



NORTHERN TERRITORY CATTLEMEN'S ASSOCIATION



NTCA Submission

to

*The Scientific Inquiry into Hydraulic Fracturing
in the Northern Territory – Draft Final Report*

Date: 25th January 2018

*This page is left intentionally blank
(delete page if printing one-sided)*



Table of Contents

1. INTRODUCTION-----	1
2. FOREWORD-----	1
3. RESPONSE TO RECOMMENDATIONS-----	2
SHALE GAS EXTRACTION AND DEVELOPMENT -----	2
Recommendation 5.1-----	2
Recommendation 5.2-----	2
Recommendation 5.3-----	2
Recommendation 5.4-----	3
Recommendation 5.5-----	3
Recommendation 5.6-----	3
Recommendation 5.7-----	3
Recommendation 5.8-----	4
WATER-----	4
Recommendation 7.1-----	4
Recommendation 7.2-----	4
Recommendation 7.3-----	4
Recommendation 7.4-----	4
Recommendation 7.5-----	5
Recommendation 7.6-----	5
Recommendation 7.7-----	5
Recommendation 7.8-----	6
Recommendation 7.9-----	6
Recommendation 7.10-----	7
Recommendation 7.11-----	7
Recommendation 7.12-----	7
Recommendation 7.13-----	8
Recommendation 7.14-----	8
Recommendation 7.15-----	8
Recommendation 7.16-----	8
Recommendation 7.17-----	9
Recommendation 7.18-----	9
Recommendation 7.19-----	9
LAND -----	9



Recommendation 8.1	9
Recommendation 8.2	10
Recommendation 8.3	10
Recommendation 8.4	10
Recommendation 8.5	11
Recommendation 8.6	11
Recommendation 8.7	11
Recommendation 8.8	12
Recommendation 8.9	12
Recommendation 8.10	12
Recommendation 8.11	12
Recommendation 8.12	13
Recommendation 8.13	13
Recommendation 8.14	13
Recommendation 8.15	13
Recommendation 8.16	14
GREENHOUSE GAS EMISSIONS	14
Recommendation 9.1	14
Recommendation 9.2	14
Recommendation 9.3	14
Recommendation 9.4	15
Recommendation 9.5	15
Recommendation 9.6	15
Recommendation 9.7	15
PUBLIC HEALTH	15
Recommendation 10.1	15
Recommendation 10.2	16
Recommendation 10.3	16
ABORIGINAL PEOPLE AND THEIR CULTURE	17
Recommendation 11.1	17
Recommendation 11.2	17
Recommendation 11.3	17
Recommendation 11.4	17
Recommendation 11.5	18
Recommendation 11.6	18



Recommendation 11.7	18
Recommendation 11.8	18
SOCIAL IMPACTS	19
Recommendation 12.1	19
Recommendation 12.2	19
Recommendation 12.3	19
Recommendation 12.4	19
Recommendation 12.5	19
Recommendation 12.6	20
Recommendation 12.7	20
Recommendation 12.8	20
Recommendation 12.9	20
Recommendation 12.10	21
Recommendation 12.11	21
Recommendation 12.12	21
Recommendation 12.13	22
Recommendation 12.14	22
Recommendation 12.15	22
Recommendation 12.16	22
ECONOMIC IMPACTS	23
Recommendation 13.1	23
Recommendation 13.2	23
Recommendation 13.3	23
Recommendation 13.4	23
Recommendation 13.5	24
Recommendation 13.6	24
Recommendation 13.7	24
Recommendation 13.8	24
Recommendation 13.9	24
Recommendation 13.10	25
REGULATORY REFORM	25
Recommendation 14.1	25
Recommendation 14.2	25
Recommendation 14.3	25
Recommendation 14.4	26



Recommendation 14.5	26
Recommendation 14.6	27
Recommendation 14.7	27
Recommendation 14.8	27
Recommendation 14.9	27
Recommendation 14.10	28
Recommendation 14.11	28
Recommendation 14.12	28
Recommendation 14.13	29
Recommendation 14.14	29
Recommendation 14.15	29
Recommendation 14.16	29
Recommendation 14.17	29
Recommendation 14.18	30
Recommendation 14.19	30
Recommendation 14.20	30
Recommendation 14.21	30
Recommendation 14.22	30
Recommendation 14.23	31
Recommendation 14.24	31
Recommendation 14.25	31
Recommendation 14.26	31
Recommendation 14.27	32
Recommendation 14.28	32
Recommendation 14.29	32
Recommendation 14.30	32
Recommendation 14.31	32
Recommendation 14.32	33
STRATEGIC REGIONAL ENVIRONMENTAL AND BASELINE ASSESSMENT	33
Recommendation 15.1	33
ADDITIONAL RECOMMENDATIONS	33
APPENDIX 1. SUMMARY OF RECOMMENDATIONS	35



1. Introduction

The NTCA represents Northern Territory cattle producers, land managers and businesses in a national and international food supply chain. The Northern Territory cattle production sector is a renewable industry utilising land, water, air and sunlight to produce food for consumers in Australia and overseas.

Our members, representing over 90% of the NT cattle herd, hold a diverse range of views in relation to hydraulic fracturing, from those who support the increased development it will bring for most Australians, to those who feel the risks to our environment and enterprises far outweigh the potential benefits.

Following extensive stakeholder consultation, the NTCA has considered a range of views in developing the following position, which best represents the needs of our members.

It is important to note that the NTCA speaks for the cattlemen and women of the Northern Territory. Our mission is to protect and enhance the interests of our members. Sustainability is more than a buzz-word to the people of our industry. It is the bedrock of our existence and continuing contribution to the NT community and economy.

To reach this position, the NTCA Board formed a Petroleum Exploration Sub-Committee, which studied the Panel's recommendations in detail, and made the following recommendations to the NTCA Board, which were subsequently adopted.

2. Foreword

One fundamental oversight of the Panel's recommendations is the failure to acknowledge and therefore espouse within the recommendations of the *Draft Final Report* is the exclusive rights to use the land for grazing purposes by pastoralists on Perpetual Pastoral Lease (PPL) or Pastoral Lease (PL) land in the Northern Territory. None of the recommendations adequately acknowledge the rights of pastoralists to use the land exclusively, and therefore fail to enshrine protection of such rights.

Some of the recommendations are to the detriment of this fundamental right, and if adopted, would diminish the rights of pastoralists to use their land exclusively for grazing, to the detriment of the value of the land tenure upon which the pastoral industry currently operates.



3. Response to Recommendations

SHALE GAS EXTRACTION AND DEVELOPMENT

Recommendation 5.1

That the Government mandate a code of practice setting out minimum requirements for the abandonment of onshore shale gas wells in the NT. The code must be enforceable and include a requirement that:

- *wells undergo pressure and cement integrity tests prior to abandonment, with any identified defects to be repaired prior to releasing the well for decommissioning; and*
- *testing must be conducted to confirm that the plugs have been properly set in the well.*

NTCA supports this recommendation.

Recommendation 5.2

That the Government mandate a program for the ongoing monitoring of abandoned shale gas wells in the NT. The program must include the ongoing monitoring of water quality by bores installed adjacent to the well and the results of such monitoring to be published in real-time.

NTCA supports this recommendation.

Recommendation 5.3

That in consultation with industry and other stakeholders, the Government develop and mandate an enforceable code of practice setting out the minimum requirements that must be met to ensure the integrity of onshore shale gas wells in the NT. This code must require that:

- *all onshore shale gas wells (including exploration wells constructed for the purposes of production testing) be constructed to at least a Category 9 (or equivalent) standard, with cementing extending up to at least the shallowest problematic hydrocarbon-bearing, organic carbon rich or saline aquifer zone;*
- *all wells be fully tested for integrity before and after hydraulic fracturing and the results be independently certified, with the immediate remediation of identified issues required;*
- *an ongoing program of integrity testing be established for each well during its operational life. For example, every two years initially for a period of 10 years and then at five-yearly intervals thereafter to ensure that if any issues develop they are detected early and remediated; and*
- *the results of all well integrity testing programs and any remedial actions undertaken be publicly reported.*

NTCA supports this recommendation.



Recommendation 5.4

That gas companies be required to develop and implement a well integrity management system for each well in compliance with ISO 16530-1:2017. That each well must have an approved well management plan in place that contains, at a minimum, the following elements:

- *consideration of well integrity management across the well lifecycle;*
- *a well integrity risk management process that documents how well integrity hazards are identified and risks assessed;*
- *a well barrier plan containing well barrier performance standards, with specific reference to protection measures for beneficial use aquifers;*
- *a process for periodically verifying well barrier integrity through the operational life of the well and immediately prior to abandonment, and for reporting to the regulator the findings from integrity assessments;*
- *characterisation data for aquifers, saline water zones, and gas bearing zones in the formations intersected during drilling; and*
- *monitoring methods to be used to detect migration of methane along the outside of the casing.*

NTCA supports this recommendation.

Recommendation 5.5

That the composition (inorganics, organics and NORMs) of flowback fluids, in addition to hydraulic fracturing fluids, be made publicly available.

NTCA supports this recommendation.

Recommendation 5.6

That in consultation with industry and the community, the Government develop a wastewater management framework for any onshore shale gas industry. Consideration must be given to the likely volumes and nature of wastewaters that will be produced by the industry during the exploration and production phases. That the absence of any treatment and disposal facilities in the NT for wastewater and brines produced by the industry be addressed as a matter of priority.

NTCA supports this recommendation.

Recommendation 5.7

That in consultation with industry and the community specific guidance be implemented by the Government, drawing on protocols and procedures developed in other jurisdictions, for the characterisation, segregation, potential reuse and management of solid wastes produced by the shale gas industry.



NTCA supports this recommendation.

Recommendation 5.8

That to minimise the risk of occurrence of felt seismic events during hydraulic fracturing operations, a traffic light system for measured seismic intensity, similar to that in place in the UK, be implemented.

NTCA supports this recommendation.

WATER

Recommendation 7.1

That before any production licence is granted to extract onshore shale gas, the Water Act be amended to require gas companies to obtain water extraction licences under that Act. That the Government introduce a charge on water in the NT for all onshore shale gas activities.

NTCA supports this recommendation.

Recommendation 7.2

That the Government request the Australian Government to amend the EPBC Act to apply the 'water trigger' to all onshore shale gas development.

NTCA supports this recommendation.

Recommendation 7.3

That the Government develop specific guidelines for human and environmental risk assessments for all onshore shale gas developments consistent with the National Chemicals Risk Assessment framework, including the national guidance manual for human and environmental risk assessment for chemicals associated with CSG extraction.

NTCA supports this recommendation.

Recommendation 7.4

That a strategic regional environmental and baseline assessment (SREBA), including a regional groundwater model, be developed and undertaken for any prospective shale gas basin before any



production licences are granted for shale gas activities in that basin, commencing with the Beetaloo Sub-basin.

NTCA strongly supports this recommendation.

Recommendation 7.5

That the use of all surface water resources for all onshore unconventional shale gas hydraulic fracturing in the NT be prohibited.

NTCA Amendment: change to read “That the use of all surface natural water resources...”.

Capturing overflow water, if agreeable to the landholder, should be permitted. This will allow the landholder to make use of any redundant dam infrastructure constructed by the gas companies if desired. This infrastructure will be used for capture of overland water flow, and not for use in handling, storing or treating contaminated water.

Recommendation 7.6

That in relation to the Beetaloo Sub-basin:

- *the Daly-Roper WCD be extended south to include all the Beetaloo Sub-basin;*
- *a separate WAP be developed for the northern and southern regions of the Beetaloo Sub-basin;*
- *the new northern Basin WAP provide for a water allocation rule that restricts the consumptive use to less than that which can be sustainably extracted without having adverse impacts on other users and the environment; and*
- *the southern Basin WAP prohibits water extraction for shale gas production until the nature and extent of the groundwater resource and recharge rates in that area is quantified. That in relation to other shale gas basins with similar or greater rainfall than the Beetaloo Sub-basin, WCDs be declared and WAPs be developed to specify sustainable groundwater extraction rates for shale gas production that will not have adverse impacts on existing users and the environment. That in relation to other potential shale gas basins in semi-arid and arid regions, all groundwater extraction for any shale gas production be prohibited until there is sufficient information to demonstrate that it will have no adverse impacts on existing users and the environment.*

NTCA supports this recommendation.

Recommendation 7.7

That the following measures be mandated to ensure that any onshore shale gas development does not cause unacceptable local drawdown of aquifers:



- *the drilling of onshore shale gas petroleum wells within 1 km of existing or proposed groundwater bores be prohibited unless hydrogeological investigations and groundwater modelling indicate that a different distance is appropriate, or if the landholder agrees with a closer distance;*
- *additional information on the aquifer characteristics is obtained as a result of the regional environmental and baseline assessment recommended in Section 7.4.1;*
- *relevant WAPs include provisions that adequately control both the rate and volume of water extraction by the gas companies;*
- *gas companies be required, at their expense, to monitor drawdown in local water supply bores; and*
- *companies be required to 'make good' any problems if this drawdown is found to be excessive (that is greater than 1 m).*

NTCA Amendment: include bore flow rate as an additional measure of impact to ensure onshore shale gas industry does not cause unacceptable aquifer drawdown through the reduction of flow rates. Aquifer levels rise and fall naturally, so including flow rate of local bores will add another safeguard to compliment the above-mentioned measurable. Bore flow rates are to be included in baseline data testing prior to exploration work commencing.

Recommendation 7.8

That reinjection of wastewater into deep aquifers and conventional reservoirs should be prohibited until comprehensive geotechnical investigations are undertaken to show that no seismic activity will occur.

NTCA Amendment: the reinjection of wastewater is not supported unless an independent scientific review proves the feasibility and safety of water re-entering the system will not have detrimental environmental impacts.

Recommendation 7.9

That the following information about hydraulic fracturing fluids must be reported and publicly disclosed about hydraulic fracturing fluids prior to any hydraulic fracturing for onshore shale gas:

- *the chemicals to be used;*
- *the purpose of the chemicals;*
- *how the chemicals will be managed on-site, including how spills will be prevented and if spills do occur how they will be remediated and managed; and*
- *the laws that apply to the management of the chemicals and how they are enforced.*

That the following information about flowback and produced water be reported and publicly disclosed:

- *the chemicals and NORMs found;*
- *how and where the chemicals and NORMs will be managed, transported and treated, including how spills will be prevented and if spills occur, how they will be remediated and managed; and*
- *the laws that apply to the management of the chemicals and NORMs and their enforcement.*



NTCA Amendment: recommend including the volume of these chemicals, and detailed advice on how they will be stored on site.

Recommendation 7.10

That in order to minimise the risk of groundwater contamination from leaky gas wells:

- *all wells to be hydraulically fractured must be constructed to at least Category 9 or equivalent and tested to ensure well integrity before and after hydraulic fracturing, with the results certified by the regulator (see also Recommendations 5.3 and 5.4);*
- *a minimum offset distance of at least 1 km between water supply bores and well pads must be adopted unless specific site-specific information is available to the contrary (see also Recommendation 7.7);*
- *a robust and rapid wastewater spill clean up management plan must be prepared for each well pad to ensure immediate remediation in the event of a spill; and*
- *real-time publicly available groundwater quality monitoring must be implemented around each well pad to detect any groundwater contamination. Multilevel observation bores must be used to ensure full coverage of the aquifer horizon, with a level of vertical resolution sufficient to be able to identify the location of any leak.*

NTCA supports this recommendation.

Recommendation 7.11

That to reduce the risk of contamination of surface aquifers from on-site spills of wastewater:

- *the EMP for each well pad must include an enforceable wastewater management plan and spill management plan, which must be approved prior to the commencement of hydraulic fracturing;*
- *enclosed tanks must be used to hold all wastewater;*
- *the well pad site must be treated (for example, with a geomembrane) to prevent the infiltration of wastewater spills into underlying soil and thence into to an aquifer; and*
- *a real-time publicly accessible monitoring program for each well pad must be established.*

NTCA Amendment: include a defined process as to how on-site spills will be managed and rectified by the gas company.

Recommendation 7.12

That the Government undertake a review to determine:

- *whether restrictions need to be placed on the transport of hydraulic fracturing chemicals and wastewater during the wet season, particularly on unsealed roads; and*
- *whether rail transport of some or all of the hydraulic fracturing chemicals and other consumables required should be used.*



NTCA supports this recommendation.

Recommendation 7.13

That the reinjection of treated or untreated wastewaters (including brines) into aquifers not be permitted until detailed investigations are undertaken to determine whether or not the risks associated with this practice can be managed to acceptable levels.

NTCA Amendment: similar amendment to Recommendation 7.8, the reinjection of wastewater is not supported unless an independent scientific review prove the feasibility and safety of water re-entering the system will not have detrimental environmental impacts.

Recommendation 7.14

That gas companies must submit details of all known fault locations and geomechanical planning to the regulator.

NTCA supports this recommendation.

Recommendation 7.15

That appropriate site-specific modelling of the local groundwater system must be undertaken before any water is extracted for the purposes of onshore hydraulic fracturing for shale gas in order to ensure that there are no unacceptable impacts on groundwater quality and quantity.

NTCA supports this recommendation.

Recommendation 7.16

That the discharge of shale gas hydraulic fracturing wastewater (treated or untreated) to either drainage lines, waterways, temporary stream systems or waterholes not be permitted.

NTCA Amendment: change to read “That the discharge of shale gas hydraulic fracturing wastewater (treated or untreated) to either drainage lines, waterways, temporary stream systems or waterholes be strictly prohibited”.



Recommendation 7.17

That to minimise the adverse impacts of onshore shale gas infrastructure (roads and pipelines) on the flow and quality of surface waters, the Government must ensure that:

- *landscape or regional impacts are considered in the design and planning phase of development to avoid unforeseen consequences arising from the incremental (piecemeal) rollout of linear infrastructure; and*
- *roads and pipeline corridors must be constructed to:*
 - *minimise the interference with wet season surface water flow paths;*
 - *minimise erosion of exposed (road) surfaces and drains;*
 - *ensure fauna passage at all stream crossings; and*
 - *comply with relevant guidelines such as the International Erosion Control Association*

Best Practice for Erosion and Sediment Control and the Australian Pipeline Industry Association Code of Environmental Practice 2009.

NTCA Amendment: include provision that any and all erosion created by any gas industry activity must be remediated immediately by the gas company responsible.

Recommendation 7.18

That the Beetaloo Sub-basin SREBA should take into account all groundwater dependent ecosystems in the Roper River region.

NTCA supports this recommendation.

Recommendation 7.19

That the Beetaloo Sub-basin SREBA should take into account all subterranean aquatic ecosystems in the Roper River region.

NTCA supports this recommendation.

LAND

Recommendation 8.1

That strategic regional terrestrial biodiversity assessments are conducted as part of a SREBA for all bioregions prior to any onshore shale gas production, with all onshore shale gas development excluded from areas considered to be of high conservation value. The results of the SREBA must inform any decision to release land for exploration as specified in Recommendation 14.2 and be considered by the decision-



maker in respect of any activity-based EMP.

NTCA supports this recommendation.

Recommendation 8.2

That a baseline assessment of all weeds within a permit area be conducted prior to any onshore shale gas exploration or development and that ongoing weed monitoring be undertaken to inform any weed management measures necessary to ensure no incursions or spread of weeds. Gas companies must have a dedicated weeds officer whose role is to monitor well pads, roads and pipeline corridors for weeds.

NTCA Amendment: amend final sentence to read “Gas companies must have a dedicated weeds officer whose role is to monitor well pads, roads and pipeline corridors for weeds in consultation with the landholder”.

Recommendation 8.3

That gas companies be required to have a weed management plan in place prior to entering onto a petroleum permit. The plan must be consistent with all relevant statutory weed management plans and relevant threat abatement plans established under the EPBC Act.

NTCA Amendment: as per amendment to Recommendation 8.2, the recommendation should read “That gas companies be required to have a weed management plan, which has been established in consultation with and agreed to by the landholder, in place prior to entering onto a petroleum permit. The plan must be consistent with all relevant statutory weed management plans and relevant threat abatement plans established under the EPBC Act.”

Recommendation 8.4

That gas companies be required to comply with any statutory regional fire management plan. The fire management plan should:

- *address the impact that any onshore shale gas industry will have on fire regimes in the NT, and how those impacts should be managed;*
- *establish robust monitoring programs for assessing seasonal conditions and fuel loads;*
- *require that annual fire mapping be undertaken to monitor any increase in fire frequency due to any onshore shale gas development;*
- *require baseline data to be established for at least the decade prior to commencement of any onshore shale gas development; and require the implementation of management actions, such as prescribed fuel reduction burns at strategic locations, to reduce fuel loads and protect key values and assets if required on the basis of the annual fuel monitoring data.*



NTCA Amendment: add requirement stating *“Any fuel reduction burns will be conducted by or directly supervised by the landholder, and will only be conducted under the landholder’s express permission. Furthermore, gas exploration activities shall not impact on a pastoralists ability to use fire for the purposes of environmental management, such as woody weed control.”*

Recommendation 8.5

That as part of a SREBA, a study be undertaken to determine if any threatened species are likely to be affected by the cumulative effects of vegetation and habitat loss, and if so, that there be ongoing monitoring of the populations of any such species. If monitoring reveals a decline in populations (compared with pre-development baselines), management plans aimed at mitigating these declines must be developed and implemented.

NTCA Amendment: any impact on the pastoral land or its operations by monitoring, management or mitigation will result in the landholder being compensated in full. This includes any landholder time taken up by these activities and any disruption to the pastoral business’ operations.

Recommendation 8.6

That the area of vegetation cleared for infrastructure development (well pads, roads and pipeline corridors) be minimised through the efficient design of flowlines and access roads, and where possible, the co-location of shared infrastructure by gas companies.

NTCA supports this recommendation.

Recommendation 8.7

That well pads and pipeline corridors be progressively rehabilitated, with native vegetation re-established such that the corridors become ecologically integrated into the surrounding landscape.

NTCA Amendment: change to read *“That well pads and pipeline corridors be progressively regenerated with vegetation or groundcover established, in consultation and agreement with the landholder.”*



Recommendation 8.8

That to compensate for any local vegetation, habitat and biodiversity loss, the Government develop and implement an environmental offset policy to ensure that, where environmental impacts and risks are unable to be avoided or adequately mitigated, they are offset.

NTCA Amendment: must stipulate that any environmental offset imposed does not detrimentally impact the affected landholder in any way and is fully compensatable to the landholder.

Recommendation 8.9

That the Government consider the establishment and operation of local Aboriginal land ranger programs to undertake land conservation activities.

NTCA Amendment: change to read *“That the Government consider the establishment and operation of local Aboriginal land ranger programs to undertake land conservation activities on Indigenous owned land only. The pastoralist reserves the right to choose a service provider to undertake any land conservation activities on the pastoral lease.*

Recommendation 8.10

That environmental legislation include a requirement for gas companies to identify critical habitats during corridor construction and select an appropriate mechanism to avoid detrimental impact on them.

NTCA supports this recommendation.

Recommendation 8.11

That corridor widths be kept to a minimum, with pipelines and other linear infrastructure buried, except for necessary inspection points, and the disturbed ground revegetated.

NTCA Amendment: change the word *“revegetated”* to *“regenerated”*. Amend wording to read *“That corridor widths be kept to a minimum, with pipelines and other linear infrastructure buried, except for necessary inspection points, and the disturbed ground be regenerated, in consultation and agreement with the Landholder, to at least the standard existing immediately prior to any disturbance”*.



Recommendation 8.12

That directional drilling under stream crossings be used in preference to trenching unless geomorphic and hydrological investigations confirm that trenching will have no detrimental impact on water flow patterns and waterhole water retention timing.

NTCA supports this recommendation.

Recommendation 8.13

That roads and pipeline surface water flow paths minimise erosion of all exposed surfaces and drains, and comply with design for fauna passage.

NTCA supports this recommendation.

Recommendation 8.14

That all corridors be constructed to minimise the interference with wet season stream crossings and comply with relevant guidelines, such as the International Erosion Control Association Best Practice for Erosion and Sediment Control and the Australian Pipeline Industry Association Code of Environmental Practice 2009.

NTCA supports this recommendation.

Recommendation 8.15

That to minimise the impact of any onshore shale gas industry on landscape amenity, gas companies must demonstrate that they have minimised the surface footprint of development to ALARP, including that:

- *well pads are spaced a minimum of 2 km apart; and*
- *the infrastructure within any development areas is not visible from major public roads.*

NTCA Amendment – include additional restriction stating, “well pads, pipelines and related gas infrastructure must not be constructed within a 5,000m radius of Reserved Blocks, unless expressly agreed to by the landholder during access agreement negotiations.”

“Reserved Blocks” means land within 5000m laterally of any of the following:

- **a permanent building used for any of the following purposes**
 - **a residence or dwelling**
 - **a school house or classroom, hospital or first aid station**
 - **a community, sporting or recreational purpose**
 - **a business**



- ***an artesian well, bore, dam, livestock watering point or water storage facility***
 - ***a principal or other stock yard***
 - ***a cemetery or burial ground***
 - ***an area used for any of the following purposes***
 - ***a school***
 - ***that is aquaculture, intensive animal feedlotting***
 - ***an area, building or structure prescribed by a regulation***
-

Recommendation 8.16

That the Government assess the impact that all heavy-vehicle traffic associated with any onshore shale gas industry will have on the NT's transport system and develops a management plan to mitigate such impacts. Consideration must be given to:

- *forecast traffic volume and roads used;*
- *the feasibility of using the existing Adelaide - Darwin railway line to reduce heavy-vehicle road use; and*
- *road upgrades.*

NTCA supports this recommendation.

GREENHOUSE GAS EMISSIONS

Recommendation 9.1

That to reduce the risk of upstream methane emissions from onshore shale gas wells in the NT the Government implement the US EPA New Source Performance Standards of 2012 and 2016.6

The NTCA is neutral regarding this recommendation.

Recommendation 9.2

That a code of practice be developed and implemented for the ongoing monitoring, detection and reporting of methane emissions from onshore shale gas fields and wells once production of any onshore shale gas commences.7

The NTCA is neutral regarding this recommendation.

Recommendation 9.3

That baseline monitoring of methane concentrations be undertaken for at least one year prior to the commencement of shale gas production on a production licence.



The NTCA is neutral regarding this recommendation.

Recommendation 9.4

That baseline and ongoing monitoring be the responsibility of the regulator, undertaken by an independent third party, and funded by industry.

The NTCA is neutral regarding this recommendation.

Recommendation 9.5

That all monitoring results should be published online on a continuous basis in real time.

The NTCA is neutral regarding this recommendation.

Recommendation 9.6

That once emission concentration limits are exceeded, the regulator must be notified, investigations must be undertaken to identify the source(s) of the excess levels, and makegood provisions be undertaken by industry where necessary. These measures are to be the responsibility of industry.

The NTCA is neutral regarding this recommendation.

Recommendation 9.7

That the action framework outlined in Table 9.10 of the draft Final Report be implemented to mitigate any supplementary risks that may prevent the achievement of lower levels of fugitive methane emissions.

The NTCA is neutral regarding this recommendation.

PUBLIC HEALTH

Recommendation 10.1

That formal site or regional-specific HHRA reports be prepared and approved prior to the grant of any production licence for the purpose of any shale gas development. Such HHRA reports to address the potential human exposures and health risks associated with the exploration for, and the production of, any shale gas development, off-site transport, and the decommissioning of wells, as recommended in



NCRA guidance. The HHRA reports must include risk estimates assessments of exposure pathways that are deemed to be incomplete.

NTCA supports this recommendation.

Recommendation 10.2

That to better inform the human health risk assessments, the following knowledge gaps must be addressed and published:

- *contemporary knowledge of the chemicals proposed to be used in hydraulic fracking fluids for onshore shale gas extraction in the NT;*
- *details of the chemical composition of flowback and produced water in the NT; and*
- *the proposed methods of treatment and/or disposal of flowback and produced water.*

NTCA supports this recommendation.

Recommendation 10.3

That in consultation with industry, landowners and local communities, the regulator set appropriate setback distances to minimise risks identified in HHRA reports, including potential pathways for waterborne and airborne contaminants, for all shale gas development (exploration and production). Such setback distances to be not less than 1,600 m.

NTCA Amendment: amend recommendation to read ***“That in consultation with industry, landowners and local communities, the regulator appropriate setback distances from a Reserved Block to minimize risks identified in HHRA reports, including potential pathways for waterborne and airborne contaminants, for all shale gas development (exploration and productions. Such setback distances to be not less than 5,000m.*”**

“Reserved Blocks” means land within 5000m laterally of any of the following:

- ***a permanent building used for any of the following purposes***
 - ***a residence or dwelling***
 - ***a school house or classroom, hospital or first aid station***
 - ***a community, sporting or recreational purpose***
 - ***a business***
 - ***an artesian well, bore, dam, livestock watering point or water storage facility***
 - ***a principal or other stock yard***
 - ***a cemetery or burial***
- ***an area used for any of the following purposes***
 - ***a school***
 - ***that is aquaculture, intensive animal feedlotting***



- ***an area, building or structure prescribed by a regulation***
-

ABORIGINAL PEOPLE AND THEIR CULTURE

Recommendation 11.1

That gas companies be required to obtain an Authority Certificate before undertaking any onshore shale gas activity.

The NTCA is neutral regarding this recommendation.

Recommendation 11.2

That AAPA:

- *be provided with a copy of any application to conduct hydraulic fracturing for onshore shale gas under petroleum environment legislation at an early stage of the assessment and approval process;*
- *be given an adequate opportunity to explain the application to custodians; and*
- *be given an adequate opportunity to comment on the application and have those comments considered by the decision-maker.*

The NTCA is neutral regarding this recommendation.

Recommendation 11.3

That legislation for the protection of sacred sites be amended so that sub-surface formations can be included as a sacred site or a feature of a sacred site.

The NTCA strongly opposes this recommendation, and recommends that it be removed.

Recommendation 11.4

That gas companies be required to provide a statement to native title holders with information of the kind required under s 41(6) of the Land Rights Act for the purposes of negotiating a petroleum exploration agreement under the future act provisions of the Native Title Act.

The NTCA is neutral regarding this recommendation.



Recommendation 11.5

That interpreters be used at all consultations with Aboriginal people for whom English is a second language. Interpreters must be appropriately supported to ensure that they understand the subject matter of the consultation.

NTCA supports this recommendation.

Recommendation 11.6

That Land Councils, AAPA, and the Government cooperate to ensure that reliable, accessible (including with the use of interpreters), trusted, and accurate information about any onshore shale gas industry is effectively communicated to all Aboriginal people that will be affected by any onshore shale gas industry. That the gas industry fund the design and delivery of any information programs.

NTCA supports this recommendation.

Recommendation 11.7

That Land Councils, traditional Aboriginal owners and gas companies consider making all, or if this is not appropriate, part, of negotiated petroleum exploration agreements publicly available.

NTCA supports this recommendation.

Recommendation 11.8

That a comprehensive assessment of the cultural impacts of any onshore shale gas development be completed prior to the grant of any production licence. The cultural assessment must:

- *be designed in consultation with Land Councils and AAPA;*
- *engage traditional Aboriginal owners, native title holders and the affected Aboriginal communities, and be conducted in accordance with world leading practice; and*
- *be resourced by the gas industry.*

The NTCA is neutral regarding this recommendation.



SOCIAL IMPACTS

Recommendation 12.1

That as part of any strategic SIA early, and adequate consultation be undertaken on road use and related infrastructure requirements that result in realistic road upgrade and work schedules to support the required transport infrastructure for any unconventional shale gas industry and other users.

NTCA supports this recommendation.

Recommendation 12.2

That gas companies ensure the provision of adequate and sustainable funding to ensure the identified infrastructure requirements are met and maintained appropriately.

NTCA supports this recommendation.

Recommendation 12.3

That consideration be given to the development of road use agreements between gas companies and local councils that include safety considerations and ensure monitoring for compliance, including reporting requirements.

NTCA Amendment: remove "local councils" from this recommendation. Most of the NT road network is administered by the NT Government.

Recommendation 12.4

That gas companies be required to work closely with the Government and local communities early in any onshore shale gas development projects to ensure that any potential impacts on services are mitigated.

NTCA supports this recommendation.

Recommendation 12.5

That any strategic social impact assessment anticipate the long-term impacts and requirements for housing (not just through construction phase) to adequately mitigate the risk of inflated real estate prices and shortages within a community.

NTCA Amendment: include provision for suitable land being made available within towns and free of Native Title for the purposes of subdivision to allow for future development.



Recommendation 12.6

That in consultation with local communities, Aboriginal Land Councils, local government, and the Government, gas companies be required to provide accommodation, whether temporary or permanent, which must be completed prior to the construction/development phase.

NTCA Amendment: recommendation should be amended to state “That in consultation with local communities, Aboriginal Land Councils, local government, the Government, and pastoralists, gas companies be required to identify suitable accommodation, whether temporary or permanent, which must be completed prior to the construction/development phase.”

Recommendation 12.7

That there be a minimum standard set for gas companies to source goods, services and workers from local communities. This should include ensuring training programs are developed for Aboriginal and other local workers to develop the necessary skill sets and to improve their opportunities for local employment in any onshore shale gas industry.

NTCA supports this recommendation.

Recommendation 12.8

That gas companies use a range of mediums to proactively work with local businesses to ensure they are able and adequately skilled to compete for contracts. They should follow the steps outlined above by the Queensland Gasfields Commission to assist them to be ready to participate in any economic opportunities that may emerge.

NTCA supports this recommendation.

Recommendation 12.9

That the Government regulate to ensure that existing and future users of land can continue to enjoy their rights and interests in the land, including a mechanism to compensate for, among other things:

- *loss of use of surface area where infrastructure is installed;*
- *diminution of the use made or that may be made of the land or any improvement on it;*
- *severance of any part of the land from other areas of the landholder's property; and*
- *any cost, damage or loss arising from the carrying out of activities on the land.*



NTCA Amendment: add a point referring to a landholder's time i.e. when a landholder is engaged in any activities in relation to gas exploration and is taken away from normal operation and life on that land, the time expended on the gas activity will be compensatable.

Recommendation 12.10

That gas companies be required to establish a relationship with communities to determine how to best facilitate community cohesion on an individual and collective level. This should be done in consultation with Aboriginal land councils and local councils, to ensure that the needs of all parties are accommodated.

NTCA Amendment: this recommendation, in its present form, ignores the fact that pastoralists are also part of the community. Any consultation involving "community" is to include all landholders, including pastoralists.

Recommendation 12.11

That gas companies must develop and implement a social impact management plan which details how they will optimise the relationship with the community prior to any onshore shale gas development. This plan must be developed in consultation with Aboriginal land councils and local councils to ensure that it meets community needs and be presented to the regulator for approval prior to any production approval being granted.

NTCA Amendment: this recommendation, in its present form, ignores the fact that pastoralists are also part of the community. Any consultation involving "community" is to include all landholders, including pastoralists.

Recommendation 12.12

That gas companies be required to develop a social impact management plan that outlines how they intend to develop and continue their SLO within each of the communities they will operate in. This should be developed in conjunction with any SIA, and introduced as early as possible, preferably in the exploration phase, to ensure that any potential changes can be flagged in advance to allow communities time to adapt and prepare for the changes.

NTCA Amendment: this recommendation, in its present form, ignores the fact that pastoralists are also part of the community. Any consultation involving "community" is to include all landholders, including pastoralists.



Recommendation 12.13

That a strategic SIA, separate from an Environmental Impact Statement, be conducted in advance of any onshore shale gas development, during the exploration phase. Such SIAs must be conducted holistically to anticipate any expected impacts on infrastructure and services, and to mitigate potential negative impacts, and be funded by industry.

NTCA supports this recommendation.

Recommendation 12.14

That early engagement and communication of the findings of the strategic SIA be systematically undertaken with all potentially affected communities and with all levels of government to ensure that unintended consequences are limited and shared understanding of roles and responsibilities, including financial responsibilities, can be developed.

NTCA supports this recommendation.

Recommendation 12.15

That ongoing monitoring and measurement of social and cumulative impacts be undertaken with the results publicly available.

NTCA supports this recommendation.

Recommendation 12.16

That in order to operationalise an SIA framework in the NT the Government should make the following structural reforms:

- *introduce mechanisms for strategic assessment, either through a Strategic Assessment Agreement under the EBPC Act, or through reforms proposed in the 2015 Hawke Report. A strategic SIA is needed to decide if any onshore shale gas industry should go ahead, and if so, under what conditions;*
- *establish or enhance an independent authoritative body, such as the EPA or a newly established independent regulator (see Chapter 14), with powers to request information from, and to facilitate the collaboration between individual gas companies, and between gas companies, government agencies (including local government), communities and landholders;*
- *establish a long-term participatory regional monitoring framework, overseen by the EPA or the independent regulator, with secure funding (raised from industry levies) and able to endure multiple election cycles; and*
- *establish periodic and standardised reporting to communities on the social, economic and environmental performance of the industry through either the independent regulator or a specialised*



research institution. This includes information from the monitoring of key indicators, and an industry-wide complaints and escalation process.

NTCA supports this recommendation.

ECONOMIC IMPACTS

Recommendation 13.1

That in developing its budget the Government consider the source of royalty revenue to ensure that regions that are the source of taxation revenue benefit from any onshore shale gas extraction activity that has occurred in that region.

NTCA strongly supports this recommendation.

Recommendation 13.2

That the Government work with stakeholders and gas companies to ensure that there is early knowledge of the labour and skills required for all phases of any onshore shale gas development to maximise local employment.

NTCA strongly supports this recommendation.

Recommendation 13.3

That the Government work with gas companies, training providers, local workers, job seekers, Land Councils and local Aboriginal corporations and communities to maximise opportunities for local people to obtain employment during all phases of any onshore shale gas development.

NTCA Amendment: include provision that any employment or service provision resulting from onshore gas development occurring on a pastoral lease be offered, in the first instance, to the affected landholder.

Recommendation 13.4

That the Government ensure that training providers and gas companies collaborate so that skill requirements are clearly understood by training providers, and that trainees acquire appropriate skills.

NTCA supports this recommendation.



Recommendation 13.5

That the Government work with gas companies and local suppliers to ensure there is early knowledge of local supply and service opportunities for all phases of any onshore shale gas development.

NTCA supports this recommendation.

Recommendation 13.6

That the Government work with gas companies and local suppliers (regional and Territory wide) to identify immediate supply opportunities and to map future potential supply opportunities. This should be done in consultation with the ICN-NT and the Chamber of Commerce.

NTCA supports this recommendation.

Recommendation 13.7

That the Government work with gas companies, Land Councils, local Aboriginal corporations, Aboriginal communities, and businesses to identify local supply and service opportunities to keep sustainable economic benefits on country.

NTCA Amendment: amend to read “*That the Government work with gas companies, Land Councils, local Aboriginal corporations, Aboriginal communities, Pastoralists and businesses to identify local supply and service opportunities to keep sustainable economic benefits on country*” i.e. include Pastoralists in list of stakeholders.

Recommendation 13.8

That the Government assist regional businesses to obtain quality assurance certification and to partner with larger suppliers to encourage greater local supply, employment and knowledge transfer.

NTCA supports this recommendation.

Recommendation 13.9

That the Government work with gas companies, peak bodies of affected industries, and affected stakeholders to identify and resolve potentially negative economic impacts of any onshore shale gas development on other industries.



NTCA supports this recommendation.

Recommendation 13.10

That the Government work with all levels of government, peak organisations, communities and gas companies to identify and manage infrastructure risks, including identifying options to fund any new infrastructure or upgrade existing infrastructure.

The NTCA strongly supports this recommendation.

REGULATORY REFORM

Recommendation 14.1

That the Government design and implement a full cost recovery system for the regulation of any onshore shale gas industry.

NTCA supports this recommendation.

Recommendation 14.2

That the Minister publish any proposed land release for any onshore shale gas exploration. That the Minister must consult with the community and stakeholders and consider any comments received in relation to any proposed land release.

That the Minister be required to take into account the following matters when deciding whether or not to release land for exploration:

- *the prospectivity of the land for petroleum;*
- *the possibility of coexistence between the onshore gas industry and any existing or future industries in the area; and*
- *whether the land is an area of intensive agriculture, high ecological value, high scenic value, culturally significant or strategic significance. That the Minister publish a statement of reasons why the land has been released and why coexistence is deemed to be possible.*

NTCA supports this recommendation.

Recommendation 14.3

That Government consider mechanisms, including an amendment to the Petroleum Act, to ensure that applications that are currently extant are not granted in relation to areas that are not prospective for onshore shale gas or where coexistence is not possible. Consideration must be given to areas of intensive agriculture, high ecological value, high scenic value, cultural significance and strategic significance.



NTCA supports this recommendation.

Recommendation 14.4

That the following areas must be declared reserved blocks under s 9 of the Petroleum Act, each with an appropriate buffer zone:

- *areas of high tourism value;*
- *towns and residential areas (including areas that have assets of strategic importance to nearby residential areas);*
- *national parks;*
- *conservation reserves;*
- *areas of high ecological value; and*
- *areas of cultural significance.*

NTCA Amendment: amend Reserved Blocks to include:

- **land within 5000m laterally of any of the following purposes**
 - **a residence or dwelling**
 - **a school house or classroom, hospital or first aid station**
 - **a community, sporting or recreational purpose**
 - **a business**
 - **an artesian well, bore, dam, livestock watering point or water storage facility**
 - **a principal or other stock yard**
 - **a cemetery or burial**
- **an area used for any of the following purposes**
 - **a school**
 - **that is aquaculture, intensive animal feedlotting**
 - **an area, building or structure prescribed by a regulation**

Recommendation 14.5

That prior to undertaking any onshore shale gas activity on a Pastoral Lease (including exploration), a land access agreement must be signed by the Pastoral Lessee and the gas company. That the land access agreement be required by legislation. That breach of the land access agreement will be a breach of the relevant approval giving rise to the petroleum activity being carried out on the land.

The NTCA strongly supports this recommendation.



Recommendation 14.6

That in addition to any terms negotiated between the pastoralist and the gas company, the statutory land access agreement must contain standard minimum protections for pastoralists.

NTCA Amendment: *"A statutory Land Access Agreement to be developed by a working group comprised of NTCA Executive, Gas Industry Representative, NT Government representative, that provides standard minimum protection for pastoralists. Further terms negotiated between the pastoralists and the gas company may be included as special condition as to the Statutory Land Access Agreement. The parties to determine whether the special conditions take precedent to the standard terms of the Statutory Land Access Agreement."*

Further to the recommendation, the NTCA should receive government funding to resource its participation in the working group.

Recommendation 14.7

That the Government consider implementing a mandatory minimum compensation scheme payable to Pastoral Lessees for all onshore shale gas production on their Pastoral Lease. Compensation should be by reference to the number of wells drilled on the Pastoral Lease and the area of land cleared and rendered unavailable to the Pastoral Lessee.

NTCA Amendment: remove "mandatory minimum". Amend to read *"That the Government implement a compensation scheme payable to all Pastoral Lessees affected by petroleum and gas exploration"*.

Also refer to Recommendation 12.9

Recommendation 14.8

That the Government consider whether a royalty payment scheme should be implemented to compensate Pastoral Lessees for all new petroleum fields brought into production.

NTCA Amendment: amend to read *"That the Government should implement a royalty payment scheme to compensate Pastoral Lessees for all new petroleum fields brought into production."*

Recommendation 14.9

That any person may lodge an objection to the proposed grant of an exploration permit. That the Minister must, in determining whether to grant or refuse the application, take into account the objections received, and that all objections received by the Minister be published.



NTCA Amendment: That only persons directly affected by the proposed grant of an exploration permit may lodge an objection.

Recommendation 14.10

That the Petroleum Act be amended to require the Minister to take into account and apply the principles of ESD.

NTCA supports this recommendation.

Recommendation 14.11

That the Minister must not grant an exploration permit unless satisfied that the gas company is a fit and proper person, taking into account, among other things, the company's environmental history and history of compliance with the Petroleum Act and any other relevant petroleum legislation. That the Minister's reasons for determining whether or not the gas company is a fit and proper person be published.

NTCA Amendment; amend to read “That the Minister must not grant an exploration permit unless satisfied that the gas company is a fit and proper person, taking into account, among other things, the company's environmental history and history of compliance with the Petroleum Act and any other relevant petroleum legislation, and its financial capacity to fully remediate in a timely manner any adverse environmental (or otherwise) impacts caused by its operations. That the Minister's reasons for determining whether or not the gas company is a fit and proper person be published.”

Recommendation 14.12

That Government develop a financial assurance framework for the onshore shale gas industry.

The framework must:

- *be transparent and developed in consultation with the community and key stakeholders;*
- *clarify the activities that require a bond or security to be in place and describe how the amount of the bond or security is calculated; and*
- *require the public disclosure of all financial assurances and the calculation methodology.*

NTCA supports this recommendation.



Recommendation 14.13

That the government impose a non-refundable levy for the long-term monitoring, management and remediation of abandoned onshore shale gas wells in the NT.

NTCA supports this recommendation.

Recommendation 14.14

That all draft EMPs for hydraulic fracturing must be published and available for public comment prior to Ministerial approval. That all comments made on draft EMPs be published. That the Minister must take into account comments received during the public consultation period when assessing a draft EMP.

NTCA supports this recommendation.

Recommendation 14.15

That all notices and reports of environmental incidents, including reports about reportable incidents under the Petroleum Environment Regulations, must be published.

NTCA supports this recommendation.

Recommendation 14.16

That the Schedule be repealed and replaced with legislation to regulate seismic surveys, drilling, hydraulic fracturing, and well abandonment prior to the grant of any production licence for the purpose of any onshore shale gas development.

NTCA supports this recommendation.

Recommendation 14.17

That the Government develop and implement enforceable codes of practice with minimum, prescriptive, standards and requirements to give clarity to the regulatory framework.

NTCA supports this recommendation.



Recommendation 14.18

That the Minister must be satisfied that a gas company is a fit and proper person to hold a production licence prior to the licence being granted.

NTCA supports this recommendation.

Recommendation 14.19

That, as part of the environmental assessment and approval process, the Minister be required to consider the cumulative impacts of any proposed onshore shale gas activity.

NTCA supports this recommendation.

Recommendation 14.20

That the Government consider developing and implementing a regional or area-based assessment in the regulation of any onshore shale gas industry in the NT.

NTCA supports this recommendation.

Recommendation 14.21

That the Petroleum Act and Petroleum Environment Regulations be amended to allow open standing to challenge administrative decisions made under these enactments.

The NTCA supports this recommendation.

Recommendation 14.22

That merits review be available in relation to decisions under the Petroleum Act and Petroleum Environment Regulations including, but not limited to, decisions in relation to the granting of exploration permits and approval of EMPs.

That the following third parties, at a minimum, have standing to seek merits review:

- *proponents (that is, gas companies) who are seeking a permit, approval, application, licence or permission to engage in onshore shale gas activity;*
- *persons who are directly or indirectly affected by the decision;*
- *members of an organised environmental, community or industry group;*
- *Aboriginal Land Councils;*
- *local government bodies; and*



- *persons who have made a genuine and valid objection during any assessment or approval process.*

That an independent body, such as NTCAT, be given jurisdiction to hear merits review proceedings in relation to any onshore shale gas industry.

NTCA supports this recommendation.

Recommendation 14.23

Where litigation is brought genuinely in the public interest, that costs rules be amended to allow NT courts to not make an order for the payment of costs against an unsuccessful public interest litigant.

The NTCA supports this recommendation.

Recommendation 14.24

That the Government develop and implement a robust and transparent compliance monitoring strategy, having regard to the principles set out in the ANAO Administering Regulation: Achieving the right balance guide, and the policy in SA.

NTCA supports this recommendation.

Recommendation 14.25

That the Government enact whistleblower protections. That a hotline be established to make anonymous reports about any onshore shale gas industry non-compliance and that such reports be investigated.

NTCA supports this recommendation.

Recommendation 14.26

That the Government consider developing and implementing a tiered regulatory model such as the one in SA, whereby gas companies with a demonstrated record of good governance and compliance require a lower level of monitoring, with a corresponding reduction in regulatory fees.

NTCA Amendment: the NTCA supports a reduction in regulatory fees for such companies, but not a reduction in monitoring.



Recommendation 14.27

That the Government enact a broader range of powers to sanctions, including but not limited to:

- *remediation orders;*
- *enforceable undertakings;*
- *injunctions; and*
- *civil penalties.*

NTCA supports this recommendation.

Recommendation 14.28

That the Government allow civil enforcement proceedings to be instituted to enforce potential or actual non-compliance with the legislation governing any onshore shale gas industry.

The NTCA strongly supports this recommendation.

Recommendation 14.29

That the Government consider enacting provisions that reverse the onus of proof or create rebuttable presumptions for pollution and environmental harm offences for all regulated onshore shale gas activities.

NTCA Amendment: remove the word “consider”. Amend to read “*That the Government enact provisions that reverse the onus of proof or create rebuttable presumptions for pollution and environmental harm offences for all regulated onshore shale gas activities.*”

Recommendation 14.30

That penalties for environmental harm under the Petroleum Act and Petroleum Environment Regulations be reviewed and increased in line with leading practice.

NTCA supports this recommendation.

Recommendation 14.31

That in order to ensure independence and accountability, there must be a clear separation between the agency with responsibility for regulating any onshore shale gas industry and the agency responsible for promoting that industry.

NTCA supports this recommendation.



Recommendation 14.32

That the Government develop and implement the reforms described in Option 1 and/or Option 2 above prior to any production licences being issued for any onshore shale gas activities in the NT.

NTCA Amendment: The NTCA recommends that reforms described in Option 1 be implemented, and agrees with this recommendation on this basis. The NTCA does not agree with Option 2 being implemented.

STRATEGIC REGIONAL ENVIRONMENTAL AND BASELINE ASSESSMENT

Recommendation 15.1

That a strategic regional environmental and baseline assessment (SREBA) be undertaken prior to the grant of any production licence for onshore shale gas.

NTCA supports this recommendation.

ADDITIONAL RECOMMENDATIONS

1. Due to the varying degrees of risk associated with each project and complex issues that will be unique from site to site and project to project, the NTCA considers individual rights critical to upholding the welfare of pastoralists and individual businesses, and as such maintains that a gas industry model in the Northern Territory must include the right to negotiate compensation for individual landholders including the individual right of pastoralists to say NO and or Yes to access.

This right must be legislated.

As Perpetual Leaseholders, NTCA members have the right of Exclusive Possession of their Land.

Each Landholder has the right to generally use the Lease (in accordance with the Lease conditions) without limitation.

2. To protect markets and customer confidence, both domestic and international, in our ability to supply clean, safe and nutritious beef and other agricultural products, additional biosecurity safeguards must be introduced to mitigate the impacts of increased activity on pastoral land as a result of the onshore gas industry.

The NTCA recommends that prior to entry to a pastoral or agricultural property, onshore gas workers/contractors etc must first complete an online biosecurity awareness module and



receive a certificate or card acknowledging completion of this module. Prior to entry, any individual must provide this certificate to the landholder. Entry can be denied by the landholder to individuals unable to produce this certificate.

The module will be developed and delivered by the pastoral industry in an online platform.

3. It is recommended that Land Access Agreements not include a “confidentiality clause”. Transparency is critical to harmonised development of a gas industry and cohesive shared land access arrangements.
4. NTCA is to be included in a NTG funded Gas Tribunal, similar to the current Land Assessment Panel. The Gas Tribunal should be established to deal with matters directly related to access by Gas Companies on private land. The Gas Tribunal must be endowed with such powers to direct compliance by both Pastoralists and Gas Companies in relations to any disputes arising in relation to Land Access Agreements. The Tribunal’s powers should be limited to disputes arising in relation to current and previous access arrangements, however, should not be constructed with powers related to decisions regarding compensation.
5. The NTCA, as a key stakeholder in the legislative drafting process, is to be resourced by the NTG to enable the NTCA to have informed input into the process through access to legal and expert advice where required.



APPENDIX 1. SUMMARY OF RECOMMENDATIONS

RECOMMENDATION NUMBER	NTCA RESPONSE	PAGE
<i>Shale Gas Extraction and Development</i>		
Recommendation 5.1	Support	2
Recommendation 5.2	Support	2
Recommendation 5.3	Support	2
Recommendation 5.4	Support	3
Recommendation 5.5	Support	3
Recommendation 5.6	Support	3
Recommendation 5.7	Support	3
Recommendation 5.8	Support	4
<i>Water</i>		
Recommendation 7.1	Support	4
Recommendation 7.2	Support	4
Recommendation 7.3	Support	4
Recommendation 7.4	Strongly Support	4
Recommendation 7.5	Amendment	5
Recommendation 7.6	Support	5
Recommendation 7.7	Amendment	5
Recommendation 7.8	Amendment	6
Recommendation 7.9	Amendment	6
Recommendation 7.10	Support	7
Recommendation 7.11	Amendment	7
Recommendation 7.12	Support	7
Recommendation 7.13	Amendment	8
Recommendation 7.14	Support	8
Recommendation 7.15	Support	8
Recommendation 7.16	Amendment	8
Recommendation 7.17	Amendment	9
Recommendation 7.18	Support	9
Recommendation 7.19	Support	9
<i>Land</i>		
Recommendation 8.1	Support	9
Recommendation 8.2	Amendment	10
Recommendation 8.3	Amendment	10
Recommendation 8.4	Amendment	10
Recommendation 8.5	Amendment	11
Recommendation 8.6	Support	11
Recommendation 8.7	Amendment	11
Recommendation 8.8	Amendment	12
Recommendation 8.9	Amendment	12



Recommendation 8.10	Support	12
Recommendation 8.11	Amendment	12
Recommendation 8.12	Support	13
Recommendation 8.13	Support	13
Recommendation 8.14	Support	13
Recommendation 8.15	Amendment	13
Recommendation 8.16	Support	14
Greenhouse Gas Emissions		
Recommendation 9.1	Neutral	14
Recommendation 9.2	Neutral	14
Recommendation 9.3	Neutral	14
Recommendation 9.4	Neutral	15
Recommendation 9.5	Neutral	15
Recommendation 9.6	Neutral	15
Recommendation 9.7	Neutral	15
Public Health		
Recommendation 10.1	Support	15
Recommendation 10.2	Support	16
Recommendation 10.3	Amendment	16
Aboriginal People and Their Culture		
Recommendation 11.1	Neutral	17
Recommendation 11.2	Neutral	17
Recommendation 11.3	Strongly Oppose	17
Recommendation 11.4	Neutral	17
Recommendation 11.5	Support	18
Recommendation 11.6	Support	18
Recommendation 11.7	Support	18
Recommendation 11.8	Neutral	18
Social Impacts		
Recommendation 12.1	Support	19
Recommendation 12.2	Support	19
Recommendation 12.3	Amendment	19
Recommendation 12.4	Support	19
Recommendation 12.5	Amendment	19
Recommendation 12.6	Amendment	20
Recommendation 12.7	Support	20
Recommendation 12.8	Support	20
Recommendation 12.9	Amendment	20
Recommendation 12.10	Amendment	21
Recommendation 12.11	Amendment	21
Recommendation 12.12	Amendment	21
Recommendation 12.13	Support	22



Recommendation 12.14	Support	22
Recommendation 12.15	Support	22
Recommendation 12.16	Support	22
<i>Economic Impacts</i>		
Recommendation 13.1	Strongly Support	23
Recommendation 13.2	Strongly Support	23
Recommendation 13.3	Amendment	23
Recommendation 13.4	Support	23
Recommendation 13.5	Support	24
Recommendation 13.6	Support	24
Recommendation 13.7	Amendment	24
Recommendation 13.8	Support	24
Recommendation 13.9	Support	24
Recommendation 13.10	Strongly Support	25
<i>Regulatory Reform</i>		
Recommendation 14.1	Support	25
Recommendation 14.2	Support	25
Recommendation 14.3	Support	25
Recommendation 14.4	Amendment	26
Recommendation 14.5	Strongly Support	26
Recommendation 14.6	Amendment	27
Recommendation 14.7	Amendment	27
Recommendation 14.8	Amendment	27
Recommendation 14.9	Amendment	27
Recommendation 14.10	Support	28
Recommendation 14.11	Amendment	28
Recommendation 14.12	Support	28
Recommendation 14.13	Support	29
Recommendation 14.14	Support	29
Recommendation 14.15	Support	29
Recommendation 14.16	Support	29
Recommendation 14.17	Support	29
Recommendation 14.18	Support	30
Recommendation 14.19	Support	30
Recommendation 14.20	Support	30
Recommendation 14.21	Support	30
Recommendation 14.22	Support	30
Recommendation 14.23	Support	31
Recommendation 14.24	Support	31
Recommendation 14.25	Support	31
Recommendation 14.26	Amendment	31
Recommendation 14.27	Support	32



Recommendation 14.28	Strongly Support	32
Recommendation 14.29	Amendment	32
Recommendation 14.30	Support	32
Recommendation 14.31	Support	32
Recommendation 14.32	Amendment	33
<i>Strategic Regional Environmental and Baseline Assessment</i>		
Recommendation 15.1	Support	33