Request for additional information

Markarna Grazing Company Pty Ltd

Sand Extraction Pit, 368 Five Mile Jim Road, Memana, Flinders Island

Section 25A Assessment

August 2023

ENVIRONMENT PROTECTION AUTHORITY

The information required in this request for additional information should be provided as a report providing adequate information about the environmental impacts of the proposed activity and the proposed mitigation measures.

The Board uses this information as a 'case for assessment', to assess the environmental impact of an activity, as required under the *Environmental Management and Pollution Control Act 1994* (EMPCA).

The report should contain five parts as follows:

- Part A – information about the proponent
- Part B – information about the proposal, site and area
- Part C – information about potential environmental impacts
- Part D – description of the proposed management measures
- Part E – description of any public consultation undertaken

Other relevant information, such as survey reports, should be attached to the report as appendices.

The report must be typed, A4 sized and submitted electronically (in a searchable format). All images must be of high quality, have a descriptive caption, and be capable of being easily copied and pasted into other documents such as a permit (i.e. all objects should be 'grouped'). All maps, plans, and aerial photographs must be oriented in the same direction as far as practicable, and include a north arrow and scale.

The content of the report should be prepared using a risk-based approach. The level of detail provided on each issue should be appropriate to the level of significance of that environmental issue to the proposal. Not all issues nominated in this request for additional information will have the same degree of relevance to the proposed activity. Depending on the nature of the proposed activity and its location, some of the issues may be more relevant than others, while others may not be applicable at all.

Planning Information

As the activity is subject to a permit under the *Land Use Planning and Approvals Act 1993* (LUPAA), information required solely for the purpose of assessment under the relevant Planning Scheme should be supplied to Council as a separate response or clearly distinguished from information supplied for the purpose of the Board's assessment.

Commonwealth Legislation

The Commonwealth Government may also have a role in the environmental assessment and approval of the activity. Approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is required for an action which is on Commonwealth land or is likely to have a significant impact on a matter of national environmental significance.

Information on the EPBC Act can be obtained from the Australian Government Department of Climate Change, Energy, the Environment and Water website[1] or by calling 1800 803 772.

The report must include a statement on whether Commonwealth approval is likely to be required.

Environment Protection Authority Contact

For information about the assessment process, contact the Environmental Assessment Branch:

GPO Box 1550

HOBART, TASMANIA 7001

Telephone: 0427 743 988

[1] Available at: www.dcceew.gov.au/environment/epbc

Email: assessments@epa.tas.gov.au

Website: www.epa.tas.gov.au

The report should be emailed or file shared to assessments@epa.tas.gov.au and your nominated contact officer.

Content of the Report

Part A – Proponent Information

The details provided already are sufficient for this section.

If a different entity will operate the activity after construction, provide similar details for that entity also.

Part B – Proposal Description

Note that the proposal description and specification of the site must be consistent with the current permit application. Any works / activities that are for the purpose of the proposal (e.g. access works) must be included.

Section B.1. – Proposed Activity

- The classification of the activities under EMPCA need to be specified in the table. Provide further detail on the screening in relation to Schedule 2 of EMPCA.
- The total area of land to be cleared over the life of this proposal needs to be stated, in hectares.
- The proposal timeline requires updating.

Section B.2. – Location and planning context

- The table could make it clearer that rezoning is required.

Section B – Description of site and surrounds

Land use	Describe the land use (current and historic) of the site and surrounds, distance to the nearest residences, and any nearby conservation reserves or recreation areas.
Topography	Describe the topography of the site and surrounds.
Climate	State the annual rainfall, average temperatures and predominant wind direction (provide wind roses if possible).
Geology	Describe any geoconservation values on or near the site (e.g. karst).
Soils	Include comments on the erodibility of soils and whether there is potential to encounter contaminated soil from current and historic activities.
Natural Values	State the vegetation types on and near the site. List the threatened fauna, flora and vegetation communities known to occur on or near the site (use the Natural Values Atlas, TASVEG 4.0[2] or results of a relevant survey).

Maps and site plan/s

- The boundary of the Land must be provided to the Board in a geospatial vector format (shapefile or DXF). This boundary should include the mining lease boundary and development area boundary as shown in Figure 3.
- A site plan needs to be included showing the vegetation types, clearly marking areas to be cleared, and records of any threatened species / vegetation communities.

[2] Both can be accessed at: https://www.naturalvaluesatlas.tas.gov.au/

Part C – Environmental Impacts and Management

The report should evaluate all potential impacts of the proposal, with the level of detail provided on each issue reflecting its level of significance. For each issue, describe how the impact assessment has been performed (for example, surveys or desktop studies). Describe the existing environment in relation to the impact, including the vulnerability of the potentially affected environment. Clearly articulate the potential impacts, identifying plausible worst-case scenarios and the reversibility of the impact. Then, describe the management or contingency measures proposed to avoid, mitigate or offset potential adverse impacts. Detail any specialist recommendations which have / will be implemented or justify otherwise. Finally, analyse how and to what degree the impacts will have been avoided, minimised or offset, and any residual impacts.

1 Air quality

- Describe the potential sources of air emissions, including dust that may arise from loading, unloading and transport.
- Evaluate the potential for environmental nuisance or harm to air quality, taking into consideration the:
  - distance to nearest residences;
  - acceptable standards described in section 7 of the *Quarry Code of Practice*[3]*;*
  - prevailing winds and other climatic factors;
  - nature of the material excavated;
  - method of excavation and processing/handling on site; and
  - site layout (refer to the Site Plan).
- Describe the measures that will be employed to reduce the potential for environmental nuisance or harm to air quality.
- Is the proposal consistent with the *Tasmanian Environment Protection Policy (Air Quality) 2004*?

2 Water quality (surface, discharge and groundwater)

- Describe the potential impacts of the activity on the receiving environment, with specific consideration of sediment and waterway disturbance, environmental values and downstream water uses.
- Describe the management measures that will be employed to control surface water and reduce the potential for erosion and sediment loss. Control measures include: minimisation of areas of disturbance; minimisation of stormwater ingress and sediment mobilisation through the use of perimeter drains, cut-off drains and bunding; sediment basins or stilling areas to capture entrained sediment; and swales, rock filters, wetlands or vegetated discharge zones to remove fine suspended sediment.
- Describe any other management measures proposed to minimise impact on waterways and aquatic values.
- Identify the dimensions, capacity and other relevant design features of key stormwater infrastructure such as drains and sediment basins, with reference to design rainfall frequency (average recurrence interval) and intensity. For sediment basins provide the sediment capture particle size, settling volume and surface area calculations and design rationale[4].

[3] Available at: https://epa.tas.gov.au/business-industry/regulation/industrial-activities/mining-and-extractive

[4] Suitable design approaches for sediment basins include those detailed in Best Practice Erosion and Sediment Control – Appendix B (June 2018 revision), International Erosion Control Association (Australasia) and Managing Urban Stormwater: Soils and Construction - Volume 2e: Mines and Quarries, Department of Environment and Climate Change, NSW Government (2008).

- Describe the waterbodies and aquatic values on site and in the surrounding area, including relevant Protected Environmental Values as per the *State Policy on Water Quality Management 1997*: *https://epa.tas.gov.au/environment/water/pevs-for-tasmanian-surface-waters.*
- State the distance from the activity to the nearest waterbody.
- Provide details of any proposed water monitoring activities.
- Is the proposal consistent with the *State Policy on Water Quality Management 1997*?
- Identify and characterise any other liquid emissions which could arise from the proposal. Provide details of the nature of the effluent (estimated volume and characteristics), proposed treatment, monitoring (as relevant) and likely impact on the receiving environment (provide water quality data where available).

3 Noise emissions and blasting

- Describe all noise sources, including the size and sound power level for each main piece of equipment (e.g. crusher / screen, loader, excavator, haul truck, rock drill).
- Provide a map of the location of all major sources of noise and any noise sensitive premises[5] within 1 km of the boundary of the Land.
- Describe the potential impacts of noise generated by the activity.
- Evaluate the potential for the activity to create a noise nuisance, taking into consideration the:
  - distance to nearest residences and other noise sensitive premises;
  - acceptable standards described in section 7 of the *Quarry Code of Practice*[6]*;*
  - hours of operation;
  - method of excavation and processing / handling on site;
  - topography; and
  - site layout showing locations of activities (refer to the Site Plan).
- Describe the noise attenuation measures that will be implemented.
- Is the proposal consistent with the *Environment Protection Policy (Noise) 2009* [7]?

4 Natural values

The Report must detail the proposed clearing / disturbance of native vegetation or potential habitat for native fauna as part of the proposal, including details of the nature of vegetation and habitat values to be cleared or disturbed, and the area of vegetation / habitat affected (in hectares).

The Report must describe the potential impacts to threatened fauna, flora and vegetation communities, taking into account:

- The clearance or disturbance of native vegetation or other potential habitat; and
- Movement, noise, or lights during sensitive avifauna breeding seasons.

The Report must describe the management measures that will be implemented to mitigate or avoid impacts to threatened fauna, flora and vegetation communities or other natural values.

[5] 'Noise sensitive premise' is defined as: residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

[6] Available at: https://epa.tas.gov.au/business-industry/regulation/industrial-activities/mining-and-extractive

[7] Available at: https://epa.tas.gov.au/policy/statutory-policies/state-policies-and-environment-protection-policies/environment-protection-policy-(noise)-2009

A natural values survey should be undertaken by a suitably qualified person in accordance with the NRE Tasmania *Guidelines for Natural Values Surveys relate to Development Applications*[8].

The Conservation Assessment Section identified several threatened flora and fauna species located within 5 km of the proposed activity, including several species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Please ensure you are aware of your obligations under the EPBC Act.

The mining lease has areas within it that are mapped as Coastal grass and herbfield areas (TASVEG 4.0 code GHC), which may meet the criteria for the EPBC Act listed *Lowland Native Grasslands of Tasmania*. The survey needs to determine whether the GHC community exists within the proposed development area. If it is identified within the development area, or may be impacted by the proposed development, consideration needs to be given as to whether it meets the EPBC Act criteria for classification as *Lowland Native Grasslands of Tasmania*.

Threatened Flora

Threatened flora species have been observed within 5 km of the development area footprint, several of which occur within 500 m, including within the mining lease and along Palana Road. The table below shows those threatened flora species that have been recorded within 500 m of the development footprint.

Species name	Common name	TSP Act*
Acacia uncifolia	coast wirilda	rare
Eutaxia microphylla	spiny bushpea	rare
Scaevola albida	pale fanflower	vulnerable
Schoenoplectus tabernaemontani	River clubsedge	rare
Zygophyllum billardierei	coast twinleaf	rare

*Tasmanian *Threatened Species Protection Act 1995*.

Threatened Fauna – Terrestrial

Terrestrial threatened fauna species have been recorded within 5 km or are within range boundary of the mining lease as shown in the table below. The survey must determine if any potential habitat for these species is present. Of particular note, the New Holland Mouse has not been observed in Tasmania for over 17 years until its re-discovery in 2021 on Flinders Island within 5 km of the mining lease.

Species name	Common name	TSP Act	EPBC Act
Pseudomys novaehollandiae	New Holland Mouse	endangered	Vulnerable
Litoria raniformis	Green and Gold Frog	vulnerable	Vulnerable
Antipodia chaostola	Chaostola Skipper	endangered	Endangered
Pardalotus quadragintus	Forty-spotted Pardalote	endangered	Endangered
Lymnodynastes peroni	Striped Marsh Frog	endangered	-
Galaxiella pusilla	Eastern Dwarf Galaxias	vulnerable	Vulnerable
Pseudemoia pagenstecheri	Tussock Skink	vulnerable	-
Aquila audax subsp. fleayi	Tasmanian Wedge-tailed Eagle	endangered	Endangered
Haliaeetus leucogaster	White-bellied Sea-eagle	vulnerable	-

[8] Available at: https://nre.tas.gov.au/conservation/development-planning-conservation-assessment/survey-guidelines-for-development-assessments

Seabirds and Shorebirds

The proposal is located within a coastal area and located approximately 200 m from Marshall Beach. Several seabirds and shorebirds have been recorded along the beach, including two listed threatened species:

- Hooded Plover (*Thinornis cucullatus*), vulnerable under the EPBC Act, and
- Fairy Tern (*Sternula nereis subsp. nereis*), vulnerable under both the TSP Act and the EPBC Act.

Little Penguins (*Eudyptula minor*) have also been recorded south of Castle Rock Point and on the offshore islands across Marshall Bay.

The potential impacts on seabirds and shorebirds from the proposal need to be considered and discussed, including an assessment of potential nesting habitat and indirect impacts resulting from disturbance within the development area.

Geoconservation and Wetlands

Describe the potential impacts to geoconservation sites, aquatic or riparian environments and other natural values, and the management measures proposed to mitigate these impacts.

The proposal is located within a coastal and wetland area. Wetlands are listed as Threatened Native Vegetation Communities under Schedule 3A of the *Nature Conservation Act 2002*. The report must address the potential impacts of the activity on geomorphology and hydrology, including dune systems, wetlands, and other relevant landforms, including but not limited to:

- existing and modified sediment budgets;
- sand transport potential, before, during and after mining and methods proposed to minimise erosion and sedimentation;
- stability of interim and final landforms, including dunes, swales, and wetlands; and
- whether the dunes are considered mobile and the potential for vegetation removal within the development area to mobilise dunes and impact the Marshall Beach Conservation Area.

Proposed measures to avoid / minimise disturbance to vegetated or mobile landforms, hydrology and water quality should be detailed, including the use of buffers. Where disturbance will occur, proposed rehabilitation measures should be outlined.

Karst

It is noted that a karst area is mapped extending eastwards from the eastern third of the mining lease. The potential impacts on karst from the activity must be considered and discussed. Consideration should be given to undertaking a survey for karst within the development area and detailing any recommended mitigation measures as necessary.

Acid Sulfate Soils

The entire mining lease is mapped as having Potential Acid Sulfate Soils (PASS). The Tasmanian Acid Sulfate Soil Management Guidelines[9] and the National Acid Sulfate Soil Guidelines[10] should be reviewed in relation to the proposed activity. The Tasmanian ASS Guidelines indicate that a management plan is likely to be required for the proposal. The Report must consider the requirements of the Tasmanian ASS Guidelines and determine whether further investigation and management of acid sulfate soils at the site is required.

[9] Available at: https://nre.tas.gov.au/agriculture/land-management-and-soils/soil-management/acid-sulfate-soils
[10] Available at: https://www.waterquality.gov.au/issues/acid-sulfate-soils

5 Weeds, pests and pathogens

- A Weed and Disease Management Plan must be developed and implemented for the activity. The Plan must be developed in accordance with the NRE (2015) *Weed and Disease planning and Hygiene Guidelines: Preventing the spread of weeds and disease in Tasmania*[11].
- The Report should:
  - List the weeds[12], pests and pathogens occurring on or near the site.
    - Three weed species declared under the *Weeds Management Act 1999* have been recorded within 5 km of the mining lease.
    - *Phytophthora cinnamomi* (PC) is recorded as present along Palana Road north of the mining lease.
    - Frog chytrid fungus (*Batrachochytrium dendrobatidis*) has been recorded on Flinders Island and is of relevance to this proposal noting the mapped wetland areas within and adjacent to the development proposal footprint.
  - Evaluate the potential for the activity to introduce or spread weeds and diseases to, from and within the site.
  - Discuss the proposed management measures for preventing the spread of weeds, pests and pathogens (e.g. vehicle washdown procedures).
- Practical information on how to minimise the risks of introducing and spreading PC and chytrid fungus can be found in the manual *Keeping it clean - A Tasmanian field hygiene manual to prevent the spread of freshwater pests and pathogens*[13].

6 Waste

- Describe the solid and liquid waste that will be produced by the activity (e.g., overburden, Potentially Acid Forming material, metal, and machinery service wastes, used oils, general refuse).
- Describe the proposed methods for avoidance, reuse, recycling, treatment, and disposal of waste.

7 Environmentally hazardous substances

- Detail the nature and quantity of any environmentally hazardous substances[14] that will be stored (permanently or temporarily) and/or handled on site. This includes fuels, oils, waste and chemicals.
- Describe the storage method and location of any environmentally hazardous substances and discuss the proposed management measures to prevent release and respond to accidental spills (e.g., provision of spill kits).
- Identify any dangerous goods[15] and controlled wastes[16] that will be present on the site, with reference to standard classification. Detail how they will be managed.

[11] Available at: https://nre.tas.gov.au/invasive-species/weeds/weed-hygiene/weed-and-disease-planning-and-hygiene-guidelines
[12] Plant species declared as a weed under the *Weed Management Act 1999*.
[13] Available at: https://nre.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual
[14] 'Environmentally hazardous substance' is defined as: any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment.
[15] As defined in the Australian Code for the Transport of Dangerous Goods by Road and Rail.
[16] Information on controlled waste identification and classification is available at: https://epa.tas.gov.au/business-industry/regulation/waste-management/controlled-waste

8 Site contamination

- Has the site on which the activity is to be located been used in the past for activities which may have caused soil or groundwater contamination? If so, provide details. Include details of any assessments of soil or groundwater contamination on the site.

9 Environmental impacts of traffic

- Provide details of the vehicle types, number of vehicle movements, times of movements and route(s).
- Evaluate the potential for transport to and from the site to cause a noise nuisance to residences and other noise sensitive premises in proximity to the Land, considering the type, volume and time of traffic associated with the proposal.
- Evaluate the potential to cause a dust nuisance as a result of traffic in proximity to the Land.

10 Other off-site impacts

- Does the activity have the potential to generate any other off-site impacts that may affect the amenity of residences or other sensitive uses (such as schools and hospitals)? If yes, provide details. The location of all nearby residences or other sensitive uses must be clearly shown on the area map.

11 Monitoring

- Describe any proposed environmental monitoring and reporting for the activity.
- Show all proposed monitoring points on the site plan.

12 Marine areas and coastal zone

- Describe the potential impact to sensitive marine areas, conservation areas, or areas used extensively for recreational or commercial fishing activities.
- Provide details of any surveys undertaken in accordance with the *Guidelines for Marine and Estuarine Natural Values Surveys related to Development Proposals*[17].
- Discuss how the proposal is consistent with the *Tasmanian State Coastal Policy 1996*.

13 Decommissioning and rehabilitation

- Describe the proposed decommissioning and rehabilitation measures in the event of cessation of the activity.
- Describe any proposed progressive rehabilitation measures, with reference to the staged development of the quarry/extractive pit (refer to the Site Plans as relevant).

14 Greenhouse gas emissions and climate change

- Describe how the proposal will implement best practice environmental management in energy consumption and in transport of materials to and from the proposed activity, to minimise greenhouse gas emissions.

[17] Available at: Guidelines for Marine and Estuarine Natural Values Surveys related to Development Proposals.pdf (nre.tas.gov.au)

- Discuss the impacts of the proposed activity in relation to Tasmania's climate change strategy[18].
- Describe the potential impacts of climate change upon the proposal. For example, it may be appropriate to plan for more intense storm events, more severe fire weather, long-term sea level rise, etc.

Part D – Summary of Proposed Management Measures

This section should contain a table of the proposed measures for avoiding, minimising and managing the potential environmental impacts of the proposal (as identified in Part C). These should be written as specific, unambiguous statements of action (see example below).

Table 1. Proposed management measures

No.	Proposed Management Measure	Timeframe
1	Design and install a sediment settling pond capable of containing runoff from a 1-in-20 year storm event as described in Part C, paragraph 2.6 [of the Report].	At least 30 days prior to commencement of operations.
2	Develop a solid waste management plan as described in Part C, paragraph 8.4 [of the Report].	Within three months of approval and prior to treatment or removal of any waste.
3	Erect a noise attenuation barrier as described in Part C, paragraph 9.2 [of the Report]	At least 30 days prior to commencement of operations.

Part E – Public and Stakeholder Consultation

- Describe any public or stakeholder consultation that has taken place or is intended (such as with other government agencies, community groups or neighbours).
- Provide details of the outcome or main findings of any community consultation.
- Furter advice on community engagement can be found on the EPA website: *Guidance on Community Engagement*[19].

[18] Available at: http://www.dpac.tas.gov.au/divisions/climatechange
[19] Available at: https://epa.tas.gov.au/business-industry/assessment/guidance-documents

Appendix A: Other issues and agency contacts

In addition to a permit under LUPAA and EMPCA, there may be other legal requirements to allow your proposal to proceed, including other permits, licences or landowner consent. You may also need to contact other Government agencies to obtain information for the purpose of assessment.

Your proposal may have been referred to other agencies by EPA. If assessments or approvals outside of the Board's responsibilities are required, you should engage with the respective agency to progress them. The following list identifies some of the agencies you may need to contact:

Conservation Assessments

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6165 4396
Email: conservationassessments@nre.tas.gov.au
Website: www.nre.tas.gov.au/conservation

Purpose: Natural values including flora, fauna, and geoconservation values, or permits to deal with threatened species.

Heritage Tasmania

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6165 3700
Email: enquiries@heritage.tas.gov.au
Website: www.heritage.tas.gov.au

Purpose: Historic cultural heritage, including State-level site listings, impacts and permits as required under the *Historic Cultural Heritage Act 1995*. Where works are proposed in or near a heritage place entered on the Tasmanian Heritage Register or likely to be of heritage significance to the whole of Tasmania, and a permit is required under the *Land Use Planning and Approvals Act 1993*, the proposal will be referred to Heritage Tasmania by the planning authority. There may also be additional sites listed under local planning schemes, impacts on which are assessed by the relevant planning authority.

Aboriginal Heritage Tasmania

Department of Premier and Cabinet
Telephone: 1300 487 045
Email: aboriginalheritage@dpac.tas.gov.au
Website: www.aboriginalheritage.tas.gov.au

Purpose: Aboriginal heritage, including desktop assessment, artefact survey requirements, permits and advice.

Parks and Wildlife – Property Services

Department of Natural Resources and Environment Tasmania
Telephone: (03) 6169 9015
Email: PropertyServices@parks.tas.gov.au
Website: www.parks.tas.gov.au

Purpose: Impacts on parks and reserves managed by Parks and Wildlife, or Crown land.

Agriculture and Water

Department of Natural Resources and Environment Tasmania
Telephone: 1300 368 550
Email: Water.Enquiries@nre.tas.gov.au
Website: www.nre.tas.gov.au/water

Purpose: Water licences and works impacting natural waterway flow (e.g., dams or fords).

Transport Services

Department of State Growth
Telephone: (03) 6166 3369
Email: permits@stategrowth.tas.gov.au
Website: www.transport.tas.gov.au

Purpose: State roads, including where any proposal requires works on or access from a State-managed road.

Mineral Resources Tasmania

Department of State Growth
Telephone: (03) 6165 4800
Email: info@mrt.tas.gov.au
Website: www.mrt.tas.gov.au

Purpose: Mining Leases.

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