant Minister and the NT EPA which identifies those types of developments that will require referral to the NT EPA. For this purpose, examples of what types of proposals may require some level of formal environmental assessment are outlined in Appendix 2 of the EIA Guide. Appendix 2 also outlines those proposals where it has been agreed under a MoU that referral from the Department of Mines and Energy to the NT EPA will occur. However, the potential for or existence of these MoUs is not mentioned within the draft EAGs on proposals under the Mining or Petroleum Acts.

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[91] At pp 3–4.
[92] NT Environmental Assessment and Administrative Procedures, see also Section 6 of the EA Act.
[93] Section 6. See also the EIA Guide p 4.
[94] At p 3, para 1.2.1.
[95] See page 4 at para 4.1 and Appendix 1 at p 13.

After speaking with a representative of the NT EPA, EDO NT now understands that it is the intention of the NT Government to remove Appendix 2 from the EIA Guide and to cease the use of MoUs in deciding situations in which referral will be required. This will be replaced by the approach proposed in the EA Guidelines. This information has not been made clear within this consultation and should have been, because it potentially represents a significant change in the process and what proposals will trigger EIA.

The change in approach has been suggested due to perceived problems with the MoU approach, and the view that the use of thresholds in identifying types of proposals that require referral has not been working well. Whilst we understand the desire for a better, simpler and more consistent approach, we are concerned that this may result in projects that would previously have been automatically referred no longer requiring assessment. For example, the MoU agreed with the Department of Mining and Energy required that all petroleum development proposals would require referral.[96] We now know that this is to be replaced by the proposed checklist in the EAG for onshore petroleum exploration or production proposals submitted under the Petroleum Act. This EAG provides much greater discretion in the types of proposals that should be referred. This is a significant change in the application of the EA Act but there is no evidence or justification provided as part of the consultation to support this change. Without this, these changes are not supported by the EDO NT.

Overall, it would have been useful if some case studies were made publicly available that demonstrate how the current system is working or not working, and what issues have been identified by the NT EPA that have informed this new approach. This would help with understanding the need for change, and allow EDO NT and others to provide more targeted comments and recommendations responsive to this consultation.

8.3 Problems with the 'checklist' approach

EDO NT has several concerns with the 'checklist' approach contained in the trigger EAG drafts, and these are as follows.

8.3.1 The 'negative' approach and lack of focus on 'significant impacts'

The four trigger EAG drafts are negative in their approach; that is, they regulate what will not require assessment rather than what potentially will. The trigger EAGs do not assist in identifying what is a 'proposed action', how to categorise what might be a 'significant effect', and/or the level of significance of the effect.

The four trigger EAG drafts advise that proposals will not require referral when the criteria in the checklist have been met. Presumably, the checklist is intended to identify certain circumstances where it is likely that proposals will not give rise to significant effects, although this is not clearly stated. Regardless, it is the position of EDO NT that a preferred approach is that the trigger EAG drafts clearly spell out criteria that can assist with placing a development or activity under one of the categories listed in Section 4 (a) – (e) of the EA Act, or what can be defined as a significant effect on the environment (or both).

In our view, guidance which promotes better understanding of what is a significant effect, and what circumstances will result in such effects, is needed. Currently, the trigger EAG drafts provide no assistance in this respect and this should be rectified in the next iteration. There is no attempt to define significance, or provide examples of types of development where an EIA would be

[96] See the EIA Guide at Appendix 2, p 15.

required. It is difficult to see how an approach aimed at avoiding the application of the EA Act improves its implementation and promotes best practice on the ground.

8.3.2 Shifting responsibility away from the NT EPA

The 'checklist' approach proposed in the trigger EAGs is also problematic in that it enables decisions to be made about whether or not an EA might be required without NT EPA involvement and in the absence of any supporting evidence. It must be remembered that, as required by law, it is ultimately the responsibility of the NT EPA to decide whether or not an EA is required. It would be concerning if the intended aim of the checklist is to shift this responsibility from the NT EPA to a proponent or consent authority.

The provision of a checklist for proponents or authorities to complete allows them to decide when there is no requirement to refer a proposal for consideration by the NT EPA. It is unclear if, and how, the NT EPA would still be informed of the proposal and be able to check the accuracy of the decision made by the proponent or authority. This gives rise to the potential for determinations to be made about whether a proposal will give rise to significant effects on the environment, and whether or not an EIA is required, without the NT EPA's involvement. This could lead to arguments that the NT EPA is not fulfilling its obligations under the EA Act. It could also result in incorrect and un-checked decisions being made about whether or not the proposal should be referred to the NT EPA. The checklist may simply be used as a tick-box exercise, where the person completing it uses his or her own judgement about whether or not a particular criterion is met. The trigger EAG drafts do not require any verification of the completed checklist. In particular, there is no requirement for supporting information or evidence to be used or made available, or any reasoning to be outlined, to demonstrate what has been considered in completing the checklist.

If the 'checklist' approach is proceeded with (which we do not support) we submit that this must only be done if there is a process in place whereby assessments that an NOI is not required is supported by evidence and confirmed by the NT EPA. For instance, the completed checklist, as well as supporting evidence, should be provided to the NT EPA for consideration and agreement prior to the application for the proposal being lodged. The agreed assessment should then be provided to the consent authority as part of the application for the proposal. In completing the checklist and deciding that no referral to the NT EPA is required, the proponent should be required to state and provide evidence that no likely significant effects on the environment will result. All of this documentation should be made publicly available on the NT EPA website.

We also caution that care must be taken not to make pre-emptive decisions about the level of significance of effects in assessing whether referral to the NT EPA is required. The aim should be to identify the *likelihood* that a proposal will result in significant effects, which is a different matter. If it can be established that there is potential for significant effects to arise, it is then the role of the EIA to fully assess the effects and their significance for deciding whether or not a proposal should proceed.

8.3.3 Lack of consultation required

There is no requirement for a proponent or consent authority to undertake any consultation as part of the process for assessing whether an NOI is required.

Some of the criteria within the checklists refer to parallel processes which may be required as part of the consenting process for a proposal. Whilst this implies that there will be consultation between the proponent and the authorities responsible for managing these processes, this may only relate to the specific issue or plan referred to. There is no clear guidance on if and who a proponent or consenting authority should consult to assist them in completing the checklist and making a decision about whether or not an NOI is required. It may be relevant and useful for a proponent to

consult with a number of different organisations, as well as local residents who may be able to provide information on local circumstances, when trying to establish the likelihood that a proposal will result in significant effects on the environment.

8.3.4 Checklist criteria rely on judgements of other authorities and implementation of plans

Several criteria within the checklists are conditional upon the completion of plans and that they will be implemented to the satisfaction of the relevant government department or other authority. There are several problems with this approach. Firstly, there is a timing issue. Given that consideration of whether to refer a proposal to the NT EPA should occur in the very early stages of preparation of the proposal, EDO NT questions whether all of the mentioned plans will be, or can be, completed at this stage of the process. In addition, the plans may require actions that must be undertaken at various stages of the life of the proposal, including prior to commencement, during operation and after decommissioning. EDO NT queries how an assessment can be made, before a proposal is even consented, that all required plans will be completed, adopted and any required actions carried out.

Secondly, EDO NT is concerned that the proponent or consenting authority cannot make a judgement at the early stages of the consenting process that all plans will be implemented to the satisfaction of the relevant authority – as this requires a judgement at the time of completion of the required action and not before. The approach in the trigger EAGs assumes that a development proponent will competently carry out all that is required under a relevant plan. This fails to recognise that unforeseen factors or changes in circumstances may mean that plans cannot be effectively implemented, or in fact that a proponent does not have any incentive to implement plans robustly since consent has already been given. It also fails to recognise that even though actions may be completed in accordance with a plan, this may not avoid negative environmental impacts.

To illustrate this, the draft EAGs for 'Mining exploration or production proposals submitted under the *Mining Management Act*' and 'Onshore petroleum exploration or production proposals submitted under the *Petroleum Act*' are referred to. Contained in these EAGs are several criteria which seemingly can be fulfilled with mitigation of any negative impacts identified to the satisfaction of the relevant authority. Again this assumes not only that the development proponent will carry out agreed mitigation measures, but also that they will be completely effective. EDO NT believes that this cannot be assumed in the absence of robust and sufficient evidence that demonstrates that the recommended mitigation measures have worked successfully in other cases. Without this evidence, such criteria should not be relied upon to avoid an environmental assessment.

8.4 A positive approach based on the significance of impacts

It is the EDO NT's view that the negative approach adopted in the four trigger EAGs should be abandoned, and instead a significant impacts checklist should be developed to help users decide whether a proposal triggers the EA Act and the need for a NOI to be prepared, based on the characteristics of the project and its environment. Indeed this is the approach of the Commonwealth under the EPBC Act.

Accordingly, the NT EPA should develop and apply a Significance Framework to make decisions through the environmental impact assessment process, based on the concept of significance established under the EA Act. The likely significance of impacts for each key environmental factor can then be the focus of the EA process, if one is required. The purpose of the Significance Framework will be to summarise how the NT EPA makes decisions regarding the likely significance

of impacts of a proposal, using a risk-based approach. This would include when a proposal 'triggers' the EA Act in the first place and an NOI needs to be provided. The Framework could be supported by the more detailed and specific EAGs if that is deemed beneficial.

Many examples exist from around Australia and world that demonstrate this approach. The Commonwealth's significant impact guidelines have already been mentioned. WA has newly released their Environmental Assessment Guideline No. 9, which seeks to provide guidance on when a proposal might have significant impacts, and thus will require referral under the environmental impact assessment legislation.[97]

EDO NT urges the NT EPA to look to such examples, and seriously contemplate a change in its approach.

8.5 Specific comments on individual guidelines

In the absence of a significance framework, we submit that all clearing on pastoral lands should require a NOI to be provided to the EPA for decision on whether an EA will be required under the EA Act or not. The EAG for land clearing proposals under the Pastoral Lands Act should be amended accordingly.

In the experience of the EDO NT, mining laws do not give adequate protection to the environment, to sensitive land uses, or to the communities who stand to be adversely affected by mining activities. Accordingly, the position of EDO NT is that all proposals for mining exploration and production should require a NOI to be sent to the EPA for determination of whether an EA is required or not.

Accordingly, EDO NT does not support the currently drafted EAG Mining in its form or approach, which proposes that in some circumstances, mining exploration and projects can proceed without the knowledge or involvement of the NT EPA (if the items on the checklist can be said to be met). At a minimum an NOI should be provided to the NT EPA. This is not an onerous requirement, especially for such a potentially lucrative project. Amending the EAG mining in this way achieves certainty to proponents of mining activities in all circumstances.

With regard to the EAG for onshore petroleum exploration or production proposals under the Petroleum Act (EAG Petroleum), the position of EDO NT is the same as it is for EAG Mining. This is due to the potentially severe environmental impacts associated with petroleum projects.

If the NT EPA is determined to proceed with trigger EAGs for specific types of projects, such as mining and petroleum (which EDO NT does not support), it should look to other jurisdictions which have developed guidelines based on the potential impacts of projects, rather than a negative checklist approach that we see with the four draft trigger EAGS. For example, the Queensland government have a specific guideline document titled *Triggers for environmental impact statements under the Environmental Protection Act 1994 for mining, petroleum and gas activities*,[98] which demonstrates this approach.

[97] Available here: http://edit.epa.wa.gov.au/EPADocLib/EAG%209%20Significance_framework2013.pdf (accessed 10 July 2013). Note EDO refers to this document by way of an example of a 'significant impacts' approach, but does not explicitly support the contents of the WA EAG.

[98] Available here: http://www.ehp.qld.gov.au/management/impact-assessment/pdf/eis-guideline-trigger-criteria.pdf (accessed 11 July 2013).

9. Guidelines on Conceptual Site Models

As previously stated, the series of EAGs released recently by the NT EPA are intended to act as either:

- guidelines for which projects do not require notification to the NT EPA under the *Environmental Assessment Act*; or
- guidelines for specific issues including acid and metalliferous drainage, biodiversity, social impact assessment and offsets, etc.[99]

It is understood that the Guidelines on Conceptual Site Models (EAG Site Models) fall into the latter category, however the role of conceptual site models (CSM) in approvals or environmental assessment process is not clearly defined, mandated or justified and as such EDO NT is left curious as to if and when a CSM should be provided to the NT EPA, or indeed why this EAG has been written at all. Background information providing context and knowledge as to need and application is critically required with regard to the draft EAG Site Models.

The NT EPA clearly defines the objective of the EAG Conceptual Site Models as being to 'assist industries in developing a CSM for the purposes of a licence or approval under section 74 of the *Water Act* or part 5 of the *Waste Management and Pollution Control Act*'[100]. However, while this document provides a description of CSMs, it doesn't explain *why* this CSM information is being provided, nor could this information be found in the 'Waste and Pollution' section of the NT EPA's website or any linked pages from this location.

Readings of both the *Water Act* and the *Waste Management and Pollution Control Act* (and associated regulations) find no mention of CSM as a requirement for any licence or approval.[101] What is provided in the legislation however is a list of mandatory considerations[102] on which the decision-maker must deliberate in the determination of any environment protection approval, environment protection licence or best practice licence under the *Waste Management Pollution Control Act*. As such, it is considered this information would be more appropriate to provide to any proponent looking to apply for these approvals, than detailed workings of a CSM as included in these EAG Site Models.

The next iteration of EAG Site Models must provide clarity up front as to why, when and under what circumstances the CSM is required. This information would be best provided in the 'Introduction' (Section 1) to provide the legal or procedural context of the CSM for development in the NT, or the chapter 'Why is a CSM needed?' (Section 3). Currently the Introduction merely provides the objectives of the EAG Site Models and brief detail of what is included, and Section 3 describes how a CSM can be used 'to support decision making processes and environmental risk assessment' but essentially leaves the questions of when and under what circumstances to the guess of the reader.

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[99] Personal correspondence: Rod Johnson, A/Manager Environmental Assessment NT EPA, email 25 June 2013.
[100] Northern Territory Environmental Protection Agency 'Guidelines on Conceptual Site Models', Version 1.2, May 2013, p 3.
[101] The Waste Management and Pollution Control Act at Part 5, clause 31 (2) states that '*an application under subsection (1) is to be in the approved form accompanied by the prescribed fee, if any*' however no reference to CSM as part of an approved form could be found. Also, the Waste Management and Pollution Control Act at Part 5, clause 31 (4) states that '*An application under subsection (1) is to be accompanied by information to enable the NT EPA to assess the environmental risks associated with the activity specified in Schedule 2 to which the application relates*' again, no specific reference is made to a CSM as being the required accompanying information for an application.
[102] Waste Management and Pollution Control Act, Part 5, clause 32(1)

In order to continue a review of the document, an assumption is made at this juncture that a CSM is required as part of the licence determination process. The EDO NT conditionally supports the use of CSM as a tool to represent the 'nature, fate and transport of discharges, wastes and contaminants'[103], to be provided by proponents for any licence, permit or approval, as long as this information is packaged with accompanying material presenting detail of other relevant environmental considerations. A CSM alone does not provide sufficient information for determination of activities or approval for the release of pollutants into the environment. The information included in a CSM is of a preliminary nature only, best used as a guide for proponents to determine which issues will need to be examined through a more rigorous environmental assessment process. For example, the CSM needs to be considered in concert with assessments of cumulative impact, sensitivity of receiving environment and the impacts of the activity/pollutant on the receptors identified, before an educated approval determination can be made.

More importantly, it is the opinion of EDO NT that when determining a discharge or waste licence, a holistic integrated catchment management approach should be adopted; that is, licences should not be addressed on a case-by-case basis but determined based on an identification of the existing impacts on the catchment (or receiving environment), the capacity of the catchment for resilience to these existing impacts, and a scientific assessment of the point at which no further impacts could be introduced without resulting in significant environmental damage.

Determinations must be centred on an ecosystem-based approach that is implemented through a local 'case by case' application. Currently, the matters to be considered as defined at clause 32(1) of the Waste Management and Pollution Control Act do not include a catchment-based approach for determination of new licences, which EDO NT considers a failure of the legislation as currently written.

In brief, to better understand the reason for the EAG Conceptual Site Models an explanation must be provided to elucidate the purpose for which a CSM is required for the approval of licences or permits granted by the NT EPA, and/or how it is commonly used. Furthermore, if a CSM is a mandatory or recommended requirement for such an approval, this information should not be considered alone and must be supplemented with an environmental assessment to allow the adoption of a catchment-wide management approach to be implemented by the NT EPA.

[103] Northern Territory Environmental Protection Agency 'Guidelines on Conceptual Site Models', Version 1.2, May 2013, p 3

10. Guideline for Disposal of Waste by Incineration

EDO NT doesn't propose to comment on the EAG for the Disposal of Waste by Incineration (EAG Waste) in detail as much of its content is technical and scientific and not legal in nature, and thus not within our area of expertise. For example, as lawyers, the EDO would not purport to have an opinion on what are the appropriate levels of exhaust gas emission concentrations (table 2 on page 15), or amenity buffer distances (page 17). We hope that the EPA receives submissions from other organisations and individuals covering these matters.

In the chapters of the EAG Waste that are legal, the document only seeks to summarise the relevant instruments that regulate this topic. In the most part, this is limited to replicating the objects clauses of a handful of Acts, such as the Public and Environmental Heath Act and the Environment Assessment Act, and listing a range of other codes and guidelines that may apply. In this regard, we do not have much of substance to add. We will say that the EAG Waste is of limited use in terms of guidance, as most of this information can already be found in the parent Acts. Further, it goes no distance to guiding a proponent or community as to how these various legislative schemes interact, how to comply accordingly, or when an EA might be required for incineration facility and how to prepared the relevant documentation for the process.

We make the following brief comments on the EAG Waste.

- The EAG Waste is poorly structured and difficult to follow. Most problematically, it is unclear what is being regulated. There is a section that states types of wastes that are not covered by the guidelines, but there is no positive statement of what is covered. The draft guidelines draw heavily on the Biohazard Waste Management Industry Code of Practice for the Management of Clinical and Related Wastes, but again it is not made clear that these guidelines apply only to the disposal of clinical wastes. There should be a definite statement of the types of wastes that the EAG Waste intends to cover.

- It is not clear which process the EAG Waste is seeking to provide guidance on. The EAG title suggests that the document is to guide the assessment of environmental impacts, presumably under the EA Act. However this is an entirely separate process under a separate legislative scheme to the licensing and approval processes under the Waste Management and Pollution Control Act. The EAG Waste does not provide guidance on how these schemes are intended to interact, which is a missed opportunity.

- The EAG Waste incorporate a plethora of material from a number of different regulatory areas - such as the management of clinical waste, air quality and air toxins – which are subject to different regulatory regimes and different national and NT policies. While each of these areas overlaps, they are not interchangeable. Again, because it is unclear what activities the EPA seeks to cover with the EAG Waste, it is unclear what law, regulation or policy applies to what activity and how these are intended to operate and interact.

- The standards by which environmental impacts will be judged are also ill defined. For example, Section 8.2 states 'The ambient air quality design criteria used in gaining approval for a facility must comply with NT EPA requirements'. It does not state which requirements are relevant, except to say that it is recommended that the NT EPA implement the Victorian SEPP. The guidelines should state in detail what standards apply, explain them and state the source from which they were drawn.

As we have said elsewhere in this submission with regard to other EAGs, the EPA should have provided background material as part of this consultation process to give context to each EAG and clarity around what is trying to be achieved with each. The EAG Waste is a substantial document

but it can be described as a haphazard collection of information rather than a meaningful guide document that will provide practical direction to proponents and the community when navigating regulatory requirements.

11. Conclusion

While EDO NT is appreciative of the opportunity to comment on the NT EPA's draft EAGs, it is disappointed with both the consultation process (in particular the lack of background information provided) and the quality and content of the draft EAGs released.

EDO NT reiterates that the Guidelines as a package are light on detail and do not go far enough in developing a standard of assessment suitable for the determination of the variety of environmentally damaging proposals. Generally speaking the draft EAGs lack detail, are not specific to the jurisdiction of NT and do not reflect best practice in environmental assessment. They do not measure up against EA processes in other jurisdictions of Australia, nor what is considered to be best practice internationally. As they stand in draft form, EDO NT is concerned that they will not provide comprehensive guidance to proponents and decision-makers.

As a package, the EAGs must more explicitly detail the exact information required from the proponent in order to effectively assess the environmental impacts of the proposed activity. As such the language must be strengthened to define clearly what information is mandatory. The standards by which environmental impacts will be judged should also be included.

EDO NT is confident that significant improvements across the range of EAGs are possible, and is enthusiastic about the opportunity to be involved in this process. In particular, EDO NT seeks the opportunity to meet with the NT EPA to discuss the guidelines.

EDO NT has been advised that further EAG will be released in due course, and anticipates developing a submission in response to these also. EDO NT urges the NT EPA to consider carefully the provision of background material to the public in any future consultation processes.