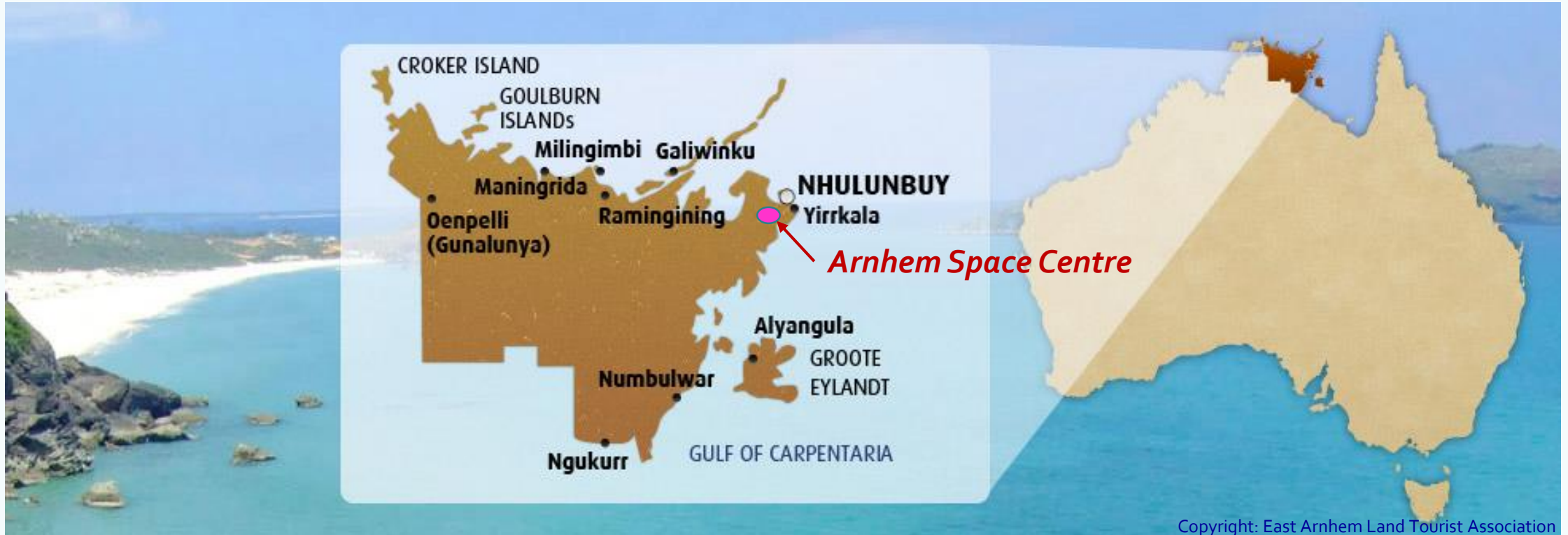


Arnhem Space Centre



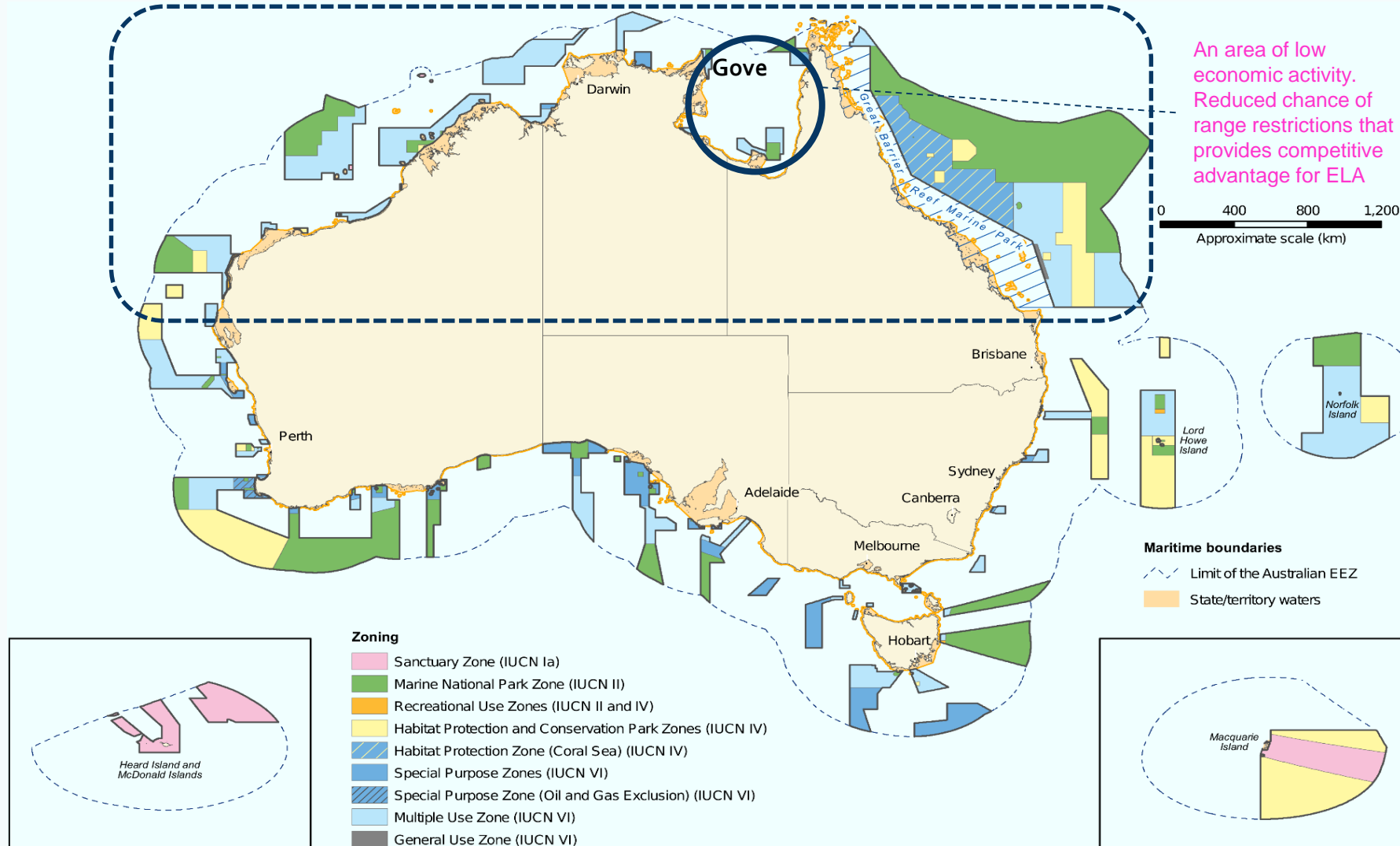
s22

Equatorial Launch Australia
February 2019



Pages 2-11 have been removed from Document 1 as irrelevant information
under section 22 of the *Freedom of Information Act 1982*

No marine reserves affecting launches





Pages 14-30 have been removed from Document 1 as irrelevant information
under section 22 of the *Freedom of Information Act 1982*

Contact Information

DISER - Released under the FOIA Act

Document 1

s22



ARNHEM SPACE CENTRE



From: s22
Sent: Tuesday, 4 June 2019 5:24 PM
To: s22
Cc: s22
Subject: NTEPA telephone call [SEC=UNCLASSIFIED]

Security Classification:
UNCLASSIFIED

Hi all,
Today I called s22 Environmental Operations Environment Division | Department of Environment and Natural Resources) from NT the Environmental Protection Agency. s22

s47C

s22

We noted further engagement may be required as we get closer to a launch. (We also noted it is not our role to advise on environmental issues.) There is no obvious regulatory gap, but concern as rocket activity has not been approved before.

s22

Thanks
s22

Relationship with the Department of Environment and Natural Resources
The Environment Division of the Northern Territory Government Department of Environment and Natural Resources (DENR) provides the NT EPA with staff and facilities to enable it to properly exercise its powers and perform its functions.

From <https://ntepa.nt.gov.au/about-ntepa>

s22

Australian Space Agency

P: s22

E: s22 @space.gov.au



10 Binara Street, Canberra City, ACT 2601
GPO Box 2013, Canberra ACT 2601



[Subscribe to our newsletter](#) to receive regular updates and all the latest news from the Australian Space Agency.

UNCLASSIFIED

Meeting with ELA

Friday, 12 July 2019 3:36 PM

Meeting Subject: ELA meeting - how can the Agency help - with s22 [SEC=UNCLASSIFIED]

Meeting Date: 12/07/2019 3:30 PM

Location: IH - 08.003 - ASA Boardroom - VC - 12 People

s22

- 4 stages:

s22

- In East Arnhem land we talk about ranger groups to find debris. Skill set that we would like to foster through contract negotiation phase
- Site planning detail - high level discussions re planning site. Our own environmental approvals. Fair way ahead. Planning around what launch will look like.

s22

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Document 4

s22

s22

UNCLASSIFIED

From: s22
Sent: Wednesday, 16 October 2019 11:59 AM
To: s22 @space.gov.au>
Cc: s22 @space.gov.au>
Subject: RE: Ministerial: Equatorial Launch Australia - Arnhem Space Centre [SEC=UNCLASSIFIED]

Thanks s22 I appreciate it.

The letter from the NT EPA to our Minister included some recommendations... It seems ELA don't need assessment under the NT Environmental Assessment Act 1982, but there are a number of things they recommend ELA do. s47C

we'll need to contact the NT EPA to see whether we're being asked to consider whether the NT EPA recommendations have been met by ELA. The recommendations include commitments (prior to the construction of a launch facility, and on an ongoing basis) in relation to environmental concerns.

In summary, I think s22 indicated there would be media in relation to the NT EPA decision; s47C

UNCLASSIFIED

From: s22
Sent: Wednesday, 16 October 2019 10:40 AM
To: Ss22 @space.gov.au>
Cc: s22 @space.gov.au>
Subject: Ministerial: Equatorial Launch Australia - Arnhem Space Centre [SEC=UNCLASSIFIED]

s22

You may recall s22 email regarding ELA and the outcome of the environmental assessment for the launch facility.

We have the item in PDMS now. There is no request for a brief, but I would assume it would be appropriate for the Minister to acknowledge receipt? Could you advise what you think the most appropriate course of action would be.

I have allocated you the PDMS item.

Regards

s22

s22

Australian Space Agency

P: s22

M: s22

E: s22

@space.gov.au

UNCLASSIFIED

From: Minister Andrews

Sent: Tuesday, 15 October 2019 10:16 AM
To: Parl Corro <ParlCorro@industry.gov.au>
Subject: FW: Equatorial Launch Australia - Arnhem Space Centre [SEC=UNCLASSIFIED]

Hi team

Could this please be provided to the ASA for appropriate action?

Cheers

s22

Office of the Hon Karen Andrews MP
Minister for Industry, Science and Technology
Parliament House Canberra ACT 2600 Australia
T s22

UNCLASSIFIED

From: s22 [s22@nt.gov.au]
Sent: Monday, 14 October 2019 10:19 AM
To: Minister Andrews
Subject: Equatorial Launch Australia - Arnhem Space Centre

Good morning

Please find attached correspondence from Dr Paul Vogel AM MAICD, Chairman, NT EPA.

Kind Regards,

s22
Environment Division | Department of Environment and Natural Resources
Northern Territory Government

Providing services for the
 Northern Territory
Environment Protection Authority

www.ntepa.nt.gov.au

Level 1, Arnhemica House, 16 Parap Road, Parap, NT 0820
GPO Box 3675, Darwin, NT 0801

P: s22
E: s22 | **W:** www.denr.nt.gov.au
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Arnhemica House
Level 1 16 Parap Road
Parap NT 0820
Postal address: GPO Box 3675
Darwin NT 0801
Tel: s22
Fax: s22
Email: s22 @nt.gov.au
Web: www.ntepa.nt.gov.au

Our ref: NTEPA2018/0038-009

Hon Karen Andrews MP
Minister for Industry, Science and Technology
GPO 2013
Canberra ACT 2601

Dear Hon Karen Andrews MP

**RE: EQUATORIAL LAUNCH AUSTRALIA – ARNHEM SPACE CENTRE,
NORTHERN TERRITORY – ENVIRONMENTAL ASSESSMENT**

A Notice of Intent (NOI) for the Arnhem Space Centre (the Proposal) was submitted to the Northern Territory Environment Protection Authority (NT EPA) on 5 October 2018 for consideration under the Northern Territory Environmental Assessment Act 1982 (EA Act). The Proposal is to construct, develop and manage a multi-user, commercial space launch centre on the Dhupuma Plateau, located approximately 650km east of Darwin and 30km south of Nhulunbuy in the Northern Territory.

I understand the Australian Government Department of Industry, Innovation and Science (DIIS) Australian Space Agency (ASA) is responsible for authorising Australian space activities under the Space Activities Amendment (Launches and Returns) Act 2018, and administering the Space Activities Regulations 2001. There is provision under this Act for the responsible Australian Government Minister to grant a licence for a launch facility and be satisfied that all necessary environmental approvals are obtained and an adequate environmental plan for construction and operation of the launch facility have been made. For launches above 100km altitude, the ASA issues a Space Licence for the site and a Space Permit for each launch.

I am writing to inform you that the NT EPA has considered the NOI and decided that the Proposal is unlikely to have a significant effect on the environment and does not require assessment under the EA Act. This decision is in accordance with clause 8(2)(b) of the Environmental Assessment Administrative Procedures 1984 (EAAP). I have enclosed a Statement of Reasons supporting this decision. The Statement of Reasons will be made available on the NT EPA website.

Please be advised that this decision strictly applies to the area and activity outlined in the NOI. Any changes to the proposal, including rocket or fuel type, number or timing of launches per year or the number or area of launch pads, must be referred to the NT EPA in accordance with clause 14A of the EAAP (or subsequent legislation if applicable).

While the NT EPA has decided that the Proposal does not require assessment under the EA Act, there are potential impacts and risks to the environment that should be

addressed in the management plans to minimise potential impacts on biodiversity and sacred sites. The NT EPA makes the following recommendations, which build on existing commitments, for your consideration. The NT EPA recommends that:

- The Proponent develop and implement a Construction and Operational Environmental Management Plan (COEMP) reflecting the Proponent's commitments. The COEMP will need to address the appropriate environmental management practices that will be followed during the facility's construction, operation and decommissioning. The Proponent must ensure that the COEMP:
 - applies best practice environmental management for the facility;
 - implements the commitments made by the proponent;
 - complies with NT environmental legislation;
 - addressed environmental risks associated with the facility to the extent that they are properly managed throughout its life cycle;
 - is developed with the same elements of an EMS as outlined in AS/MZS ISO 14000 series.

The COEMP must be made available for audit and inspection by DENR officers at any time upon request.

- a Hazard and Operability Study (HAZOP) and Hazard Identification (HAZID) be conducted prior to construction and during the operation of the facility. A HAZOP primarily focuses on operational hazard issues, HAZID focuses on the identification of hazards especially with respect to any potential major accidents which may pose a risk to the environment or human health
- modelling predictions and risks to soil, surface water, groundwater and vegetation in the vicinity of the launch sites from exhaust gases released during launches are validated, and management process adapted accordingly
- monitoring and appropriate management responses to noise are provided in operational management plans
- all reasonable and practical measures be taken to use existing tracks during retrieval operations
- payloads be rapidly retrieved from marine environments to reduce the risk of entanglement by marine megafauna in payload parachutes
- any clearing comply with NT Land Clearing Guidelines
- that the proponent commits to public reporting, including: notification under section 14 of the WMPC Act and public notification in the event of any failure to retrieve fallen debris or rocket components associated with launches (including failed launches).

These requirements are aimed at minimising the environmental and health risks from the facility.

The Proponent has been advised that, pursuant to the requirements of section 14 of the Waste Management and Pollution Control Act 1998 the operator must notify the NT EPA of any incident that causes, or threatens to cause, pollution resulting in material environmental harm or serious environmental harm, by notifying the NT EPA by phone on 1800 064 567 and then emailing the notification at pollution@nt.gov.au, as soon as practicable after (and in any case within 24 hours after) first becoming aware of the incident. The operator must include the following information in the notification:

- when the incident was detected and by whom;
- the date and time of the incident;

- the actual and potential causes and contributing factors to the incident;
- the risk of environmental harm arising from the incident;
- the action(s) that have or will be undertaken to mitigate any environmental harm arising from the incident;
- corrective actions that have or will be undertaken to ensure that further incidents do not reoccur;
- if no action was taken, why no action was taken; and
- a date when an incident investigation report will be submitted to the NT EPA.

Reportable incidents include but are not limited to failure to retrieve fallen debris or rocket components associated with launches (including failed launches), conflagrations and off site waste discharges.

Further comments have been provided by other Northern Territory advisory agencies in relation to other potential impacts and risks to the environment. The comments also provide information (but not all) regarding considerations under other Northern Territory legislation for your Department's information. The Proponent was advised by the NT EPA that the attached comments should be addressed prior to construction works commencing.

Any queries in relation to this matter should be directed to [s22](#)
Environmental Assessments on [s22](#)

Director

Yours sincerely



DR PAUL VOGEL AM MAICD
Chairman

14 October 2019

Attached:

- *Statement of Reasons*
- *NTG Advisory Agency comments*

Pages 6-17 have been removed from Document 6 as irrelevant information
under section 22 of the *Freedom of Information Act 1982*

Summary of comments received on the Notice of Intent

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
1	Department of the Attorney-General and Justice – NT WorkSafe 19/10/2018	<p>It is noted that the dangerous goods have been addressed and the potential need for licenses recognised.</p> <p>One area that will need further consideration is the need for Schedule 11 notification under Chapter 7 of the <i>Work Health and Safety (National Uniform Legislation) Act</i> [WHS Act] and Major Hazard Facility notification under Chapter 9 of the WHS Act.</p> <p>Should the safety risk be considered high enough and Hazardous Chemical threshold (i.e. Schedule 15) there is potential requirement for a MHF Licence and the development of a Safety Case.</p> <p>This process may take some time and should be considered early in the projects development phase. Hence our request for early discussions.</p> <p>NT WorkSafe is keen to discuss the specific issues with the proponent to ensure any licensing requirements are meet effectively.</p> <p>It is expected that safety requirements will need to be demonstrated to NT WorkSafe prior to commencement of launch activities (including transport of Dangerous Goods).</p> <p>Otherwise NT WorkSafe have no specific comment to make at this time.</p>	Noted. This is a matter for the Proponent to address with the NT WorkSafe.
2	Department of Health – Environmental Health Branch 22/10/2018	<p>DoH Health requirements for mining and construction projects shall apply to this project: https://nt.gov.au/property/building-and-development/health-and-safety/health-requirements-mining-construction-projects</p> <p>Additional requirement will be the <i>Radiation Protection Act</i> especially if the intention is to launch satellites that contain a Radioisotope Thermoelectric Generator (RTG), or if instruments generating ionising radiation are intended to be used onsite.</p>	<p>Noted. These are matters for the Proponent to address with the Department of Health.</p> <p>NOI states Project activities do not involve sources of radiation.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
3	Department of Tourism and Culture – Parks, Wildlife and Heritage Division 25/10/2018	The Heritage Branch are satisfied that all heritage and archaeological issues have been adequately addressed for this project. Initially we had some concerns about the terrestrial area of the project and the potential for Aboriginal archaeological sites to be disturbed, but we have now done further research and believe that the proponents have addressed our concerns and the likelihood of disturbance to artefacts is now considered minimal. They have also included mitigative measures in the event that archaeological sites are discovered and we are content with that.	Noted.
4	Aboriginal Areas Protection Authority 29/10/2018	The Aboriginal Areas Protection Authority recommends that an Authority Certificate be obtained before any ground disturbing works commence.	Noted. This is a matter for the Proponent to address with AAPA.
5	Department of the Chief Minister – Economic and Environment Policy 30/10/2018	<p>Economic Impacts</p> <p>The NOI notes that the project can potentially provide economic benefit to the region in the form of revenue and employment to the community as the bauxite and alumina industry slows down in the next 10 years. The proponent notes that the project does not interfere with local road traffic, communities, business operations or workforce. The proponent has been working collaboratively with the stakeholder most likely to be impacted – the NT Seafood Council -- to ensure that there are long lead times for launches so that they do not negatively impact fishing operations in the area. DCM notes that the proponent should continue to monitor and ensure that impacts remain minimal. Aboriginal organisations have also been consulted in detail on a wide range of matters, including economic benefits, though as noted under Social Impacts, the NOI needs more work in regard to results of consultations.</p> <p>Environment Impacts</p> <p>DCM notes that the proponent plans to use modern and greener propellants which are expected to have less environmental impact.</p> <p>The proponent noted that the emissions from each rocket is expected to be 791kg or 0.29% of all NT emissions (excluding airplane emission), which is significantly less than the emissions from an Air North flight from Darwin to Gove (14,220kg). However, they also stated that carbon offsets had not yet been considered. DCM recommends that the proponent consider options to offset these emissions as part of their business model to be better prepared for their anticipated business growth and compliance with the introduction of an offsets policy in the near future.</p>	<p>Noted.</p> <p>ELA has committed to developing a Social Impact Analysis, Social Impact Management Plan and Environment Management Plan for the Proposal.</p> <p>Noted.</p> <p>Noted.</p> <p>Matters for the Proponent to consider.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		<p>The proponent noted that trucks will be used to transport 1 ML of water per year to the launch pad to wash off the residue. It is not clear on the distance the trucks need to travel (i.e. from the nearby bore or from further). Additionally, it is not clear how the residue/waste will be disposed of.</p> <p>DCM suggests that the proponent consider options to keep emissions to a minimum either by shorter transport distances or alternative modes of transporting the water safely and report on its plans to manage the residue/waste from the launching of the rockets.</p> <p>Social Impacts</p> <p>DCM notes that while preliminary discussions with the proponent have been productive, the analysis of potential social impacts is not reflected in the NOI. Greater depth of analysis should be demonstrated in the future social impact assessment and management planning, particularly regarding community engagement outcomes, the community benefits of the Project and the consideration of culture.</p> <p>The following examples demonstrate some areas in the NOI which would benefit from more in-depth analysis in future.</p> <p><i>Culture</i></p> <p>DCM notes that while potential disturbance to Aboriginal sacred sites by project activities is identified as a potential impact (pg. 85), broader overarching cultural considerations should be included in future assessment and management plans, noting the location of this project and the strong community culture.</p> <p><i>Consultation</i></p> <p>DCM advises the NOI and future documents would benefit from the inclusion of further detail and clarity regarding the outcomes of community and stakeholder engagement undertaken (beyond simply stating who carried out the engagement and with whom).</p> <p><i>Benefit and Social License to Operate</i></p> <p>Benefits of the Project are listed in the NOI (pg. 5), but not adequately expanded upon. While small scale benefits such as short term employment for local construction workers are identified (pg. 21), DCM suggests the proponent consider the role of corporate social responsibility in future</p>	<p>Comments regarding distances and emissions are matters for the Proponent to consider further. Further information was requested about traffic impacts (RFI 1, item 6).</p> <p>Further information was requested regarding water management (RFI 1, item 1).</p> <p>Noted. Further information was requested (RFI 1, item 6).</p> <p>ELA has committed to developing a Social Impact Analysis, Social Impact Management Plan and Environment Management Plan for the Proposal.</p> <p>Refer to Item 16 below.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		and the importance of establishing and maintaining a social license to operate in East Arnhem through further commitments relating to factors such as education and community involvement.	
6	Department of Trade, Business and Innovation – Strategic Policy and Research (SPAR) 31/10/2018	The Department of Trade, Business and Innovation (DTBI) does not have any issues with this Notice of Intent. However, the Department is of the view that an economic impact assessment of the project on the Territory and the local regional economy would further inform and facilitate the environmental assessment process.	Noted.
7	Department of Tourism and Culture – Tourism NT 31/10/2018	<p>From a tourism perspective this project is supported. Tourism NT understands there are plans in the future to develop tourism associated with the project, however, no further details are known by this Department.</p> <p>The proponent notes in the NOI that they have undertaken regular consultation with Developing East Arnhem Ltd, the NTG, the community, NLC, NT Seafood Council and Traditional Owners. This engagement is welcome. It is recommended that the proponent also consider engaging with the Amateur Fishermen’s Association of the Northern Territory (AFANT) and the Northern Territory Guided Fishing Industry Association (NTGFIA) as they continue the development of this project. The website for AFANT can be accessed at http://afant.com.au and the NTGFIA can be accessed at http://ntgfia.com.au.</p>	Noted.
8	Department of Environment and Natural Resources – Environmental Operations 1/11/2018	<p>Soil, vegetation, surface water and ground water</p> <p>The proponent has provided basic information indicating a number of areas of uncertainty regarding the risks to soil, surface water, groundwater or vegetation in the vicinity of the launch sites from the exhaust gasses released during launches. The NOI outlines the adaptive processes proposed to assess and mitigate site and stormwater contamination following construction and operation of the facility. However while adaptive management processes will be necessary to refine environmental management practices at the launch site the proponent must also demonstrate that the activities will be appropriately located, designed and the risks mitigated to prevent environmental harm.</p> <p>The proponent should provide further information to address the current uncertainties and describe the mitigation measures to protect vegetation, surface water and groundwater in the areas immediately surrounding the launch facility. This should include:</p>	<p>Requested further information (RFI 1, Items 1 & 2).</p> <p>ELA has committed to an Environment Management Plan, including refining locations of monitoring for the Proposal. ELA is reminded of its obligations under the Waste Management Pollution Control Act 1998 and</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		<ol style="list-style-type: none"> 1. A quantitative assessment of the distribution of relevant potential contaminants in the area surrounding the launch pads and the related dimensions of the impermeable area (the 'containment area') required to capture all stormwater from potentially contaminated areas; 2. A stormwater management plan detailing infrastructure, equipment and measures to prevent the discharge of contaminants in stormwater captured from potentially contaminated areas including measures to: <ol style="list-style-type: none"> I. Capture, store, treat, and reduce the volume of contaminated stormwater; II. Reliably contain stormwater from potentially contaminated areas following a launch until such time that stormwater quality from potentially contaminated areas is adequate to permit discharge to the environment: the proponent has committed to containing water from the hardstand areas up to a 1 in 2 year rainfall event, however the duration of the design rainfall event has not been specified. This commitment lacks meaning in terms of the likely frequency and volumes of overflows of contaminated stormwater. The proponent should develop a water balance model to determine the design attributes of the stormwater storage/evaporation basins necessary to accommodate the stormwater generated through successive rainfall events while accounting for the effect of evaporation in reducing the volume of stored stormwater. The design process should achieve an appropriate frequency of overflows; III. Ensure that stormwater from potentially contaminated areas is 'clean' prior to any direction of stormwater from these areas to the environment; and IV. Ensure appropriate off-site disposal of contaminated stormwater and associated waste materials. 3. Plans for monitoring of soil and stormwater, from areas inside and outside of the launch pads to detect any potential physical-chemical and toxicant contamination including details of the appropriate: <ol style="list-style-type: none"> I. Sampling locations, sampling frequency and timing; II. Water quality parameters and associated trigger levels for further investigation; III. Mitigation methods to address contaminant issues that may arise during operation; and IV. Reporting regime. 	<p>other applicable legislation.</p> <p>The Proponent has committed to remediating the site.</p> <p>A stormwater management plan was provided and the NOI includes a commitment to adaptive management processes.</p> <p>In addition, the launch facility would be regulated by the Australian Government.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		<p>Fallen debris and rocket components</p> <p>The collection of rocket stages and the debris from unsuccessful launches has been suitably identified by the proponent as being very important to retain the current values of the relevant areas. It appears that helicopter retrieval of these items is preferable to any removal methods that create vehicle tracks or other forms of access that cause vegetation disturbance and erosion.</p> <p>The proponent should commit to public reporting including notification under section 14 of the <i>Waste Management and Pollution Control Act</i> and the public in the event of any failure to retrieve fallen debris and rocket components associated with launches (including failed launches). The proponent should also consider the potential to improve the current condition of land areas relevant to the launch facility, by implementing a program to assist clean-up and removal of existing waste and litter.</p>	<p>Further information was requested (RFI 1 & 2). Response to RFI 1 discussed these matters.</p> <p>Refer to items 15 & 16 below</p>
9	<p>Power and Water Corporation 2/11/2018</p>	<p>PWC are currently planning a drilling program in Yirrkala to support the Housing Program. In order for PWC to make an informed comment on the above proposed project we require the following information:</p> <ul style="list-style-type: none"> • The exact location of the bores ELA intend to extract water from for both construction and operation of the facility; and • Estimated vol. of water required for construction and per launch/campaign. <p>This information will enable PWC to understand potential impacts to our current and future bores.</p>	<p>Requested further information (see item 17 below).</p>
10	<p>Department of Infrastructure, Planning and Logistics - Transport 7/11/2018</p>	<p>The various risks associated with traffic, nor the effect of traffic impacts on the existing road network infrastructure and road user safety has not been addressed within the NOI. Therefore the information provided does not allow for adequate comment from this Department.</p> <p>The Department recommends a Traffic Impact Assessment (TIA) be provided. A TIA is mandatory to assure the road authority can measure the proponent's acknowledgement of the risks associated with the works impact on NTG Roads, infrastructure and road safety.</p> <p>A TIA will be required in accordance with AUSTRROADS Guide to Traffic Management Part 12: Traffic Impacts of Development. The TIA is to include details on access, vehicle types, volumes of existing vehicles and increased traffic and other relevant matters, including a risk assessment to reflect how all roads and infrastructure will be affected.</p>	<p>Requested further information.</p> <p>Refer to item 14 below.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		<p>A Traffic Management Plan (TMP) will also be required to be developed to meet the requirements of, but not limited to; the NT Control of Roads Act, NT Traffic Act, Development Guidelines and Permit to Work within NTG Road.</p> <p>The TIA and TMP will assist DIPL in making an appropriate assessment of how the transportation to and from the site will affect the existing road network and road user safety.</p>	
11	<p>Department of Environment and Natural Resources – Rangelands 8/11/2018</p>	<p>The Flora and Fauna, Rangelands, Water Resources and Bushfires NT Divisions of the Department of Environment and Natural Resources provide the following comments:</p> <ul style="list-style-type: none"> • The Flora and Fauna Division agrees with the proponent's analysis in the NOI of the occurrence of threatened species within the proposal area. Given the relatively small area of land that is proposed to be cleared (5.3 ha), the risk of threatened species being significantly impacted by vegetation clearing for the proposal is considered low. <p>For the recovery of spent rocket stages, the NOI states that a track will be maintained between the proposal area and the terrestrial landing zone, and tracks will be created to retrieve spent stages and remediated following each retrieval, where necessary. No detail of the proposed remediation is provided. With up to 60 launches per year, there is the potential for a significant amount of disturbance within the terrestrial landing zone from retrieval operations. This enhances the risk of degradation of vegetation within the landing zone. Vehicle movements within the retrieval area should be restricted to existing tracks where possible to minimise the potential for disturbance and degradation.</p> <p>The Flora and Fauna Division disagrees with the statement in the NOI that there are no significant marine environmental values in the area. The coastal and marine environments where payloads are expected to return are known for large numbers of nesting waterbirds and migratory shorebirds, extensive seagrass beds that are important foraging grounds for green turtles and dugongs, and waters that support listed species such as freshwater sawfish, seahorses, and pipefish. While the potential impacts to these values from payload return and retrieval are likely to be minimal, the timely recovery of payloads from Gulf waters is essential. If not retrieved within a short timeframe, parachutes present a significant risk of entanglement for marine megafauna.</p> <ul style="list-style-type: none"> • The Land Assessment Branch note that there are natural drainage features and riparian vegetation on the dissected lower slopes and recommends that the proponent commits to implementing buffers as recommended in the Land Clearing Guidelines (2010). 	Requested further information (RFI 1 to 6).

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	Environment Assessment (EA) Response
		<ul style="list-style-type: none"> • For all proposals involving earth-disturbing activities, the Land Management Unit provides the following advice. • To prevent soil loss from the site and deposition offsite, minimisation of associated risks to water quality and air quality, and to ensure satisfactory stabilisation of the site at completion of works, preparation and implementation of an Erosion and Sediment Control Plan (ESCP) is recommended. The ESCP should: <ul style="list-style-type: none"> ○ Be prepared by a suitably qualified and experienced professional in erosion and sediment control planning; and be reviewed and approved by a Certified Professional in Erosion and Sediment Control (CPESC). ○ Be prepared in accordance with the IECA Best Practice Erosion and Sediment Control Guidelines 2008 (or higher standard). ○ Be the final environmental management plan to be prepared (as it relies on completion of final design) and be a stand-alone document which contains all necessary information to facilitate its implementation without requiring the user to reference other documents. ○ Be cross-referenced with other relevant environmental management plans to ensure consistency (e.g. plans relating to Water Management, Stormwater Management, Site Rehabilitation, etc.). ○ Include details of both temporary and permanent erosion and sediment control methods and treatments to be implemented for all stages of the project (pre, during and post works). ○ Comprise an over-arching strategic document outlining the principles, practices and methods to be implemented, as well as site-specific dimensioned plans identifying the location of works and prescribed controls; and be accompanied by relevant Standard Drawings and Construction Notes. ○ Include information regarding proposed timing and staging of works, site manager contact details, maintenance and monitoring requirements, and reporting procedures. <p>Implementation of the CPESC-approved ESCP should be regularly monitored by a suitably qualified third party auditor, to the satisfaction of the Consent Authority.</p> <p>Information regarding best practice management can be obtained from the following sources:</p>	

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment		Environment Assessment (EA) Response											
		<table border="1"> <thead> <tr> <th data-bbox="602 285 1243 347">Source</th> <th data-bbox="1243 285 1733 347">Website</th> </tr> </thead> <tbody> <tr> <td data-bbox="602 347 1243 443">International Erosion Control Association (IECA) Australasia</td> <td data-bbox="1243 347 1733 443">www.austieca.com.au</td> </tr> <tr> <td data-bbox="602 443 1243 539">Department of Environment and Natural Resources (DENR)</td> <td data-bbox="1243 443 1733 539">https://nt.gov.au/environment/soil-land-vegetation</td> </tr> <tr> <td data-bbox="602 539 1243 699">Department of Infrastructure Planning and Logistics (DIPL)</td> <td data-bbox="1243 539 1733 699">https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/environmental-management</td> </tr> <tr> <td data-bbox="602 699 1243 818">Leading Practice Sustainable Development Program for the Mining Industry (Department of Industry, Innovation and Science)</td> <td data-bbox="1243 699 1733 818">http://www.industry.gov.au/resource/Programs/LPSD/Pages/LPSDhandbooks.aspx</td> </tr> <tr> <td data-bbox="602 818 1243 885">Society for Ecological Restoration</td> <td data-bbox="1243 818 1733 885">http://www.ser.org/page/SERDocuments</td> </tr> </tbody> </table>	Source	Website	International Erosion Control Association (IECA) Australasia	www.austieca.com.au	Department of Environment and Natural Resources (DENR)	https://nt.gov.au/environment/soil-land-vegetation	Department of Infrastructure Planning and Logistics (DIPL)	https://transport.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-specifications/environmental-management	Leading Practice Sustainable Development Program for the Mining Industry (Department of Industry, Innovation and Science)	http://www.industry.gov.au/resource/Programs/LPSD/Pages/LPSDhandbooks.aspx	Society for Ecological Restoration	http://www.ser.org/page/SERDocuments	
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		<ul style="list-style-type: none"> All land in the Northern Territory is subject to the <i>Weeds Management Act</i> (the WM Act). The WM Act states that the owner and occupier of land must: (a) take all reasonable measures to prevent the land being infested with a declared weed; (b) take all reasonable measures to prevent a declared weed or potential weed on the land spreading to other land. <p>The WM Act enables the following weed declarations: Class A (to be eradicated); Class B (growth and spread to be controlled); Class C (not to be introduced into the NT); All Class A and B weeds are also Class C.</p> <p>There are specific management obligations applicable to declared weeds that are subject to statutory weed management plans. These obligations apply to all landholders and occupiers and it is essential that they are considered and incorporated into planning, construction and operational phases. Copies of these weed management plans can be found at: https://nt.gov.au/environment/weeds/weed-management-planning.</p>													

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Item #	Comments from	Comment	Environment Assessment (EA) Response
		<p><i>Preventing Weed Spread is Everybody's Business</i> (available online) is a document providing an overview of weed spread pathways and actions that can be implemented by land holders and occupiers to reduce the risk of weed spread.</p> <p>The Weed Management Branch is satisfied that the proposed utilisation of a wash-down area on the nearby mine site adequately addresses concerns relating to the introduction of weeds to an otherwise weed free area.</p> <ul style="list-style-type: none"> • The Water Resources Division is satisfied that the proponent has adequately identified risks related to water and water management in the NOI. • Bushfires NT reminds the property owner that under the <i>Bushfires Management Act</i> the property owner/lessee are responsible for managing fire on their property. <p>The owner/lessee is reminded that the property falls within the Arnhem Fire Management Zone and that when a Fire Danger Period has been declared, no burning may take place except where a permit to burn has been obtained from a Fire Control Officer or a Fire Warden.</p>	
13	NT Police, Fire and Emergency Services 8/11/2018	From a Northern Territory Police, Fire and Emergency Services perspective, security of the site, conduct of worker's off duty in Nhulunbuy, increased traffic including transport of explosives and emergency management aspects including weather events and launch complications all require ongoing consultation. Once confirmation of approval is provided, it's requested that the relevant points of contact are identified and an introductory meeting is held to discuss these and any other concerns.	Noted. This is a matter for the Proponent to discuss with NT Northern Territory Police, Fire and Emergency Services.

Northern Territory Government advisory bodies with no comment:

Department of Primary Industry and Resources

Department of Housing and Community Development

Land Development Corporation

Summary of comments received on the further information request (1) for the Notice of Intent – December 2018

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
14	Department of Infrastructure, Planning and Logistics - Transport 25/01/2019	<p>Traffic Engineers have reviewed the document and have determined there is inadequate information regarding traffic and the associated risks to the road infrastructure and public safety. DIPL requires further information to be able to adequately assess the traffic risks.</p> <p>Whilst the proponent states that the impact to road users and local communities are low, there is limited information for DIPL to quantify and assess this to determine if the road surfaces and substrate are adequate for the intended purpose.</p> <p>The Central Arnhem Road is a mixture of single and double sealed surfaces and is subject to seasonal restrictions and closures including weight restrictions, that may pose a significant risk to the road infrastructure and road users, which has not been considered in the proposal.</p> <p>A Traffic Impact Statement (TIA) and Traffic Management Plan (TMP) is required to be submitted to DIPL for review and assessment and should contain, but not be limited to, the following information:</p> <ul style="list-style-type: none"> - The Construction and Operation phase of the project should be separated and describe the vehicle types, quantities, volume of proposed traffic, volume of existing traffic and proposed routes - The start and end of all intended routes needs to be clearly articulated and noting which NTG roads will be used for transportation – this includes contingency plans for seasonal road restrictions that may limit types and weight of vehicles - The types of material being transported and intended weights of the loads to determine if a permit will be required - The TIA should include a risk assessment that includes the risk to road infrastructure and visitor safety and associated contingency alternatives/management actions. - As per previous comments, the “<i>AUSTROADS Guide to Traffic Management Part 12: Traffic Impacts of Development</i>” provides guidance in the relevant matters to be considered in the TIA and TMP 	Noted. For action by the Proponent.

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		The Department is willing to work with the proponent directly to assist in development of the required information to allow adequate review and assessment of the Traffic Impacts.	
15	Department of Environment and Natural Resources – Land Development Coordination 25/01/2019	<p>Flora and Fauna Division</p> <p>The Flora and Fauna Division considers that the risk of significant impact to threatened species and marine biodiversity values from the proposal remains low.</p> <p>In response to the Division's recommendation that, where possible, vehicle movements should be restricted to existing tracks, Equatorial Launch Australia (ELA) confirmed that vehicle movements would likely still be required beyond existing access tracks during retrieval operations. The Flora and Fauna Division reiterates its original recommendation that all reasonable and practical measures be taken to use existing tracks during retrieval operations.</p> <p>In response to the risk of marine megafauna entanglement from payload parachutes, the Flora and Fauna Division is generally satisfied with ELA's proposed retrieval measures. The Division considers that if payloads are rapidly retrieved, ELA's proposed fauna monitoring and detection program would be unnecessary.</p> <p>Water Resources Division</p> <p>The Water Resources Division is satisfied that the proponent has adequately identified risks related to water and water management.</p>	<p>Noted and discussed in SOR. Refer to item 20 below.</p> <p>Noted and discussed in SOR – with reference to waters in the NT jurisdiction.</p> <p>Noted</p>
16	Department of the Chief Minister – Economic and Environment Policy 25/01/2019	<p>DCM is satisfied that the Proponent has a plan to develop a sound Social Impact Analysis and Social Impact Management Plan for their project upon the outcome of the NOI.</p> <p>The Proponent should consider options to offset emissions from rocket launches.</p> <p>Clarity is needed regarding how waste water used to wash residue will be disposed of, and distances trucks used to transport water will have to travel. Transport should be minimised to reduce emissions.</p>	<p>Noted.</p> <p>For the Proponent's consideration.</p>
17	Power and Water Corporation 30/01/2019	No further comments.	Noted

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
18	Department of Environment and Natural Resources – Environmental Operations 31/01/2019	<p>The proponent has provided some additional information to characterise the risks relating to exhaust gas fallout and potential impact on vegetation and stormwater in the vicinity of the launch pads. The Potential for toxicant release associated with the activity may be significant with the proponent estimating that HCL emissions from 60 Launches per year will exceed 19 tonnes of hydrogen chloride, a strong acid. FAA (1996) indicates that much of the fallout is likely to be deposited close to the launch pad. The proponent has committed to containing stormwater from the launch pads up to a 46.2mm rainfall event, and therefore stormwater is likely to discharge from the stormwater containment areas on a regular basis to the environment.</p> <p>However the proponent has not adequately responded to the vast majority previous comments provided by Operations (below) as necessary to manage the risks associated with stormwater contamination. While the Preliminary Land Suitability Assessment and Conceptual Strategy for Storm Water Management relates to potential hydrological and erosion & sediment control matters this plan does not address risks relating to stormwater quality. The proponent has not committed to measures to treat the stormwater prior to discharge to the environment.</p> <p>Additionally the proponent has not provided a quantitative basis to demonstrate that stormwater from land outside the stormwater containment areas will not cause impact on aquatic ecosystems; with reference to relevant factors including likely fallout rates and distribution and the potential impact of fallout on the pH of stormwater runoff.</p> <p>The lack of a stormwater quality management plan for the activity provides for significant uncertainty regarding the level of potential impact from the activity and the mitigation measures that will be applied. The proponent has also not responded to the recommendations below regarding fallen debris and rocket components. It is therefore not possible to determine whether the mitigation measures meet the General Environmental Duty.</p> <p>Operations recommends that the proponent addresses the issues we have identified, to enable appropriate assessment of the risks and mitigation measures and resulting 'significance' of the potential impacts from the proposed activity.</p>	Requested further information (RFI 2, item 1)

Summary of comments received on the further information request (2) for the Notice of Intent – July/August 2019

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
19	Department of Health – Environmental Health Branch 17/07/2019	No further comments.	Noted
20	Department of Environment and Natural Resources	<p>The Department of Environment and Natural Resources (DENR) has assessed the information contained in the above application and provides the following comments:</p> <p><u>Flora and Fauna Division</u> Advice from the Flora and Fauna Division previously concluded that the risk of significant impacts to threatened species and marine biodiversity values from the proposal was low. The additional information has not changed this advice or introduced new risks that may significantly impact on the values associated with two of the Northern Territory Environment Protection Authority's (NT EPA) environmental factors - Terrestrial Flora and Fauna; and Marine Flora and Fauna.</p> <p><u>Recommendations</u> While the risks to biodiversity values are considered low, the Division reiterates its previous advice which included the following recommendations:</p> <ul style="list-style-type: none"> • that all reasonable and practical measures be taken by the proponent to use existing tracks during retrieval operations • that payloads be rapidly retrieved by the proponent from marine environments to reduce the risk of entanglement by marine megafauna in payload parachutes. <p><u>Environment Division</u> The application has been considered with respect to responsibilities under the <i>Waste Management and Pollution Control Act 1998</i> (WMPC Act).</p>	<p>Noted</p> <p>Noted and advice included in the Letter to Proponent.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		<p>The following comments highlight areas that need to be addressed by the proponent to mitigate environmental impacts from the proposal.</p> <p>Environmental Authorisations Branch Based on the further information request response there appears to be no new information that would trigger requirements for licensing:</p> <p>An Environment Protection Licence (EPL) is required for the operational collecting, transporting, storing, recycling, treating or disposing of a listed waste on a commercial or fee for service basis, other than in or for the purpose of a sewage treatment plant, in accordance with section 30(1) of the WMPC Act.</p> <p>An Environment Protection Approval (EPA) is required for: 'constructing, installing or carrying out works in relation to premises, other than sewage treatment plants, for the storage, recycling, treatment or disposal of listed wastes on a commercial or fee for service basis', in accordance with section 30(2) of the WMPC Act.</p> <p>The NOI does not appear to trigger a requirement for an EPL or an EPA under the WMPC Act.</p> <p>In all operations and at all times there is a need to ensure compliance with section 12 and section 14 of the WMPC Act.</p> <p>Under the <i>Water Act 1992</i>, migration of any wastewater to land or water will trigger requirements for an application for a Waste Discharge Licence (WDL), in accordance with section 16 of the <i>Water Act 1992</i>.</p> <p>The NOI does not appear to trigger a requirement for a WDL under the <i>Water Act 1992</i>.</p> <p>The proponent must not, unless authorised to do so, cause either directly or indirectly, waste to come into contact with water or water resources to be polluted.</p> <p>Environmental Operations Branch The following documentation was provided to Environmental Operations for comment:</p> <ul style="list-style-type: none"> • Air Emissions Analysis of the Black Brant IZ Launch Vehicle for the Northern Territory EPA (Shoal, June 2019) • Air Quality Assessment of a commercial spaceport, Northern Territory (Katestone, July 2019) 	Noted

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		<ul style="list-style-type: none"> • ELA NOI Response to NT EPA third RFI - June 2019 [01 draft 03] • ELA NOI response to NT EPA third RFI - Preamble [01 draft 01] <p>These documents have been reviewed in the context of Environmental Operations' previous comments. In addition, the Director of Operations participated in a meeting on 2 August 2019 with the proponent and Environmental Assessment Branch staff. Key matters raised by Environmental Operations Branch are included below.</p> <p><u>Air Emissions and ground-concentration levels</u></p> <p>As previously requested, the NT EPA is interested in offsite impacts and how air emissions meet NSW/Victorian impact assessment criteria (criteria). The difference between the Victoria (class 2 and class 3 pollutants) and NSW criteria is that Victoria uses 3 minute averages which equates to 1 hour averages for NSW.</p> <p>Table 1 of the Air Quality Assessment (Katestone Environmental Pty Ltd) must be amended to report on criteria applicable in the Territory (NSW criteria). DENR need to be able to compare air emissions modelling results to the NSW criteria. Table 10 is required to be updated to include predicted ground level concentrations against the NSW criteria and for each sensitive receptor location eg Garma Festival Site/sacred site, Gulkula mine camp, nearby public road, Yirrkala and any other sensitive receptors within 10km of the proposal site.</p> <p>The proponent stated that the NSW/Victorian criteria will likely be exceeded. Justification and rationale for the potential exceedances is to be discussed (eg the temporary nature of emissions, dispersing in upper layers, the short term nature of any impact, risks and the like).</p> <p>The proponent is to clarify which aluminium species are emitted from proposed rockets and if aluminium chloride is a constituent that will be emitted (and if so, provide an indication of potential concentrations and potential impacts).</p> <p>The proponent stated that NASA does not see sounding rockets as having a significant environmental impact. This information should be provided to the NT EPA to consider as part of their assessment.</p> <p><u>Soil, vegetation, surface water and ground water</u></p> <p>The proponent has provided basic information indicating a number of areas of uncertainty, including risks to soil, surface water, groundwater and vegetation in the vicinity of the launch sites from exhaust gases released during launches. The NOI outlines adaptive processes proposed to assess and mitigate site and stormwater contamination following construction and operation of the facility.</p>	<p>Information provided following the meeting.</p> <p>Noted.</p> <p>Information provided following the meeting.</p> <p>Not provided.</p> <p>Adaptive management processes are proposed including updating and adapting the Environment</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		<p>However, while adaptive management processes will be necessary to refine environmental management practices at the launch site, the proponent must also demonstrate that the activities will be appropriately designed, located and mitigate risks to prevent environmental harm.</p> <p>The proponent should address the current uncertainties and describe proposed mitigation measures to protect vegetation, surface water and groundwater in the areas immediately surrounding the launch facility. This should include:</p> <ol style="list-style-type: none"> 1) A quantitative assessment of the potential distribution of relevant contaminants in the area surrounding the launch pads and the related dimensions of the impermeable area (the 'containment area') required to capture all stormwater from potentially contaminated areas 2) A stormwater management plan detailing infrastructure, equipment and measures to prevent the discharge of contaminants becoming entrained in stormwater within the potentially contaminated areas, including measures to: <ol style="list-style-type: none"> a) capture, store, treat, and reduce the volume of contaminated stormwater b) reliably contain stormwater from potentially contaminated areas following a launch until such time that stormwater quality within potentially contaminated areas is of a quality suitable for discharge to the environment (ie 'clean'). The proponent has committed to containing water from the hardstand areas in up to a 1 in 2 year rainfall event, however the duration of the design rainfall event has not been specified. This commitment lacks meaning in terms of the likely frequency and volumes of overflows of contaminated stormwater. c) the proponent should develop a water balance model to determine the design attributes of the stormwater storage/evaporation basins necessary to accommodate the stormwater generated through successive rainfall events, while accounting for the effect of evaporation in reducing stormwater volume. The design process should define an appropriate frequency of overflows. d) ensure appropriate off-site disposal of contaminated stormwater and associated waste materials. 3) plans for monitoring of soil and stormwater, from areas inside and outside of the launch pads to detect any potential physical-chemical and toxicant contamination, including details of the appropriate: <ol style="list-style-type: none"> a) sampling locations, frequency and timing b) water quality parameters and associated trigger levels for further investigation 	<p>Management Plan (including monitoring, air, soil, water, aquatic species) and a Stormwater Management Plan.</p> <p>Ground level concentrations were provided. Commitments are provided in the NOI.</p> <p>Not provided.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		<p>c) mitigation methods to address contaminant issues that may arise during operation</p> <p>d) reporting regime.</p> <p>The Air Quality Assessment (Katestone Environmental Pty Ltd) states:</p> <ul style="list-style-type: none"> • The estimated concentration of aluminium in water is predicted to comply with the freshwater quality guideline of 0.8µg/L beyond approximately 1.5km from the launch site under the normal launch scenario. • The estimated concentration of aluminium in water is predicted to exceed the drinking water quality guideline of 200µg/L within approximately 3km from the launch site under a worst-case conflagration scenario. <p>Clarify water users and uses within 1.5km of the site and 3km of the site and potential impacts of the predicted concentrations on their water use. The proponent is to provide information regarding closure, including future land use and assurance that the site is left uncontaminated.</p> <p><u>Fallen debris and rocket components</u></p> <p>The collection of rocket stages and the debris from unsuccessful launches has been suitably identified by the proponent as very important for the retaining of current environmental values of the relevant areas. It appears that helicopter retrieval of these items is preferable to any removal methods that create vehicle tracks, vegetation disturbance and erosion.</p> <p>The proponent should commit to public reporting, including:</p> <ul style="list-style-type: none"> • notification under section 14 of the WMPC Act • public notification in the event of any failure to retrieve fallen debris or rocket components associated with launches (including failed launches). <p>The proponent should also consider the potential to improve the current condition of land areas relevant to the launch facility through implementing a program to clean-up and remove existing waste and litter.</p> <p>From a review of the documents, the additional information provided relates to point 1 under the theme of 'soil, vegetation, surface water and ground water'. The Environmental Operations Branch are unable to see where the additional comments made have been addressed. The Branch therefore still seek information to address points 2 and 3 above, and management of fallen debris and rocket components. It would be beneficial for the proponent to provide itemised responses to specific agency comments, to facilitate the review process to occur in a timely manner.</p>	<p>Information provided following the meeting.</p> <p>Noted and advice included in the Letter to Proponent.</p> <p>Noted and discussed in the SOR.</p>

Equatorial Launch Australia – Arnhem Space Centre

Item #	Comments from	Comment	EA Response
		<p>Any queries in relation to this matter should be directed to s22 , Planning Team Leader, on s22 or by email via: s22</p> <p>Should you have any further queries regarding these comments, please contact s22 by email s22 or phone s22</p>	

Archived: Thursday, 5 March 2020 3:00:46 PM

From: s22

Sent: Tue, 15 Oct 2019 08:38:04

To: s22

Subject: FW: Significant Update: Arnhem Space Centre [DLM=For-Official-Use-Only]

Sensitivity: Normal

Attachments:

[Statement of Reasons - Arnhem Space Centre.PDF](#);

Update on ELA

For Official Use Only

From: s22 @nt.gov.au]

Sent: Monday, 14 October 2019 6:03 PM

To: Clark, Megan s22

Subject: Significant Update: Arnhem Space Centre

Hi Megan and s22

More good news from the Territory!

Please see attached a statement from the NT Environmental Protection Agency (NT EPA), advising that the Arnhem Space Centre does not require assessment under the Environmental Assessment Act 1984.

In making the decision that a proposal does not require Environmental Impact Assessment, the NT EPA will have examined details of the proposal in consultation with NT Government agencies, and undertaken preliminary investigations and inquiries about the proposal's potential environmental impacts and risks.

The decision and Statement of Reasons will be made publicly available on the [NT EPA webpage](#) by the end of the day. The NT EPA have also indicated that they have provided a copy to your Minister.

This represents a significant milestone for the Arnhem Space Centre. This decision allows ELA to meet their development timeframes for NASA's sounding rocket campaign in 2020.

s47C

Kind regards,

s22

s22

Economic Innovation | Department of **Trade, Business and Innovation**

Northern Territory Government, Australia

5th Floor, Charles Darwin Centre, 19 The Mall, Darwin NT 0800 | GPO Box 3200 Darwin NT 0801

t: s22 | m: s22 | e: s22 | [@nt.gov.au](mailto:s22@nt.gov.au) | w: business.nt.gov.au



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Pages 3-14 have been removed from Document 7 as irrelevant information
under section 22 of the *Freedom of Information Act 1982*

ELA meeting.

s22

Env approvals → ~~discussions~~ will inform engagement w/ agencies
 have necessary approval for application
 ↳ social impact analysis → plan + 2 other plans
 ↳ these feed into further operational plans

s45

s22

ELI

s22

s22

From: s22 @ela.space>
Sent: Wednesday, 16 October 2019 8:14 AM
To: Murfett, Anthony: s22
Cc: Clark, Megan; s22
Subject: Arnhem Space Centre (ASC) and Aus/USA Spaceport Policy for economic development hubs

Hi Gentlefolk,

Further to our last discussion together, I note how Equatorial Launch Australia (ELA) already aligned ASC with the kind of policy vision recently stated by s22

"Former FAA official calls for national spaceport policy"

s22

October 15, 2019

"

s22

says

the government should create a policy that promotes the development of spaceports as not just launch sites but also as hubs for economic development.

...

"Instead of just viewing spaceports as locations from which launches and reentries are conducted, I think it's also important to recognize that they can serve as focal points and technology hubs," he said, with roles ranging from research and manufacturing to education.

Realizing that vision, he said, will involve a number of policy and funding changes. That includes enhanced funding for spaceport infrastructure, such as through FAA grant programs.

..."

<<https://spacenews.com/former-faa-official-calls-for-national-spaceport-policy/>>

I restate the vision of the spaceport and larger Arnhem Space Centre (ASC):

A sustainable commercial space gateway community with Aboriginal heritage knowledge of space culturally integrated [including]

- Multi User Launch and Recovery Service Provider [spaceport bit];
- Satellite Teleports;
- Research and Development;
- Advanced Manufacturing;
- Education Outreach;
- Tourism - Science with Cultural;
- Australian and international space industry ecosystem integration;

and particular comparative advantages:

- Focus on Equatorial LEO and GEO;
- Daily two direct lunar insertions possible without a transfer orbit.

s47(1)(b)

In appreciation and with regard,

s22

Equatorial Launch Australia

Archived: Thursday, 5 March 2020 3:23:14 PM

From: s22

Sent: Thu, 17 Oct 2019 13:03:29

To: [Clark, Megan](#)

Cc: s22

Subject: RE: Significant Update: Arnhem Space Centre [DLM=For-Official-Use-Only]

Sensitivity: Normal

Hi Megan,

By way of update, I spoke with the NT EPA, and while ELA's initial activities don't require assessment under the NT Environmental Assessment Act, the NT EPA recommends that potential environmental impacts associated with the construction and operation of the facility are planned for and reported on, and other legislative requirements are met. That said, the NT EPA indicated they didn't have an associated authorising process.

s47C

s22

For Official Use Only

From: Clark, Megan

Sent: Wednesday, 16 October 2019 4:35 PM

To: s22 @space.gov.au>

Cc: s22

Subject: Re: Significant Update: Arnhem Space Centre [DLM=For-Official-Use-Only]

For Official Use Only

Thanks s22 for the heads up and additional information. Megan

Dr Megan Clark | Head
Australian Space Agency

M: s22

E: s22

For Official Use Only

From: s22 @space.gov.au>

Date: Wednesday, 16 October 2019 at 12:23:40 pm

To: "Clark, Megan" s22

Cc: s22

Subject: FW: Significant Update: Arnhem Space Centre [DLM=For-Official-Use-Only]

Hi Megan,

Just a heads up that while assessment under the NT Environmental Assessment Act 1982 isn't required, s22

The NT EPA has written to Minister Andrews with a number of things they recommend ELA do...

I'm trying to contact the NT EPA re what they see the Agency's role in what they want ELA to do; s47C

Kind regards,

s22

For Official Use Only

From: s22 @nt.gov.au]

Sent: Monday, 14 October 2019 6:03 PM

To: Clark, Megan s22

Cc: s22

Subject: Significant Update: Arnhem Space Centre

Hi Megan s22

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The decision and Statement of Reasons will be made publicly available on the [NT EPA webpage](#) by the end of the day. The NT EPA have also indicated that they have provided a copy to your Minister.

This represents a significant milestone for the Arnhem Space Centre. This decision allows ELA to meet their development timeframes for NASA's sounding rocket campaign in 2020.

s47C

Kind regards,

s22

s22

Economic Innovation | Department of **Trade, Business and Innovation**

Northern Territory Government, Australia

5th Floor, Charles Darwin Centre, 19 The Mall, Darwin NT 0800 | GPO Box 3200 Darwin NT 0801

t: s22 | m: s22 | e: s22 @nt.gov.au | w: business.nt.gov.au



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18/10/19.

s22

+ELA

s22

Launch licensing.

s22

Env.

no need for EIA.
- need some info in both LFL+LP, but can reflect existing approvals (VI).

s22

s22

Archived: Thursday, 5 March 2020 3:21:00 PM

From: DISER, Released under the FOI Act
Sent: Tue, 22 Oct 2019 08:59:55

Document 15

To:
Subject: Kleos Space cleared for lift-off with launch confirmation for December; ELA NT launch site gains tick of approval from EPA
Sensitivity: Normal

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22 October 2019

[EOS-Space-Connect-Top-BannerWeb.gif](#)

India-EMISAT

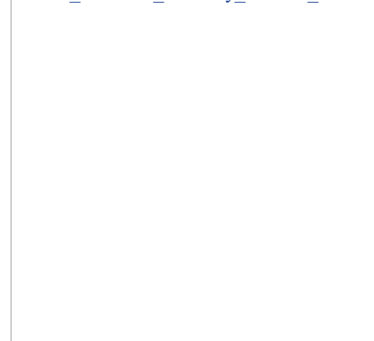
Kleos Space cleared for lift-off with launch confirmation for December

ASX-listed Kleos Space has confirmed that the Kleos Scouting Mission has been cleared for lift-off and will launch on a PSLV rocket from Chennai, India, in December.

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Solar Orbiter, the European Space Agency's flagship mission to study the sun, has completed all tests and is set to be flown to Cape Canaveral ready for its launch in February 2020. [Read more](#)

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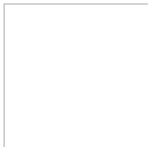
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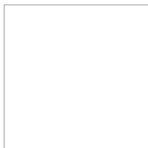
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From: s22
Sent: Friday, 25 October 2019 3:39 PM
To: s22 @industry.gov.au>
Cc: s22 @space.gov.au>
Subject: RE: Input for s22 [DLM=For-Official-Use-Only]

Hi s22

s22

s22

- **Launch services**
s22

- **Equatorial Launch Australia (ELA)**, an Australian start-up is preparing to develop the Arnhem Space Centre, near Nhulunbuy s22
The facility recently received environmental approvals from the Northern Territory Environment Protection Authority (NTEPA) and ELA will start construction of the Arnhem Space Centre in early 2020. s22

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From: s22 @nt.gov.au]
Sent: Friday, 25 October 2019 1:40 PM
To: s22 @space.gov.au>
Cc: s22 @nt.gov.au>; s22 @space.gov.au>
Subject: RE: Input to s22 [DLM=For-Official-Use-Only]

Hi s22

Please find approved points below:

- s22
- Equatorial Launch Australia (ELA) is developing the Arnhem Space Centre, near Nhulunbuy. s22

The facility recently received environmental approvals from the Northern Territory Environment Protection Authority (NTEPA) and ELA will start construction of the Arnhem Space Centre in early 2020.

s22

Please let me know if you have any further questions.

Kind Regards,

s22



s22

Senior Project Officer, Industry Development

t. s22

Department of Trade, Business and Innovation

Northern Territory Government of Australia

Level 5, Charles Darwin Centre, 19 The Mall, Darwin NT 0800

GPO Box 3200, Darwin NT 0801

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