



**NORTHERN
LAND COUNCIL**

**Submission to the Northern Territory Environment
Protection Authority on the Draft Report**

***Seabed Mining in the Northern Territory –
Environmental Impacts and Management***

November 2020

Discussion

This submission to the Northern Territory Environmental Protection Authority (NT EPA) regarding the *Draft Report Seabed Mining – Environmental Impacts and Management* (the Draft Report), considers the views, rights and interests of Traditional Owners¹ in the management of Sea Country and coastal areas. The Northern Land Council's (NLC) enclosed recommendations and comment are provided to assist the NT EPA in drafting the Final Report.

Although the Draft Report's scope does not include cultural values, we include comments and recommendations in our submission that relate to both western science and cultural values and beliefs for two reasons:

- (1) Traditional Owners as landowners of the coastal areas recognise the land and the sea as one connected environment; and
- (2) Ultimately, any legislative, regulatory and management framework for seabed mining that is consistent with the principle of sustainable development must incorporate ways to understand and assess risks to environmental values that captures the cultural, social, and economic aspects.

Since the moratorium was imposed in 2012 significant improvements have been made to the Northern Territory Government's (NT Government) environmental regulatory regime. The most important changes came with the introduction of the *Environmental Protection Act 2019*. However, as noted in the Draft Report (p.6): *'Notwithstanding the regulatory environment has changed, **considerable challenges remain in effectively regulating seabed mining operations.***'

It is worth noting that the significant challenges identified by the NT EPA do not consider the potential risks and impacts to cultural values. There are a multitude of sacred and culturally important sites (both registered and not registered with the AAPA) in the marine environment that could be threatened by seabed mining.

The extensive supporting evidence and the conclusions in the Draft Report indicate that many of the issues that triggered the moratorium remain unresolved, including:

- limited experience in regulating seabed mining in tropical environments;
- knowledge gaps related to marine and coastal environments;
- considerable challenges in effectively regulating seabed mining operations;
- a lack of baseline environmental data; and
- lack of engagement and knowledge about the cultural significance of the coastal marine and seabed environment.

In combination, the limited understanding of the marine environment and its key values; the limited legislative experience; and limited specific regulatory tools related to the regulation and monitoring of the mining of mineral resources in the marine and intertidal zones suggests that it would be premature to lift the moratorium. Furthermore the unique challenges presented

¹ For the purposes of this submission, the term Traditional Owner includes traditional Aboriginal owners (as defined in the *Aboriginal Land Rights (Northern Territory) Act 1976*), native title holders (as defined in the *Native Title Act 1993*) and those with a traditional interest in the lands and waters that make up the NLC's region.

by a combination of technical challenges related to available technology and untested mining methodologies, extreme (stochastic) weather events, and environmental sensitivities, including climate change predictions and the ability for sediment to migrate off lease due to the interconnectedness of the marine environment, in the NLC's opinion present an unacceptable level of risk, and combined create an apparently insurmountable obstacle to effective regulation of seabed mining in the NT.

It is notable that no recommendations are presented in the Draft Report, instead key findings and conclusions are presented. The NLC believes the absence of recommendations reduces the document's ability to inform and advise Government with respect to how best to proceed in regard to the status of the moratorium. The NLC advocates that the addition of recommendations to summarise and focus the significant body of work contained in the Draft Report, supporting documents and other information (e.g. case studies) would significantly improve the effectiveness of the Report.

The NT EPA has made a number of key findings and conclusions on the management of seabed mining in its advice to the Northern Territory Government. Ultimately, it is a matter for the Northern Territory Government, to determine a policy position on seabed mining in the Northern Territory's coastal waters. (p.6)

The above quote from the Draft Report suggests that:

- (a) The NTG has yet to develop a policy position on seabed mining; and
- (b) No policy, guidelines or regulations specifically related to seabed mining and the protection and regulation of the marine and coastal environments and its resources currently exist.

The absence of a targeted policy and regulatory framework provides adequate justification for maintaining the moratorium until such time as a safe, effective, and socially acceptable policy and regulatory framework are developed and implemented.

The sustainable use of Sea Country resources has been managed by Aboriginal people in the NT for millennia. As such, the NLC views conservation of the marine environment as being inclusive of cultural and heritage values, as recognised under the *Convention for Biological Diversity* (CBD)¹ and to which the *Environmental Protection of Biodiversity Conservation Act* responds (Articles 8(j) & 10(c))².

The NLC makes several overarching recommendations (presented below) related to the general comments provided above and in addition provides a number of specific recommendations in response to each of the Draft Report's key findings and conclusions.

Development of a Seabed Mining Policy Framework: Aboriginal Engagement Principle

Approximately 85% of the coastal and intertidal areas of the NT is inalienable Aboriginal freehold land under the *Aboriginal Land Rights (Northern Territory) Act (1976)* (Cth.), as confirmed by the Blue Mud Bay decision of the High Court in 2008. However, to date there has been limited involvement of, or attempts to engage, Traditional Owners of the Northern Territory coastal and marine areas in government policy-making process. For example this has not occurred during the formulation of the NT Coastal and Marine Management Strategy³ or during the production of the Draft Report.

In 2017 and again in 2018, in a joint submission, the NLC and Central Land Council (CLC) made a number of important recommendations in response to the Government's then proposed Environmental Regulatory Reforms. Many of these same recommendations, adapted here for seabed mining, remain outstanding:

- Notwithstanding the NLC's opposition to the lifting of the moratorium, the Department of Environment and Natural Resources (DENR) should undertake an extensive program of community consultation on seabed mining in accordance with the principle of Free, Prior and Informed Consent (FPIC) to assist with the development of a seabed mining policy and regulatory framework – this must be undertaken prior to any consideration being given to the lifting of the moratorium.
- These consultations should inform how a seabed mining policy and regulatory framework, considers and incorporates Aboriginal social, cultural and other environmental values and intra and inter-generational equity considerations.
- Consultation should be ongoing and include the establishment of an independent Steering Committee with indigenous representation that is empowered with oversight and advisory functions.

Similar recommendations to those provided above as presented in the joint Land Council's earlier submission remain unaddressed, and to date the NT Government's engagement with Land Councils and Aboriginal people in relation to marine management, environmental policy and regulatory reform has been inconsistent and sporadic.

The NT Government's draft GHG Offset Policy 2019⁴ identifies, as one of its defining principles that 'participation with communities and stakeholders is critical', noting the need to 'ensure effective and active participation of stakeholders in decision-making about offsets'. This principle should also be reflected in the development of the seabed mining policy, legislation and associated offsets framework.

We urge the NT Government to engage with Land Councils in a consistent and ongoing manner, and to work together with Land Councils and Traditional Owners in the development of all aspects of any seabed mining policy and regulatory framework, including the undertaking of coastal and marine baseline studies, coastal and marine planning, resource management, the establishment of governance structures, and in the case it is decided to lift the moratorium, the development of clear objectives, implementation guidelines, and ongoing monitoring, evaluation, compliance and reporting mechanisms.

This is essential given the extensive landholdings of Aboriginal people; the disproportionate impact that seabed mining could have on them and their country; the unique role of Traditional Owners and Aboriginal Rangers as both owners and land managers; and the potential for Aboriginal knowledge to guide and improve the design and implementation of seabed mining policy, planning, legislation and future possible management framework.

This consultation represents an opportunity to draw on the extensive Aboriginal knowledge related to the marine and coastal environments to better understand and protect both cultural and natural values, which in many cases are interconnected. The NLC recommends that any seabed mining policy framework includes the incorporation of Aboriginal knowledge in the environmental (including cultural) risk assessment process.

NLC Recommendations

1. The Northern Land Council firmly opposes seabed exploration and mining, and recommends that the moratorium over seabed mining remain in perpetuity.
2. That the NT EPA uses the extensive evidence contained in the Draft Report and supporting documents to provide a recommendation to the NT Government in relation to the status of the moratorium.
3. In the case the moratorium was lifted, prior to any seabed exploration or mining being authorised, the NT Government must demonstrate to the satisfaction of Traditional Owners and relevant Land Councils that any risks to environmental values (including social, cultural and economic aspects) can be properly assessed and avoided or safely mitigated and an effective and acceptable policy and regulatory framework is in place.
4. That prior to any seabed exploration or mining being authorised, the NT Government must ensure that the policy and regulatory framework includes the right for Traditional Owners to be consulted and to:
 - veto any seabed mining proposal; and
 - designate mining exclusion areas.
5. That prior to any seabed exploration or mining being authorised, the NT Government develop and implement a seabed mining policy and regulatory framework consistent with Appendix B. This framework, given most seabed mining, will occur on Aboriginal land has to include:
 - Traditional Owners interests of the coastal, nearshore and offshore marine areas of the Northern Territory, including Native Title Holders of sea country, through the relevant Land Councils; and
 - Incorporation of Aboriginal knowledge and sea management practices in the development and implementation of environmental (including cultural) risk assessment and management.

About the Northern Land Council

The NLC was established in 1973. Following the enactment of the *Aboriginal Land Rights (Northern Territory) Act 1976*, the NLC became an independent statutory authority responsible for assisting Aboriginal people in the northern region of the Northern Territory to acquire and manage their traditional lands and seas.

A key function of the NLC is to express the wishes and protect the rights and interests of traditional Aboriginal owners throughout its region.

The Land Rights Act combines concepts of traditional Aboriginal law and Australian property law and sets out the functions and responsibilities of the land councils. The NLC is also a Native Title Representative Body under the *Native Title Act 1993*.

The NLC represents more than 36,000 Aboriginal people. Within its jurisdiction, the NLC assists Traditional Owners by providing services in its key output areas of land, sea and water management; land acquisition; minerals and petroleum; community development; Aboriginal land trust administration; native title services; advocacy; information and policy advice. Relevant to this submission is a responsibility to protect the traditional rights and interests of Traditional Owners with interests over the area of the NLC, which is constituted by more than 210,000 square kilometres of the land mass of the Northern Territory and 85% of its coastline.

The NLC's vision is for a Territory in which the rights and responsibilities of every Traditional Aboriginal Owner are recognised and in which Aboriginal people benefit economically, socially and culturally from the secure possession of their lands, seas and intellectual property. Our mission is to assist Aboriginal people in the northern region of the Northern Territory to acquire and manage their traditional lands and seas, through strong leadership, advocacy, industry engagement and resource management.

Discussion & Recommendations

Issues that prompted the moratorium to be implemented remain unresolved

Recommendation 1: The Northern Land Council firmly opposes seabed exploration and mining, and recommends that the moratorium over seabed mining remain in perpetuity.

The Draft Report would be improved by the addition of recommendations. The body of the Draft Report and the supporting documents should be used to guide and inform any recommendations provided. An overarching recommendation as to whether the NT EPA is of the view that there are sufficient grounds for the NT Government to lift the moratorium or not should be included.

Recommendation 2: That the NT EPA uses the extensive evidence contained in the Draft Report and supporting documents to provide a recommendation to the NT Government in relation to the status of the moratorium.

The NLC has identified additional documents – refer to [Appendix A](#) – that we believe could be useful for the NT Government in deciding whether or not to maintain the moratorium and what the regulatory framework may need to include. The Australian Government’s Department of Agriculture, Water and Environment website has a Marine bioregional plan for the North Marine Region⁵ and Conservation value reports⁶ related to the *Environment Protection and Biodiversity Conservation Act 1999 (Cth.)* (EPBC Act) that appear to build on workshops and research undertaken in the NT. The NLC believes that these documents would prove useful to the NT EPA in revising and improving the Draft Report.

The Draft Report, despite noting threatened species, iconic fauna of high cultural value, species of commercial importance², does not then refer to this valuable source of information in any of its key findings or conclusions.

The species listed in Table 1 below, despite being listed under the EPBC Act and identified as priorities for the North marine region, do not appear in any of the Key findings or Conclusions; nor does any reference to the Marine bioregional plan for the North Marine Region (SEWP, 2012). It is our opinion that the Draft Report could be improved with inclusion of this readily available information.

² As identified in the supporting report by Smit et al (2018)(Box 1).

Box 1: Key fauna identified in the draft report (p.37) (Smit et al. 2018)

The fauna of the NT coastal waters includes:

- over 150 threatened, migratory and/or marine species listed under NT and/or Australian legislation (e.g. humpback whale, false killer whale, coastal dolphins, sea snakes, shorebirds, pipefish)
- iconic fauna of high cultural and/or social value (e.g. barramundi, dugong, marine turtles, saltwater crocodile, white-bellied sea-eagle)
- species of commercial importance (e.g. finfish, prawns, trepang, pearl oysters)
- over 1600 vertebrate species (e.g. shorebirds, waterbirds, mammals, reptiles, bony fish, sharks and rays)
- over 12 500 species of sessile and mobile invertebrates (e.g. jellyfish, sponges, corals, tube worms, nudibranchs, squid, clams, sea stars, crabs).

NLC Response in relation to *threatened species, iconic fauna of high cultural value*:

The NLC recommends that the final report be amended to better reflect the available information in relation to threatened species, iconic fauna of high cultural value (e.g. coastal dolphins and dugongs), threats and risks. In particular this information should be reflected in the key findings and conclusions and used to present recommendations to the NT Government in the ensuing Final Report.

Table 1: Conservation values of regional priority for the North Marine Region.³

	Conservation value	
1	Marine turtles <i>Flatback turtle</i> <i>Green turtle</i> <i>Hawksbill turtle</i> (EPBC Act listed as vulnerable, migratory and marine)	<i>Leatherback turtle</i> <i>Loggerhead turtle</i> <i>Olive ridley turtle</i> (EPBC Act listed as endangered, migratory and marine)
2	Inshore dolphins <i>Australian snubfin dolphin</i> <i>Indo-Pacific humpback dolphin</i> (EPBC Act listed as cetacean and migratory)	<i>Indo-Pacific bottlenose dolphin</i> (EPBC Act listed as cetacean and migratory [Arafura/Timor Sea populations])
3	Sawfishes and river sharks <i>Dwarf sawfish</i> <i>Freshwater sawfish</i> <i>Green sawfish</i> (EPBC Act listed as vulnerable)	<i>Northern river shark</i> (EPBC Act listed as endangered) <i>Spear-tooth shark</i> (EPBC Act listed as critically endangered)
4	Dugong (EPBC Act listed as migratory and marine)	
5	Sea snakes (EPBC Act listed as marine)	
6	Gulf of Carpentaria coastal zone (Key ecological feature)	

³ Source: SEWP, 2012.

Regulatory & Policy Framework

NT EPA Key finding and Conclusion 1: Regulatory & Policy Framework

Any seabed mining activity in the Northern Territory must occur within a transparent, robust regulatory and policy framework that promotes ecologically sustainable development and establishes clear expectations on industry. This framework should be supported by:

- the declaration of marine environment protection ‘no go’ areas for areas with high biodiversity, economic, recreational and/or cultural value, and*
- documenting the appropriate and acceptable standards for seabed mining practices and environmental management.*

NLC Response to NT EPA Key finding and Conclusion 1:

The NLC supports the establishment of a transparent and robust regulatory and policy framework that includes mining exclusion or ‘No-Go’ areas and promotes sustainable development. Any framework must be inclusive of leading practice participatory processes related to community consultation, approvals, and the collection, monitoring and reporting of all relevant data. The NLC recommends the NT EPA adopt the amendments provided in the text box below.

Recommendation 3: In the case the moratorium was lifted, prior to any seabed exploration or mining being authorised, the NT Government must demonstrate to the satisfaction of Traditional Owners and relevant Land Councils that any risks to environmental values (including social, cultural and economic aspects) can be properly assessed and avoided or safely mitigated and an effective and acceptable policy and regulatory framework is in place.

Suggested text for: Regulatory & Policy Framework

Any seabed mining activity in the Northern Territory [~~should not proceed without~~ ~~must occur within~~ an evidence-based], transparent, robust and participatory regulatory and policy framework [~~supported by legislation and mandatory guidelines~~] that promotes ecologically sustainable development and establishes clear expectations on industry. This framework should be supported by:

- [adequate baseline knowledge of cultural and environmental values and the on-going monitoring and reporting of all data related to the condition and health of these values.]
- the declaration of marine environment protection ‘no go’ areas for areas with high biodiversity, economic, recreational and/or cultural value, and
- the documentation and implementation of the appropriate and acceptable standards for seabed mining practices and environmental management.

The NLC also proposes that Aboriginal knowledge and Aboriginal land and sea management practices must be incorporated into all aspects of any seabed mining regulatory and policy framework.

Recommendation 4: That prior to any seabed exploration or mining being authorised, the NT Government must ensure that the policy and regulatory framework includes the right for Traditional Owners to be consulted and to:

- veto any seabed mining proposal; and
- designate mining exclusion areas.

Seabed mining and environmental impact assessment

NT EPA Key finding and Conclusion 2: 'Seabed mining activity trigger' under EPA Act 2019

The Northern Territory Government should consider declaring a 'seabed mining' activity trigger under the Environment Protection Act 2019 for all seabed exploration and mining activities so that referral to the NT EPA is required to determine whether environmental impact assessment is required.

NLC Response to NT EPA Key finding and Conclusion 2:

In the event the NTG lift the moratorium, the proposal that any seabed mining activity triggers a referral to the NT EPA to determine if an Environmental Impact Assessment (EIA) is required the NLC adds that the assessment process be guided by publically available and robust guidelines which include a requirement for information about how and why the NT EPA's decision and recommendations regarding the requirement (or not) for an EIA to be undertaken, to be made publically available.

Seabed mining activities categories

Based on the evidence in the Draft Report and the current absence of the AAPA's Report on cultural values in the intertidal and marine environment, it appears premature to claim that any development applications could be assigned to anything except the proposed Category 3: Unacceptable.

The NT EPA suggests that seabed mining activities can be broadly divided into three classes, each with a distinct risk classification. NLC believes that the concept of different risk categories is sound but given the long list of unresolved issues noted in the Draft EPA Report and your submission, it would be impossible to apply them. When knowledge gaps issues are addressed and a seabed mining policy and regulatory framework is developed and implemented, these risk categories could be revisited. If an when this occurs, the risk assessment process needs to include:

- a) an assessment process that is guided by robust and publically available guidelines which detail how and why the requirement for or against an EIA is determined; and,
- b) the assessment results and any related Ministerial or departmental approvals, including conditions are made publically available.

The EIA-related guidelines should clearly state how the precautionary principle is required to be applied in the assessment process. The Draft Report identifies issues related to the current lack of information about and knowledge of intertidal and marine ecosystems, their values (environmental, cultural and social) and associated problems with identifying the potential risks to these ecosystems and related values. This highlights the need for application of the precautionary principle in legislation and related policy, planning and management documents.

NT EPA Key finding and Conclusion 3: Seabed mining activities categories

Seabed mining activities can be broadly categorised into three classes, based on their potential for significant environmental impact: Manageable impacts – are likely in some relatively data-rich, low sensitivity locations. Potentially significant impacts may be effectively managed under current environmental impact assessment and regulatory arrangements resulting in acceptable proposals.

Uncertain impacts – are likely in some situations, based on either the impact of seabed mining or the condition/quality of the receiving environment. Potentially significant impacts may be effectively managed based on the extensive collection of new environmental information and knowledge prior to environmental impact assessment.

Unacceptable impacts – are likely in some situations where serious risks and high uncertainty remains and no amount of information or knowledge is likely to adequately address the residual impacts in a reasonable time and at a reasonable cost. The NT EPA considers these proposals are likely to be unacceptable and may trigger a recommendation for early refusal.

NLC Response to NT EPA Key finding and Conclusion 3:

The NLC recommends that the text presented in *Key finding and Conclusion 3* related to these mining categories be amended to be made consistent with the other findings and Conclusions presented in the Draft Report e.g. *Key finding and Conclusion 4*.

Baseline knowledge and understanding of ecosystem processes

NT EPA Key finding and Conclusion 4, supported by the reports provided with the Draft Report, would make it very difficult to apply the *Environmental Protection Act 2019* and associated Regulations to seabed mining. In particular, the NT EPA's responsibility to implement its statutory functions and duties, as spelt out in its 2020-22 Statement of Intent, would likely be compromised in relation to seabed mining by the lack of adequate environmental information.

In NLC's opinion the Draft Report and its key findings and conclusions do not provide satisfactory recommendations to the NT Government. Recommendations should be based on evidence contained in the Draft Report, supporting documents, case studies related to NT marine ecosystems flora and fauna (Appendix 4) and the additional information provided in this submission. The NLC's concerns about the Draft Report's failure to properly capture and utilise the evidence collected are described in Recommendation 2.

NT EPA Key finding and Conclusion 4: Environmental knowledge to inform risk assessment

Currently, the lack of adequate environmental information and knowledge about the existing condition of environmental values and the potential impacts from seabed mining is a major barrier to the robust environmental impact assessment, approval and appropriate conditioning of seabed mining in the Northern Territory.

There is difficulty in applying known management measures to poorly understood marine environments. This contributes to uncertainty about the effectiveness of management and mitigation measures.

It will be important to communicate to proponents the considerable information requirements necessary for robust environmental impact assessment, including adequate baseline data that encompasses the substantial natural, temporal and spatial variation in marine and coastal environments.

Seabed Mining Monitoring and Reporting

The NLC maintains our opposition to lifting the moratorium. However, should this occur, we support seabed mining approvals being subject to leading practice consultation, monitoring, evaluation, reporting and improvement processes and conditions.

NT EPA Key finding and Conclusion 6: Seabed mining monitoring and reporting
Should seabed mining be approved, relevant approvals should require environmental monitoring that informs regulation of proposal-specific management targets, as well as evidence-based understanding of environmental impacts to support future impact assessment and regulation of the industry. Data should be available to the public.

NLC Response to NT EPA Key finding and Conclusion 6:

The NLC recommends, given all the evidence suggests significant knowledge and policy gaps remain, that the opening words to Key finding and Conclusion 6 is amended to ensure it accurately reflects the status of the moratorium, ‘Subject to the identified issues being resolved and moratorium being lifted, any seabed mining approvals should require environmental monitoring...’.

To facilitate the collection of large and long-term datasets and the sharing of this data, where they don’t already exist leading practice guidelines for collecting environmental data on the seabed (e.g. researchers, Aboriginal sea country Rangers, or government agencies, mining proponents), should be developed and implemented. Given the size and scale of the required monitoring the NLC suggests that in designing the required environmental baseline sampling and monitoring program (criteria, methodology, etc.) issues, locations, ecosystems and species are assigned priorities and that Aboriginal people and relevant Land Councils are fully consulted and intimately involved throughout this process. The full cost of any environmental data collection related to seabed mining should be borne Industry under a user pays or cost recovery model.

The NLC recommends that NT EPA work with Industry, DEPWS, Land Councils, researchers and other relevant stakeholders to design and implement an environmental baseline data collection and monitoring program to inform the EIA and approval process and regulation of any seabed disturbance or extraction activity.

Adaptive management

NT EPA Key finding and Conclusion 7: Adaptive management

The NT EPA considers that the use of adaptive management would be highly problematic in managing the high levels of uncertainty and risk associated with the mitigation of potentially significant environmental impacts from seabed mining proposals. Any effective use of adaptive management would be limited in its application to clearly defined issues.

NLC Response to NT EPA Key finding and Conclusion 7:

The NLC supports the NT EPA's conclusion that, given the high levels of uncertainty, commencing seabed mining and applying an adaptive management approach, cannot occur while the potential risks are not fully understood. Only when the NT Government has a complete understanding of the values and functions of the marine environment, and the regulatory and policy tools necessary to protect these environments and associated values, would it be appropriate to apply an adaptive management approach to the regulation of seabed mining. In the interim the precautionary principle should be applied.

Environmental Offsets

NT EPA Key finding and Conclusion 8: Environmental Offsets

The NT EPA considers that environmental offsets cannot currently be readily or easily applied to seabed mining proposals in NT coastal waters. The collection of pre-impact baseline data does not qualify as an environmental offset.

NLC Response to NT EPA Key finding and Conclusion 8:

That environmental offsets not be considered for application in relation to seabed mining until the issues related to understanding the marine environment and the risks associated with seabed mining have been satisfactorily dealt with and a robust regulatory framework is in place.

Mine closure and rehabilitation

The NLC agrees with the statement presented in the Draft Report in relation to mine closure and rehabilitation, to the effect that *rehabilitation is unlikely to be feasible*, but given the uncertainty noted in the Draft Report, we believe it is premature to identify a time-limit on how long a project needs to run before rehabilitation is determined to be unlikely to succeed. Mine rehabilitation in terrestrial systems and land-based aquatic or semi-aquatic environments (e.g.

Rum Jungle) have demonstrated how difficult the rehabilitation of areas subject to mining activity can be. Extreme caution in relation to the marine, intertidal and coastal environments, which are less well understood, is warranted.

The combination of limited knowledge and known extreme to high risks needs to be reflected in the EIA assessment process and any supporting guidelines. For example, where there is an extreme or high risk of impacts and mitigation or rehabilitation is unlikely to prove successful, it must be made abundantly clear that an approval will not be given. While not the focus of the Draft Report, but an important consideration in the overall EIA process, cultural values, if impacted by seabed mining may not be amenable to rehabilitation; once disturbed or damaged they may be lost forever. Any seabed mining policy and regulatory process needs to be reflected in the advice provided and recommendations presented in the Draft Report.

NT EPA Key finding and Conclusion 9: Closure & Rehabilitation

Closure and rehabilitation are important considerations for the assessment, approval and management of seabed mining. In the absence of specific guidance, seabed mine closure and rehabilitation should follow the best practice principles of the International Marine Minerals Society Code for Environmental Management of Marine Mining, the International Council on Mining and Metals for Mine Closure, and the WA Guidelines for Preparing Mine Closure Plans.

Requirements to achieve environmental protection outcomes must include: extensive baseline information, appropriate financial assurance, progressive rehabilitation, agreed rehabilitation objectives, completion criteria and monitoring of rehabilitation success. These requirements should be captured in specific closure and rehabilitation criteria and guidance developed by government with substantial industry and stakeholder input.

Effective rehabilitation and biological recovery is unlikely to be feasible where seabed mining removes or alters extensive areas of the seafloor or for seabed mining proposals greater than five years duration.

NLC Response to NT EPA Key finding and Conclusion 9:

The NLC supports the conclusion that effective rehabilitation is unlikely to be feasible and that rehabilitation of cultural values, if disturbed, is unlikely to be possible.

Independent expert advisory group

The NLC believes that the creation and application of an independent advisory group would be necessary not only for the regulation of seabed mining but for the EIA process in general. The membership of this group could be varied depending on the project(s) being assessed but should maintain a core membership reflecting skills, experience and stakeholders likely to be impacted by any proposed development projects. For any proposed mining, including seabed mining, Aboriginal people and their representatives must play a lead role in the provision of advice. The NLC supports the NT EPA's proposal that costs related to this expert advisory group should be in line with the 'user pays' principle.

NT EPA Key finding and Conclusion 10: Independent expert group

Independent expert groups can provide valuable advice to regulators and industry during the planning, assessment, operational and rehabilitation stages of seabed mining projects, should seabed mining proceed in the Northern Territory beyond a limited number of small-scale operations.

The cost of funding an expert advisory group would appropriately lie with the proponent with its scope and membership determined by the regulator in line with the 'user pays' principle.

NLC Response to NT EPA Key finding and Conclusion 10:

The NLC supports the creation of an independent expert advisory group or panel with relevant skills and experience and that is representative of Aboriginal interests, and includes other key stakeholders and experts for Environment Impact Assessment process in general.

NT EPA regulatory framework

Consistent with our comments in [Recommendation 2](#), *Key finding and Conclusion 11* hints at, but in our opinion does not clearly identify, action(s) and time-lines needed to address the concerns flagged both in the Draft Report and in our submission related to transparency, meaningful engagement prior to approval, time to allow feedback, improving community, non-government organisations and relevant experts 'trust' in relation to the development approval process.

NT EPA Key finding and Conclusion 11: EPA regulatory framework

The powers afforded by the Environment Protection Act 2019 to the Northern Territory Government and the NT EPA (section 6.1) provide a strong framework for community involvement in the environmental impact assessment and approvals process and, ultimately, environment protection.

Transparent, meaningful community engagement and consultation should commence early in project planning prior to the impact assessment and approvals process, and extend to project implementation and closure.

The NT EPA conducts ongoing community consultation and engagement on policy and technical guidance, but there is still much to be done to address community concerns and strengthen community involvement and trust.

Further investigation of learnings from the Northern Territory (Hydraulic Fracturing Inquiry), national (NOPSEMA) and international (NZ and BMAPA) experiences will be valuable to guide the Northern Territory Government's position, implementation and communication pathways.

The NLC agrees that the Hydraulic Fracturing Inquiry provides a useful and relevant conceptual framework including, proposed legislative and policy requirements that should be developed and implemented before any thought is given to allowing seabed mining to proceed. The knowledge gaps in relation to baseline data for environmental and cultural values are very

similar to those identified in the Hydraulic Fracturing Inquiry. That said however, the unique nature of the combination of technical challenges related to available technology, untested mining methodologies, extreme (stochastic) weather events, and environmental sensitivities, including climate change predictions and the ability for undissolved sediment to migrate off lease due to the interconnectedness of the marine environment, in the NLC's opinion present an unacceptable level of risk, and combined create an unsurmountable obstacle to effective regulation of seabed mining in the NT.

NLC Response to NT EPA Key finding and Conclusion 11:

The NLC recommends that clear, actions and timeframes *are included* in relation to each of the findings and conclusions stated.

Legal framework for seabed mining

Appendix 3 in the Draft NT EPA Report – *Legal framework and seabed mining* (2017)⁷ – provided a detailed review of the current legal framework for seabed mining in the NT in 2017. The 2017 review stated:

The review of the existing legal framework identifies that while many elements of the existing framework are applicable to seabed mining, neither mining nor environmental legislation specifically accounts for seabed mining. Further, where legislation can be said to apply, in many cases additional measures and reforms will be required in order to effectively and appropriately manage the impacts associated with seabed mining activities.

Specific discussions within this document identify key areas that will require additional policy consideration and potentially regulatory reforms. These can be summarised as:

- *Amendments to the titling system under the Mineral Titles Act to tailor specific types of titles to the seabed mining process for different substance, to ensure that all relevant stakeholders are consulted during the titling process, and to limit requirements for the construction and operation of marine structures and facilities (e.g. ports) where existing facilities can be used.*
- *Clarification of the intended operation of the Mining Management Act and other legislation managing wastes and pollution (including the Water Act and Waste Management and Pollution Control Act) as both these latter Acts are only excluded where wastes are confined within mining sites – something which is impossible in the context of underwater pollution given the tidal movement of water.*
- *Clarification of the intended operation of the Mining Management Act and other legislation that may manage impacts in the marine environment, such as the Fisheries Act and Territory Parks and Wildlife Conservation Act to ensure that activities that may be an offence under other legislation may not be inadvertently authorised.*
- *Review of policy and processes associated with the management of mining activities, the majority of which have been developed in terrestrial environments (for example security calculations), to ensure that appropriate and effective controls are placed on seabed mining activities.*

It is unclear, based on the eleven *NT EPA Key findings and Conclusions* presented in the Draft Report, whether all of the issues listed above, related to key areas of regulatory reform, have been resolved via the implementation of the *Environmental Protection Act 2019* and the associated Regulations.

For example Appendix 3 states, in relation to the *Waste Management and Pollution Control Act* (WMPC Act):

Government likely needs to develop a policy position as to what if any aspects of seabed mining should be subject to the WMPC Act. In this regard:

- *For the purposes of regulating contaminants and wastes from mining activities, there are obvious practical difficulties identifying whether wastes and contaminants disposed of in the marine environment are 'confined' to an area due to the very nature of marine environments and tidal movements.*
- *The effects of seabed mining activities in terms of pollution of water and will be significantly different in the marine environment than the effects of mining on land. This calls into question whether the WMPC Act provides appropriately for seabed mining, even though ostensibly it applies to coastal waters. For example, it may not be intended that an operator is prohibited from allowing sediment affected water released during dredging to travel beyond the mining site, where the act of dredging itself and associated environmental impacts are addressed under the MM Act.*
- *The WMPC Act may contain assumptions based on land based activities. For example, having regard to the ordinary usage of the term and the definition given in the WMPC Act,²⁶⁴ it is not clear how to delineate 'premises' in an area of ocean.*

This raises questions as to whether the NT Government has developed a policy position on this aspect of seabed mining management in relation to the WMPC Act and/or other relevant legislation, as identified in Appendix 3.

Clarification is sought on the extent to which NT Government and NT EPA identified and remedied any gaps that remain in relation to the legal framework necessary to safely, effectively and appropriately assess (including consult), approve, and regulate seabed mining.

NLC Response to *the legal framework for seabed mining*:

The NLC recommends that a key finding is added to the Report to identify regulatory gaps and clarify suitability in relation to the NT legal framework's capacity to safely and effectively regulate seabed mining.

Recommendation 5: That prior to any seabed exploration or mining being authorised, the NT Government develop and implement a seabed mining policy and regulatory framework consistent with Appendix B. This framework, given most seabed mining, will occur on aboriginal land must include:

- Traditional Owners interests of the coastal, nearshore and offshore marine areas of the Northern Territory, including Native Title Holders of sea country, through the relevant Land Councils; and
- Incorporation of Aboriginal knowledge and sea management practices in the development and implementation of environmental (including cultural) risk assessment and management.

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5. Department of Sustainability, Environment, Water, Population and Communities (SEWPC). *Marine bioregional plan for the North Marine Region*. 2012.
6. Commonwealth of Australia. *Commonwealth marine environment report card - Supporting the marine bioregional plan for the North Marine Region*. 53 <https://www.environment.gov.au/system/files/pages/0fcb6106-b4e3-4f9f-8d06-f6f94bea196b/files/north-report-card-commonwealth.pdf> (2012).
7. DENR & SFNT. *Legal framework and seabed mining*. 49 (2017).
8. Dovers, S. & Hussey, K. *Environment & Sustainability: A policy handbook*. (The Federation press, 2013).

Appendix A: Suggested additional information

Table 4.1: Conservation values of regional priority for the North Marine Region. (Source: Marine bioregional plan for the North Marine Region (2012, p.30)⁵.

	Conservation value	Rationale	Strategies and actions identified to address the priority (Section 4.2)
1	<p>Marine turtles</p> <p><i>Flatback turtle</i></p> <p><i>Green turtle</i></p> <p><i>Hawksbill turtle</i></p> <p>(EPBC Act listed as vulnerable, migratory and marine)</p> <p><i>Leatherback turtle</i></p> <p><i>Loggerhead turtle</i></p> <p><i>Olive ridley turtle</i></p> <p>(EPBC Act listed as endangered, migratory and marine)</p>	<p>Six of the seven species of marine turtle in the world are known to inhabit the North Marine Region. All six species are listed as threatened under the EPBC Act, and have important breeding, nesting and/or feeding areas in or adjacent to the North Marine Region. In particular, the region supports globally significant populations of green, hawksbill and flatback turtles.</p> <p>In the North Marine Region, the pressures assessed as <i>of concern</i> for marine turtles are invasive species and marine debris. The pressures assessed as <i>of potential concern</i> for marine turtles are sea level rise, changes in sea temperature, bycatch (commercial fishing), extraction of living resources (Indigenous harvest), noise pollution (seismic exploration) and light pollution (offshore activities).</p> <p>The conservation status of marine turtles, the significance of the North Marine Region to their recovery and the pressures facing them in the region make the species group a priority for conservation effort.</p>	<p>Strategy A, Actions 2, 3 and 6</p> <p>Strategy B, Action 1</p> <p>Strategy C, Action 3</p> <p>Strategy D, Action 1 and 4</p> <p>Strategy E, Actions 1 and 3</p> <p>Strategy G, Action 1</p>

	Conservation value	Rationale	Strategies and actions identified to address the priority (Section 4.2)
2	Inshore dolphins <i>Australian snubfin dolphin</i> <i>Indo-Pacific humpback dolphin</i> (EPBC Act listed as cetacean and migratory) <i>Indo-Pacific bottlenose dolphin</i> (EPBC Act listed as cetacean and migratory [Arafura/Timor Sea populations])	<p>The Australian snubfin dolphin, Indo-Pacific humpback dolphin and Indo-Pacific bottlenose dolphin are known to occur in the North Marine Region. All three species are listed as migratory and cetacean under the EPBC Act. These species rely on the waters of the North Marine Region and adjacent coastal areas for breeding and foraging.</p> <p>The Australian snubfin dolphin and Indo-Pacific humpback dolphin occur mostly in shallow waters up to 10 km from the coast and 20 km from the nearest river mouth. Indo-Pacific bottlenose dolphins tend to occur in deeper, more open coastal waters, primarily in continental shelf waters (up to 200 m deep), including coastal areas around oceanic islands.</p> <p>The species' vulnerability to pressures is intensified due to their life history characteristics (they are long-lived, females take many years to reach sexual maturity and they have a low rate of reproduction) and their small and fragmented populations. In the North Marine Region, the pressure assessed as <i>of concern</i> for inshore dolphins is physical habitat modification (onshore construction). The pressures assessed as <i>of potential concern</i> for inshore dolphins are bycatch (commercial fishing), marine debris, noise pollution (onshore and offshore construction; shipping), changes in sea temperature, ocean acidification, sea level rise (Australian snubfin dolphin only), chemical pollution (onshore and offshore mining) and physical habitat modification (dredging and offshore construction).</p> <p>The conservation status of inshore dolphins, the significance of the North Marine Region to their survival (especially given their limited and fragmented ranges) and the pressures facing them in the region make the species a priority for conservation effort.</p>	Strategy A, Actions 3 and 6 Strategy B, Action 1 Strategy C, Action 3 Strategy D, Action 1 and 4 Strategy E, Action 3
3	Sawfishes and river sharks <i>Dwarf sawfish</i> <i>Freshwater sawfish</i> <i>Green sawfish</i> (EPBC Act listed as vulnerable) <i>Northern river shark</i> (EPBC Act listed as endangered) <i>Speartooth</i>	<p>Five species of sawfish and river shark listed under the EPBC Act are known to occur in the North Marine Region. While relatively little is known about the distribution and abundance of sawfishes and river sharks in northern Australian waters, the North Marine Region is considered an important area for the species group as the region and adjacent waters contain nationally and globally significant populations of sawfish and river shark species.</p> <p>Biologically, sawfishes and river sharks are characterised by their late age at maturity, slow growth rate, low fecundity, longevity and low rate of natural mortality, all of which result in low rates of reproduction and capacity to withstand human-induced pressures. In the North Marine Region, the pressures assessed as <i>of concern</i> for sawfishes and river sharks are bycatch (commercial fishing; recreational fishing), extraction of living resources (illegal, unreported and unregulated fishing) and changes in hydrological regimes. The pressures assessed as <i>of potential concern</i> for sawfishes and river sharks are sea level rise, changes in sea temperature, marine debris, extraction of living resources</p>	Strategy A, Actions 2, 3 and 6 Strategy B, Action 1 Strategy D, Action 1 Strategy E, Actions 1, 2 and 3

	Conservation value	Rationale	Strategies and actions identified to address the priority (Section 4.2)
	<i>shark</i> (EPBC Act listed as critically endangered)	(commercial fishing [freshwater sawfish only]; Indigenous harvest) and chemical pollution (onshore and offshore mining). Research into the distribution, population size, population trends and factors influencing recovery of these species has been undertaken but significant gaps in knowledge on sawfish and river shark species in northern Australia remain. These knowledge gaps, along with the conservation status of sawfishes and river sharks, the significance of the North Marine Region to their recovery, and the pressures facing them in the region, make the species group a priority for conservation effort.	
4	Dugong (EPBC Act listed as migratory and marine)	A significant proportion of the world's dugongs occur in the North Marine Region and adjacent coastal waters. Dugongs are vulnerable to human-induced impacts as a result of their biological characteristics, such as their longevity (up to 70 years), long gestation (12–14 months), litter sizes of one, long intervals between births (up to 2.5 years) and late age at sexual maturity (6–17 years). In the North Marine Region, the pressures assessed as <i>of potential concern</i> for dugong are bycatch (commercial fishing), extraction of living resources (Indigenous harvest; illegal, unreported and unregulated fishing), marine debris, sea level rise, changes in sea temperature and physical habitat modification (storm events). The conservation status of dugongs, the significance of the North Marine Region to their survival and the pressures facing them in the region make the species a priority for conservation effort.	Strategy A, Actions 3 and 6 Strategy B, Action 1 Strategy D, Action 1 Strategy E, Actions 1 and 3 Strategy G, Action 1
5	Sea snakes (EPBC Act listed as marine)	The North Marine Region is an important area for sea snakes. Nineteen species are known to occur in the region; all are listed as marine species under the EPBC Act. Sea snakes are vulnerable to human-induced pressures because of their slow growth rates and low fecundity. In the North Marine Region, the pressure assessed as <i>of concern</i> for sea snakes is bycatch (commercial fishing). The pressures assessed as <i>of potential concern</i> for sea snakes are physical habitat modification (dredging), changes in sea temperature and ocean acidification. The conservation status of sea snakes, the significance of the North Marine Region to their survival and the pressures facing them in the region make the species a priority for conservation effort.	Strategy A, Actions 3 and 6 Strategy B, Action 1 Strategy D, Action 1
6	Gulf of Carpentaria coastal zone (Key ecological feature)	The Gulf of Carpentaria coastal zone is a key ecological feature of the North Marine Region due to its productivity, presence of aggregations of marine life (including several endemic species) and comparatively high biodiversity. Nutrient inflow from rivers leads to higher productivity and more diverse and abundant biota in this area than elsewhere in the North Marine Region.	Strategy A, Actions 3 and 4 Strategy B, Action 1 Strategy C, Action 3 Strategy F, Action 1

	Conservation value	Rationale	Strategies and actions identified to address the priority (Section 4.2)
		<p>In the North Marine Region, the pressure assessed as <i>of concern</i> for the Gulf of Carpentaria coastal zone is marine debris. The pressures assessed as <i>of potential concern</i> for the Gulf of Carpentaria coastal zone are physical habitat modification (offshore construction), extraction of living resources (illegal, unreported and unregulated fishing), changes in hydrological regimes, sea level rise, changes in sea temperature, ocean acidification and physical habitat modification (storm events).</p> <p>The Gulf of Carpentaria coastal zone is a priority for conservation efforts because it is a key ecological feature that supports diverse marine life, that is facing pressures assessed as <i>of concern</i> and <i>of potential concern</i>, and about which there is a lack of data.</p>	

Additional information is available at:

<https://www.environment.gov.au/topics/marine/marine-bioregional-plans/north>

Appendix B: Key sustainable development policy elements

Policy Element	Policy Action Item
Problem-framing	1. Discussion and identification of relevant cultural, social and environmental issues
	2. Identification and monitoring of stakeholder and public concerns
	3. Monitoring and evaluation of natural and human systems and their interactions
	4. Identification of problematic environmental or human changes, or degradation
	5. Isolation of proximate and underlying causes of degradation
	6. Assessment of risk, uncertainty and ignorance
	7. Definition (framing and scaling) of policy problems
Policy-framing	8. Development of guiding policy principles
	9. Construction of general policy statement (avowal of intent)
	10. Definition of measurable policy goals
Policy implementation	11. Selection of policy instruments/ options
	12. Planning of implementation
	13. Planning of communication, education and information strategies
	14. Provision of statutory, institutional and resourcing requirements
	15. Establishment of enforcement / compliance mechanisms
	16. Establishment of policy monitoring mechanisms
	17. Ongoing policy monitoring and routine data capture
	18. Mandated evaluation and review process
	19. Extension, adaptation or cessation of policy and/or goals
In policy processes	20. Policy coordination and integration (across and within policy fields)
	21. Public participation and stakeholder involvement
	22. Transparency, accountability and open access
	23. Adequate communication mechanisms (multi-directional, democratically structured)
Institutional arrangements	24. Persistence over time (long-term)
	25. Purposefulness via mandate and goals (enforceable and well directed)
	26. Information-richness and sensitivity, including gathering, use and ownership
	27. Inclusiveness in policy formulation and implementation
	28. Flexibility, through evaluation, experimentation and learning

Source: Dovers, S. & Hussey, K. *Environment & Sustainability: A policy handbook*. (The Federation press, 2013)⁸.