LEVEL 2A ENVIRONMENTAL EFFECTS REPORT

To extract, crush and screen 5,000 tonnes (3,000m³) of Dolomite from Togari. Mineral Holdings Australia Pty. Limited.

Part A – Proponent Information

Mr Neil Thomas is the Chairman of Mineral Holdings Australia Pty. Ltd. (MHA) which is in turn the holder of Retention Licence 10/1997 and Mineral Licence Application 1906P/M at Togari in North West Tasmania. The contact details for Mr. Thomas and MHA are:-

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Part B – Project Description

1. Description of Project

There has been a long history of exploration by MHA, and a series of joint venture partners, for a wide range of carbonate products in North West Tasmania. By 1997 MHA had outlined a substantial inventory of high quality dolomite at Togari and has proceeded with a number of attempts to market material from the area.

Mr. Thomas has now been asked by Blue Scope Steel to supply a 5000 tonne bulk sample of dolomite from this area to determine its suitability in the manufacture of iron and steel at the Blue Scope plant in Port Kembla. Dolomite is an industrial mineral and unlike gold and base metal products it can only be evaluated in full scale production furnace trials and a 5000 tonne bulk sample is the minimum quantity of material required to carry out this test.

The Togari project is still essentially in the exploration phase and full scale mining is still problematical and a long way off. Blue Scope Steel wants to test the Togari dolomite as a potential source of supply as opposed to its present source at Ardrossan on York Peninsula in South Australia. However a sample of this size, even though it is only for test purposes, cannot be taken from an exploration title and can only be taken from within a Mining Licence. Mineral Holdings Australia Pty. Ltd. (MHA) has therefore been forced to apply for a minimum sized Mining Licence, in order to supply the sample, even though actual mining of the area will be entirely dependent on the success of the furnace trials on this bulk sample and the negotiation of a satisfactory contract even if the trial is successful.

To take this bulk sample MHA will have to excavate some 3000 cubic metres of dolomite from a shallow pit up to 6 metres deep and 50 by 10 metres in area. (6 metres is the most
effective depth for explosives to break up the rock) Extraction will be by drill and blast with removal by front end loader. The dolomite is to be supplied in approximately fist sizes lumps and the dolomite as mined will have to be crushed by jaw crusher and screened to size and stockpiled ready for transport on a crusher pad approximately 50 by 50 metres in size placed adjacent to the sample pit. The 5000 tonnes of screened material will then be trucked to Burnie as it is prepared for shipment to Port Kembla. Both the Pit and the crusher pad would be contained in the 2 Hectare Mineral Licence area of 1906P/M (see figure 1).

To prepare the site topsoil will be removed from the pit site by scraper and/or back hoe and stockpiled to the south of the proposed pit and away from the drainage channel. Likewise topsoil will be removed and stockpiled south of the crusher pad. Broken dolomite from the pit will then be spread over the crusher and storage pad to provide a firm base. It is also important that dolomite from the pit be used for the pad as the crushed material will be stored temporarily until a truck is available. The material will be loaded by front end loader so it is vital the pad lining is of the same material to avoid any contamination of the sample. The pad will be no higher than the existing land surface and drainage will be away from the shallow drain and into the pit.

Access roads will have to be paved with gravel to allow heavy trucks to operate. Material will be brought in from outside the site if initial crushed and broken material from the pit is not available in time. Where the access track crosses the shallow drain either a causeway of broken dolomite or a culvert with concrete pipes will be constructed for trucks to cross without impeding any water flow.

Ground water flow is expected to be minimal and the dolomite is hard and massive with little fracturing and only minor traces of any bedding. This is why the area used to be swampy. The rain water sat on top of the dolomite and could not drain out through the rock.

Most water coming to the site will be rain water which will drain into the pit. The work will most likely be carried out in July. Rainfall in July is present on 21 days on average and total rainfall for the month is 186mm. In order to keep rainfall from surrounding areas off the site a shallow drain will be developed around the three sides of the workings away from the existing drain. Rainfall within the workings will gravitate into the pit. Some of this water will be used to keep dust down during crushing and the rest will be discharged into a shallow settlement pit as shown in Figure 1. The settlement pond drains into the drain surrounding the workings through a series of bales of hay which will filter out any fine dolomite particles so that only clear water will pass along the drain into the existing drain and eventually into the Montague River Channel. Contamination of the rain water is unlikely and will be covered in section C 2 and C7.

Blue Scope Steel has requested the material to be supplied as soon as possible as they wish to evaluate all potential sources of dolomite as quickly as possible. MHA would like to be able to supply the material before the beginning of August this year.

Provided permission is granted to take the sample by the end of June MHA should be able to mine, crush and transport the material to Burnie by the end of July. MHA expects to be able to do this by working normal hours of 9 to 5 five days a week but could work...
weekends if necessary to complete the job by the first of August. All up a one month period should be sufficient to mine, crush, screen and ship the 5000 tonne sample.

It should be possible to load 50 tonnes per truck so that no more than 5 trucks per working day will be necessary during the month of July to move the material to Burnie. MHA recently moved 5000 tonnes of Quartzite from a site at Hogarths Creek, over a similar time period, all the way to Bell Bay without any inconvenience or complaint from the public.

2. Project area

The 2 Ha Mining licence is in very flat cleared land that is being made ready for pasture. The water table is close to the surface and soil cover is generally less than one half metre. A very shallow drainage channel runs close to the northern boundary of the sample site. The underlying rock type is dolomite, the material MHA intends to sample. The site will be occupied for only the one month necessary to take the sample and no permanent buildings will be erected.

The area was originally covered by low native vegetation but this has been recently cleared by the land owner for pasture. All the land immediately adjacent to the site has been cleared and most of the surrounding land is pasture for dairy cattle.

The surrounding land is privately owned by Mr. Rodney Collins of Gurngurry Pty Limited of PO Box 479 Smithton Tasmania. A compensation agreement has been signed by both parties and is registered with Mineral Resources Tasmania.

There is no residence on Mr. Collins property and the nearest residence is approximately 3 kilometers away from the site just to the south of Bass Highway where it intersects Park Road (see Figure 3). There are no schools or hospitals until Smithton some 25 Km away and even here the Bass Highway by passes the town.

3. Map and site plan

The property is located in recently cleared farming land adjacent to a side channel of the Montague River Drainage Channel south of the Bass Highway and about 25 km south-west of Smithton. Access is via the township of Brittons Swamp on the Bass Highway, 25 km west of Smithton, thence 2 km south along Salmon River Rd. and then farm tracks to the Licence area. Figure 1 shows the Licence area of 1906 P/M and the proposed pit and crusher pad. Figure 2 shows the licence area in relation to Retention Licence 10/1997. Figures 3 shows the expected and alternative access roads along with the location of the residences, the eagles nest and location of informal reserves imposed on the landowner. Figure 4 shows the location of RL10/1997 and the surrounding countryside.

Part C – Potential environmental effects

1. Flora and fauna
The land in and surrounding the Licence area has been recently cleared and made ready for pasture. An environmental study has been carried out by Philip Milner Landscape Consultant Pty. Ltd. for MHA and a copy of the report is attached as appendix 1. The conclusions and recommendations of Milner’s survey are:

VEGETATION COMMUNITIES: No natural vegetation community remains on or adjacent to the proposed quarry site and no specific action is required. Future revegetation of the site post quarry will depend on the land use of the adjacent property at the time.

THREATENED VEGETATION COMMUNITIES: No threatened vegetation community was observed during the field survey and no specific action is required.

THREATENED FLORA:
One species of threatened flora is recorded on the Natural Values Atlas database as occurring within 1,000 metres of the pit site (see Figure 3). The Scrambling Ground Fern *Hypolepis distans* is listed as being endangered under both State and Commonwealth Acts. The listed site is adjacent to the Roger River Road 1Km south west of the pit site. The site is well away from the pit and the access track and no specific action is required.

FLORA OF CONSERVATION SIGNIFICANCE: No flora of specific conservation significance was observed during the survey and no action is required.

THREATENED FAUNA AND THREATENED FAUNA HABITAT:
No species of threatened fauna are recorded on the Natural Values Atlas database as occurring within 500 metres of the site and only one item of threatened fauna (the possible nest of a Wedged Tailed Eagle) is recorded on the database as occurring within 1,000 metres of the site.

Two further species of threatened fauna are recorded within 2,000 metres of the site.
- The Spotted-tailed Quoll, *Dasyurus maculatus* subsp. *maculatus* is listed as being rare under the State Act and vulnerable under the Commonwealth Act. There is one 1986 record.
- The Striped Marsh Frog, *Limnodynastes peroni* is listed as being endangered under the State Act. It has been recorded adjacent to the Montagu River. No frogs were observed by Phillip Milner during his survey.

Four additional threatened species of fauna are recorded within 5,000 metres of the site. They are:
- The White (Grey) Goshawk *Accipiter novaehollandiae*
- The Eastern Barred bandicoot, *Parameles gunnii*
- The Tasmania Devil, *Sarcophilus harrisii*
- The Keeled Snail, *Tasmaphena lamproides*

THREATENED FAUNA: No species of threatened fauna were observed during the field survey. None of the threatened species known to occur within 5km of the site were observed during the survey. As part of his land clearing operation the Landowner was required to set aside an area of native bushland adjacent to the Montague River channel to
protect sites of the **Marrawah Skipper Moth**. The area was preserved and the only effect on MHA’s operation is that the alternative access track runs along side of this reserve.

**THREATENED FAUNA HABITAT:** No potential habitat for any threatened species of fauna was observed on or adjacent to the proposed quarry site. A known nest tree for the Wedge-tailed Eagle is located about 800 metres south-west of the proposed quarry site and adjacent to the existing access road.

It is not known whether the nest is used or abandoned but it suggested MHA should apply the following management prescriptions for the known nest tree.

- Property owner to retain a 10ha area of forest around the nest site. (Should already be part of the Forest Management Plan approved by the Forest Practices Authority. This is the Land owners responsibility and has been done.
- During the breeding season from August to January inclusive and each year, provide an alternative access route to the quarry site. The existing road should be closed during this period. **MHA will adhere to this recommendation. (Commitment Sect C1.1)**
- During the breeding season each year exclude any activity within 500 metres of the nest site. **MHA will adhere to this recommendation. (Commitment Sect C1.2)**
- A planted shelterbelt and screen may need to be established on the west and south-west sides of the quarry site in order to achieve the 1,000 metre line of sight buffer. This does not apply to this bulk sample site occupied for only one month duration and especially as a large area of natural bush has been left surrounding the nest site. This effectively screens the sample site from the nest tree.

No frogs were observed by Phillip Milner during his survey. EPA personnel reported hearing frog calls on a recent site visit but no frogs were seen. The recorded site of the **Striped Marsh Frog** on the Montague River is well away from the sample site and with a short time of occupation to collect the sample should not interfere with any frog population. An informal reserve of 40 metres was imposed on the land owner along Montague River Channel and this will more than adequately protect any frogs in the area.

The Commonwealth environmental legislation (EPBC Act) has also been reviewed and a Protected Matters Report is attached as Appendix 2. It suggested the following matters were of national environmental significance:

- **World Heritage Properties** none
- **National Estate Places** none
- **Ramsar Sites** none
- **Commonwealth Marine Areas** none
- **Threatened Ecological Communities** none
- **Threatened species** The following 7 species **might occur**:
  - Wedge Tailed Eagle, Swift Parrot, Giant freshwater crayfish, Tiger Quoll, Eastern barred bandicoot, Tasmanian Devil, and the Australian Greyling
- **Migratory species** the following 7 species **might occur**:
  - White bellied Sea Eagle, White throated Needletail, Satin Flycatcher, Great Egret, Cattle Egret,, Latham’s Snipe, Fork tailed Swift
- **State and Territory Reserves** The **Montague Swamp Forest Reserve**
is the only Reserve within 4Km of the site. It is located 400 metres to the south of the Pit area and is a Regional Forest Agreement Reserve of 1581 Ha. As such it is available for mineral exploration under the Mineral Resources Development Act 1995 and imposes no restrictions on MHA’s operation.

Within 15 Km of the site there are an additional 5 RFA reserves, 17 Mile Plain, Bond Tier, Dismal Swamp, Welcome Swamp, and Roger River. Again all these areas, with the exception of Dismal Swamp are available for Mineral exploration and impose no restrictions on MHA’s operation.

The Dismal Swamp Forest Reserve is listed in the National Estate and includes a smaller area, The Dismal Swamp Nature Reserve and is a popular tourist attraction. The Dismal Swamp Reserve is located from 4.5 to 6.5 Km north west of the sample site and would not be inconvenienced by the sampling activity.

Philip Milner in his Environmental report suggested numerous weeds were present on the site as would be expected on a completely cleared patch of forest. However no Blackberry or Spanish Heath which are significant environmental weeds in the district was observed. MHA will ensure topsoil stockpiles are no more than 1 metre in height to ensure no souring of the material. The presence of weeds growing in the soil stockpiles will be monitored and controlled if necessary. (Commitment Sect C1, 3 and 4)

There was no symptomatic field evidence observed of the root pathogen Phytophthora cinnamomi during this field survey and any material taken from this Phytopththora free sample site will be crushed rock and will be free of pathogens. MHA will observe and follow accepted protocols in regard to hygiene and wash-down procedures during the development and operation of the quarry to avoid the introduction of the pathogen to the site. (Commitment C1, 5, 6 and 7 are listed below)

- All earthmoving machinery must be washed down prior to entering the site.
- Washdown should be done either at the point of departure from the previous operation, or at a designated washdown facility outside the site.
- No clods of dirt or loose soil should be present after washdown.

The small scale mining operation will remove much of the wet boggy top soil and cover part of the area with a crushed stone pad. Ground water will be minimal and any rain water will drain into the pit where it can be used for dust suppression or pumped into the existing drain via the settling pond the hay bale filters and the surrounding drains. In fact the Licence area will be much drier than the surrounding farmland and this will also assist in controlling phythophthora.

2. Rivers, Creeks etc.
The Mineral Licence is located adjacent to a poorly formed drainage channel which eventually runs into a drainage channel that forms the headwater of Montague River. Most water coming to the site will be rain water which will drain into the pit. The work will most likely be carried out in July. Rainfall in July is present on 21 days on average and total rainfall for the month is 186mm. In order to keep rainfall from surrounding areas off the site a shallow drain will be developed around the three sides of the workings away from the existing drain. Rainfall within the workings will gravitate into the pit. Some of this water will be used to keep dust down during crushing and the rest will be discharged into a shallow settlement pit as shown in Figure 1. The settlement pond drains into the drain surrounding the workings through a series of bales of hay which will filter out any fine dolomite particles so that only clear water will pass along the drain into the existing drain and eventually into the Montague River Channel. Contamination of the rain water is unlikely.

The dolomite is hard and compact and there will likely be less than 10% undersize material left over after crushing. There will be very little dust or sand sized material and most of the undersized material will be like coarse gravel and will be unlikely to wash into the drains. It is extremely unlikely any of this material could travel as far as the Montague River even with a major flood.

Any fine grain sized dolomite recovered from the settlement pond is a valuable anti bloating agent for cattle and will be made available to surrounding land owners. Any water from the pit or rain run off would be identical in composition to water already draining from the area.

To ensure only clean runoff water enters the existing drainage system MHA will undertake to; (Commitment Sect C2/7. 1, 2, and 3 are listed below)

- Construct a shallow drain around the east, west and southern sides of the work area. (See Figure 1.)
- Construct a shallow settling pond to receive any water pumped from the sample pit.
- Set bales of hay where the pond connects to the surrounding drain to ensure filtration of fine solids before run off into existing drains.

3. Significant areas

The Montague Swamp Forest Reserve is the only Reserve within 4Km of the site. It is located 400 metres to the south of the Pit area and is a Regional Forest Agreement Reserve of 1581Ha. As such it is available for mineral exploration under the Mineral Resources Development Act 1995 and imposes no restrictions on MHA’s operations.

Within 15 Km of the site there are an additional 5 RFA reserves, 17 Mile Plain, Bond Tier, Dismal Swamp, Welcome Swamp, and Roger River. Again all these areas, with the exception of Dismal Swamp are available for Mineral exploration and impose no restrictions on MHA’s operations.

The Dismal Swamp Forest Reserve is listed in the National Estate and includes a smaller area, The Dismal Swamp Nature Reserve and is a popular tourist attraction. The Dismal
Swamp Reserve is located from 4.5 to 6.5 Km north west of the sample site and would not be inconvenienced by the sampling activity.

The whole surrounding area is listed as The Smithton Basin Plains Karst Geoconservation Area in a Tasmanian Geoconservation Database as well as a National Estate Datadase. Neither listing has any implication for MHA’s sampling operation.

A cave reserve, the Montague Cave and Bone Bed, exists on the Montague River some 16km north of the proposed sample site.

4. Coastal zone

Not applicable.

5. Marine areas

Not applicable.

6. Air emissions

Dust will be kept to a minimum by water spray but the only dust will be fine dolomite which is used in agriculture as an anti bloating agent for cattle. Pasture for dairy cattle is the surrounding land use and any dolomite dust would be of benefit to the surrounding land.

7. Liquid effluent

Most water coming to the site will be rain water which will drain into the pit. In order to keep rainfall from surrounding areas off the site a shallow drain will be developed around the three sides of the workings away from the existing drain. Rainfall within the workings will gravitate into the pit. Some of this water will be used to keep dust down during crushing and the rest will be discharged into a shallow settlement pit as shown in Figure 1. The settlement pond drains into the drain surrounding the workings through a series of bales of hay which will filter out any fine dolomite particles so that only clear water will pass along the drain into the existing drain and eventually into the Montague River Channel. Contamination of the rain water is unlikely. (Commitments Sect. C 2/7. 1, 2 and 3 apply)

The surrounding area already drains through extensive areas of dolomite so any minor additional dissolved dolomite entering the drainage from the sample site would have no effect.

8. Solid wastes

Dolomite will be the only solid waste produced and MHA expects this will total less than 10% of the material crushed. Fine dolomite (sand sized or under) will be trapped in the settling pond and in the crushed rock base of the crusher pad. It is a valuable source of agricultural lime and magnesia and if recoverable from the settlement pond will be made
available to surrounding land owners. Coarser undersized material would be good road base or aggregate and could also be disposed of to surrounding farmers or Council. It is very likely almost all undersized solid waste will be taken off site. Any that remains can be disposed of back into the pit. The material is completely inert and non toxic.

9. Noise emissions

The nearest residence is 3 kilometers away, adjacent to the Bass Highway, so that any inconvenience from noise will be minimal. It is likely there will only be two episodes of blasting during the month of operations and noise from loaders, crushers and trucks, only operating during working hours, is unlikely to travel anything like the 3 kilometers.

10. Transport impacts

The 5000 tonnes of crushed and sized dolomite will need to be transported by truck to Burnie. It is estimated this will require 100 truck movements for the month, twenty five per week or 5 per day. Almost all the trip will be on the Bass Highway which by passes the towns of Smithton and Wynyard. MHA has recently shipped a similar quantity of quartzite from a site at Hogarths Creek, over a similar time period, all the way to Bell Bay without any trouble or complaints.

The alternative trucking routes from the sample site to Roger River Road are shown on Figure 3. The shorter and preferred route runs westerly along the existing drain and onto Roger River Road. It passes within 200 metres of the eagle nest tree and cannot be used between August and January.

The alternate route to be used if and when the nest is occupied runs east along the existing drain then runs northwest along the edge of the Marrawah Skipper Moth informal reserve then across the paddock to Roger River Road.

One of the conditions required of the landowner was that machinery was only allowed to cross the drains where “properly constructed” crossings were made. **MHA undertakes to construct proper culverts where it intends to cross the existing drains. (Commitment Sect 10.1.)**

11. Other off site impacts

The nearest houses are 3 kilometers directly north of the proposed site near the junction of the Bass Highway and Park Road (see Figure 3). As mentioned previously the Bass Highway by passes Smithton and Wynyard so that there is no inconvenience to schools or hospitals by the transport of material to the port of Burnie. MHA recently moved 5000 tonnes of Quartzite from a site at Hogarths Creek all the way to Bell Bay without any inconvenience or complaint from the public.

12. Dangerous substances and chemicals
No dangerous materials will be stored on site. Explosives and fuel will be transported in as required. All transport vehicles will be refuelled off site while in refilling of mining and crushing equipment fuel will be manually pumped from a 44 gallon drum tied to the back of a utility truck and carried out adjacent to the pit. In the unlikely event of any spill it would run into the pit. The spill would be contained and could be recovered or sopped up for removal off site.

In the unlikely event of a fuel or oil spill MHA undertakes to (Commitment Sect. 12, 1 & 2 are listed below)

- All fuel and oil spills will be contained as soon as possible and clean up promptly implemented.
- Fuel or oil spills that cause or threaten to cause environmental harm will be reported DPIWE as soon as practicable but within 24 hours of the event.

13. Site contamination

There has been no contamination at the site. The area was originally native scrub that has been cleared recently by the landowner. There are no sulphide or any other contaminants within the dolomite. The dolomite is very pure. Its average composition (by weight%) is MgO 19.62, CaO 32.86, SiO2 0.44, TiO2 0.01, Al2O3 0.54, Fe2O3 0.24, MnO 0.005, Na2O 0.08, K2O nil, P2O5 nil, SO3 nil and loss on ignition (CO2) 46.16. The rock is almost pure dolomite (calcium-magnesium carbonate) and the nil SO3 means no sulphide minerals like pyrite and no likelihood of any acid drainage.

The surrounding area already drains through extensive areas of dolomite so any minor additional dissolved dolomite entering the drainage from the sample site would have no effect.

14. Sustainability and climate change

The proposal is to take one bulk sample of 5000 tonnes over a one month period and any impact on climate change is minimal. Trucks and machinery will emit CO2 but this would be no more than the same machinery being used elsewhere. However MHA will undertake to ensure the contractors keep their machinery tuned and used efficiently (Commitment Sect. 14.1) to keep CO2 emissions at a minimum.

Dolomite is a carbonate mineral with 46% CO2. It is used in the steel industry as a flux and the CO2 is emitted to the atmosphere. However the Togari dolomite is very pure and as such will use much less heat and therefore less CO2 than the materials currently being used. A net reduction in the amount of CO2 released.

The sample site will only be occupied for about a month. Any effect of global climate change on the project is minimal to non existent.

15. Cultural heritage

MHA has asked Aboriginal Heritage for information on possible heritage sites near to the proposed bulk sample site. They have replied (see Appendix 3)*Aboriginal Heritage
Tasmania has completed a search of the Tasmanian Aboriginal Site Index (TASI) regarding the proposed mining lease at Togari, NW Tasmania and can advise that there are no Aboriginal heritage sites recorded within or close to the property. Due to the area being highly disturbed it is believed that the area has a low probability of Aboriginal heritage being present.

Accordingly there is no requirement for an Aboriginal heritage investigation and Aboriginal Heritage Tasmania have no objection to the project proceeding”.

16. Sites of high public interest

The Dismal Swamp Nature Reserve and is a popular tourist attraction. The Reserve is located from 4.5 to 6.5 Km north west of the sample site and would not be inconvenienced in any way by the sampling activity.

17. Rehabilitation

The amount of rehabilitation necessary will depend on the success or otherwise of the bulk sample furnace trials. If successful a full scale mining operation might result with the sample site as the focus of the mine site.

If on the other hand the trial is unsuccessful then any undersize material not taken off site would be placed back into the pit, the crusher pad cleaned up and placed into the pit, the pit sides sloped to stop cattle falling in and top soil replaced over the surrounding site and used to refill the encircling drain and settling pond. A shallow water filled hole would remain but the land owner has indicated this would help as a water supply to a dairy site he is constructing.

If rehabilitation is necessary MHA undertakes to place any undersize material not taken off site back into the pit, the crusher pad would be cleaned up and placed into the pit, the pit sides then sloped to stop cattle falling in and top soil replaced over the surrounding site and used to refill the encircling drain and settling pond. (Commitment Sect 17.1)

Part D - Management Commitments

- **(Commitment Sect. 1.1)** During the breeding season from August to January inclusive provide an alternative access route to the quarry site. The existing road should be closed during this period.
- **(Commitment Sect. 1.2)** During the breeding season exclude any activity within 500 metres of the nest site.
- **(Commitment Sect. 1.3)** MHA will ensure topsoil stockpiles are no more than 1 metre in height to ensure no souring of the material.
- **(Commitment Sect. 1.4)** The presence of weeds growing in the soil stockpiles will be monitored and controlled on advice from DPIPWE if necessary.
- **(Commitment Sect. 1.5)** All earthmoving machinery must be washed down prior to entering the site.
• **(Commitment Sect. 1.6)** Washdown should be done either at the point of departure from the previous operation, or at a designated washdown facility outside the site.

• **(Commitment Sect. 1.7)** No clods of dirt or loose soil should be present after washdown.

• **(Commitment Sect. 2/7.1)** A shallow drain will be developed around the three sides of the workings away from the existing drain.

• **(Commitment Sect. 2/7.2)** A shallow settling pond will be constructed to take water pumped from the sample pit.

• **(Commitment Sect. 2/7.3)** Bales of hay will be placed to act as a filter for fine sediment before the water runoff enters the drain circling the workings.

• **(Commitment Sect. 10.1)** MHA undertakes to construct proper culverts where it intends to cross the existing drains.

• **(Commitment Sect. 12.1)** All fuel and oil spills will be contained as soon as possible and clean up promptly implemented.

• **(Commitment Sect. 12.2)** Fuel or oil spills that cause or threaten to cause environmental harm will be reported DPIPWE as soon as practicable but within 24 hours of the event.

• **(Commitment Sect 14.1)** MHA will undertake to ensure the contractors keep their machinery tuned and used efficiently.

• **(Commitment Sect. 17.1)** If rehabilitation is necessary MHA undertakes to place any undersize material not taken off site back into the pit, the crusher pad would be cleaned up and placed into the pit, the pit sides then sloped to stop cattle falling in and top soil replaced over the surrounding site and used to refill the encircling drain and settling pond.

**Part E – Public consultation**

Other than Mineral Resources Tasmania, The Circular Head Council, Aboriginal Heritage, The land owner, EPA and the Commonwealth EPBC there has been no public consultation. MHA will be guided by the recommendations of the EPA for any additional public consultation.
FIGURE I. Site plan of Licence area and proposed bulk sample site works.
FIGURE 2 Licence area and access track
FIGURE 3 ML 1906PM and RL 10/1997  Shows the location of present and alternate access tracks, The eagles nest, the position Scrambling Ground Fern site and the informal reserve for the Marrawah Skipper Moth. The nearest houses are at the junction of the Bass Highway and Park Road about 1km east of where the Montague River channel intersects the Bass highway. The houses are about 3km due north of the proposed sample site.
FIGURE 5. Location of Regional Forest Reserves within 15 Km of the sample site. The small area immediately west of Dismal Swamp is Welcome Swamp and the area south east of Montague swamp is Roger River. The areas near Salmon River and Arthur River are unknown.
Appendix 1.

Environmental Consultants Report
Introduction: Mineral Holdings Australia Pty Ltd requires an environmental survey of a 2 ha lease area on a dolomite prospect at Togari near the headwaters of the Montagu River for a proposed quarry. A botanical and fauna habitat survey is required of the lease
area and in the vicinity of the site as part of the MRT license conditions to determine any likely impacts on threatened species or threatened vegetation communities.

Objectives: The objectives of this survey were to:

- Undertake a desktop survey to confirm the known biological records and the natural values present in the 2 ha lease area and within 5,000 metres of the site.
- Undertake a field survey of the lease area to observe and record the natural values present including the vegetation types and plant communities, the flora and in particular any threatened species.
- Determine the possible impacts of the proposed dolomite quarry on the natural values present and make recommendations on how those impacts can be minimized.

Location of Study Areas:

MAP REF: Tasmmap 1:25,000 TOGARI, 3246
Property Reference Number on the above map: 5655
BIOREGION: King

- REFERENCE POINT: North-west corner of the lease area.
  GRID REF: 323120E – 5460580N
  (All Grid References MGA Zone 55 GDA94)

Site Description: The property within which the proposed 2 ha lease area is contained and the adjoining property have both been recently clear-felled and are being developed as grazing land.
The landform is flat and low lying and not far from the Montagu River. A shallow acidic grey sandy soil overlays dolomite rock which creates poor drainage conditions during winter.

Desktop Survey of Natural Values: The DPIW database “The Natural Values Atlas” was accessed for the known biological records of the locality and environs. Records of threatened species of flora and fauna known to occur within a 5,000 metre radius of the location were also accessed. Data sourced included the vegetation types and plant communities, the occurrence of any threatened vegetation communities, the recorded
locations of any threatened species of plants and threatened fauna known or expected to occur in the vicinity.

REF POINT for the locality: 323120E – 5460580N

Desktop Survey Results:

VEGETATION COMMUNITIES:
The following vegetation communities are mapped under the TasVeg mapping program as occurring within 1,000 metres of the study area reference points.

<table>
<thead>
<tr>
<th>VEGETATION COMMUNITY</th>
<th>TasVeg Code / Map colour</th>
<th>EXTENT IN STUDY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothofagus – Phyllocladus Short Rainforest</td>
<td>RMS / Dark Blue</td>
<td>Mapped as RMU on TasVeg map. Widespread within 1km of site.</td>
</tr>
<tr>
<td>Eucalyptus nitida Wet Forest</td>
<td>WNU / Aqua with vertical lines</td>
<td>3 small areas east of the site &amp; a larger area to the south.</td>
</tr>
<tr>
<td>Eucalyptus obliqua Wet Forest (undifferentiated)</td>
<td>WOU / Light blue</td>
<td>2 small areas in the SE quadrant</td>
</tr>
<tr>
<td>Eucalyptus brookerana Forest</td>
<td>WBR / Grey with horizontal white lines</td>
<td>Large linear area from north to SW through the study area.</td>
</tr>
<tr>
<td>Acacia melanoxylon Swamp Forest</td>
<td>NAF / Olive green with vertical olive lines</td>
<td>Linear area running north to south in the western half of the study area. 300m+ from the centre point.</td>
</tr>
<tr>
<td>Leptospermum Scrub</td>
<td>SLW / Pink with horizontal yellow lines</td>
<td>4 areas in the eastern half of the study area 500m+ from the site.</td>
</tr>
<tr>
<td>Leptospermum lanigerum – Melaleuca squarrosa Swamp Forest</td>
<td>NLM / Olive green with diagonal lines</td>
<td>Small area at the northern extremity of the study area. 900m from the centre point.</td>
</tr>
<tr>
<td>Extra-urban Miscellaneous</td>
<td>FUM/ Lime green with “z”</td>
<td>At the southern extremity of the study area.</td>
</tr>
<tr>
<td>Regenerating cleared land</td>
<td>FRG/ Buff with diagonal lines</td>
<td>Small area at the southern edge of the study area.</td>
</tr>
<tr>
<td>Permanent easements</td>
<td>FPE/ Grey with horizontal red lines</td>
<td>A narrow linear area adjacent to the quarry site and extending to the north.</td>
</tr>
</tbody>
</table>
FIGURE 1: Vegetation communities as per TasVeg mapping program within 1,000 metres of the study area reference point.

CODE:  RMS ..........Nothofagus / Phyllocladus Short Rainforest
       WBR .......... Eucalyptus brookerana Forest
       WOU .......... Eucalyptus obliqua Wet Forest (undifferentiated),
       WNU .......... Eucalyptus nitida Wet Forest (undifferentiated),
       NAF .......... Acacia melanoxylon Swamp Forest
       NLM .......... Leptospermum lanigerum – Melaleuca squarrosa Swamp Forest
       SLW .......... Leptospermum Scrub.
       FUM .......... Extra-urban miscellaneous (Gravel pit)
       FRG .......... Regenerating cleared land
       FPE .......... Permanent easements

THREATENED VEGETATION COMMUNITIES:
- The community Eucalyptus brookerana Forest is listed as a threatened native vegetation community under the Nature Conservation Act 2002.
VEGETATION COMMUNITIES OF CONSERVATION SIGNIFICANCE

- *Nothofagus- Phyllocladus* Short Rainforest is adequately reserved in the state however in some bioregions it is inadequately reserved in its old-growth condition.
- *Eucalyptus nitida* Wet Forest is adequately reserved, however in its old-growth condition it is inadequately reserved in some bioregions of the state.
- *Eucalyptus obliqua* Wet Forest is considered to be under-reserved in some regions of the State.
- *Acacia melanoxylon* Swamp Forest occurs mainly in the far north-west of the state. It is considered to be under-reserved in some bioregions.
- *Leptospermum lanigerum – Melaleuca squarrosa* Swamp Forest often occurs in association with the previous community. It is considered to be under-reserved in some bioregions.
- *Leptospermum* Scrub in its many forms is widespread and found across the state.
- Western Wet Scrub is an abundant community in western Tasmania from sea level up to 750m.

THREATENED FLORA:

- One species of threatened flora listed under the Tasmanian Threatened Species Conservation Act 1995 and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 is recorded on the Natural Values Atlas database as occurring within 1,000 metres of the study area reference point. The Scrambling Ground Fern *Hypolepis distans* is listed as being endangered under both State and Commonwealth Acts. The species occurs in just a few locations in the far north-west of Tasmania and on King Island. The species also occurs in New Zealand. The species is recorded as occurring on this property near the south-west boundary and on the adjacent state forest with an estimated 100 known plants in the population. *Hypolepis distans* is listed as a priority species requiring consideration in the development of the private land component of the Tasmanian Reserve System (DPIWE 1998). This population of the species is being managed on this area of State Forest within a dedicated Flora Special Management Zone and on this private land the species being managed by prescription under the Forest Practices Plan for the property. Details of Forest Practices Plans are not generally available so the specific details of the management prescription for the fern is not known.
FIGURE 2: Known occurrence of *Hypolepis distans* within 1,500 metres of the site.

- One further threatened species has been recorded within 5,000 metres of the site. *Epilobium pallidiflorum* is listed as being rare under the Tasmanian Act.

THREATENED FAUNA:
No species of threatened fauna are recorded on the database as occurring within 500 metres of the site.
One species of threatened fauna is recorded on the database as occurring within 1,000 metres of the site.
The Wedge-tailed Eagle, *Aquila audax* subsp. *fleayi* is listed as an endangered species under both the Tasmanian *Threatened Species Protection Act 1995* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The bird requires large sheltered trees for nesting and is highly sensitive to disturbance during the breeding season.

A nest tree is located within this property and about 800 metres to the south-west of the proposed quarry site. The protection requirements for the nest site is a 500 metre and 10ha buffer zone as well as a 1,000 metre line of sight buffer during the breeding season from August to January inclusive. No activity should occur within these zones during that period. An alternative access route to the quarry site will need to be provided during this period each year. A planted screen and shelterbelt may also need to be established and maintained on the west and south-western sides of the quarry site to address the line of sight issue as all the original vegetation around the site has been recently clear-felled.

It is presumed that management prescriptions for the site of the Wedge-tailed Eagle nest have also been addressed as part of the forest practices plan for the clear-felling of the property.
FIGURE 3: Recorded Location of the Wedge-tailed Eagle nest within one km of the site.

Two further species of threatened fauna are recorded on the database within 2,000 metres of the site.

- The Spotted-tailed Quoll, *Dasyurus maculatus* subsp. *maculatus* is listed as being rare under the State Act and vulnerable under the Commonwealth Act. There is one 1986 record.
- The Striped Marsh Frog, *Limnodynastes peroni* is listed as being endangered under the State Act. It has been recorded adjacent to the Montagu River.

Threatened species of fauna recorded within 5,000 metres of the site include;

- The White (Grey) Goshawk *Accipiter novaehollandiae*
- The Eastern Barred bandicoot, *Parameles gunnii*
- The Tasmania Devil, *Sarcophilus harrisii*
The Keeled Snail, Tasmaphena lamproides

Field Survey:
Methodology: The field survey targeted the 2ha proposed for the quarry. Some observations were also made of the nearest intact vegetation. Vascular plant species were recorded, vegetation communities were observed and cross-referenced with the TasVeg map sourced from the Natural Values Atlas database. The field survey was conducted on the 1st March 2010.

Limitations: Although this survey was conducted in summer when many species are in flower or fruit no botanical survey can guarantee that all flora will be observed and recorded in a single survey in one year due to seasonal and annual variation in abundance and the possible absence of flowers and fertile material for identification. Ephemeral species which may have been present includes species of orchids, lilies, herbs grasses and other graminoids. However all significant species known to occur in the study areas and their environs have been considered in this report.

Field Survey Results: Most of the property within which the 2 ha mining lease is contained has been recently clear-felled and none of the original vegetation communities remain on the proposed quarry site. The adjacent property which has also been clear-felled is in the process of being converted into pasture and it is presumed that this property is to be cultivated and sown to pasture also. There were numerous post disturbance species such as Senecio sp. growing prolifically on the site as well as some woody native species in the early stages of regeneration. According to the TasVeg vegetation community map the original community on and adjacent to the site was Eucalyptus brookerana Forest and this is supported to an extent by the presence of young E. brookerana seedlings up to 1.0 metre in height. E. brookerana Forest is listed as a threatened vegetation community under the Tasmanian Nature Conservation Act 2002 however it does not now occur on or adjacent to the site.

THREATENED VEGETATION COMMUNITIES: No vegetation community listed under the Tasmanian Nature Conservation Act 2002 was observed during the field survey as the area has been clear-felled and is in the process of being converted into grazing land. Young seedlings up to 1.0 metres high of Eucalyptus brookerana were observed which is indicative of the likelihood that the threatened vegetation community Eucalyptus brookerana Forest was present on the site prior to clear felling.

VEGETATION COMMUNITIES OF CONSERVATION SIGNIFICANCE: No vegetation community of conservation significance remained on the area surveyed.

THREATENED FLORA: No plant species listed under the Tasmanian Threatened Species Conservation Act 1995 and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 was observed or recorded during the field survey. No plants of Hypolepis distans or Epilobium pallidiflorum were observed during the survey either within or adjacent to the target area.

FLORA OF CONSERVATION SIGNIFICANCE: No non-threatened flora of conservation interest was observed during the field survey.
THREATENED FAUNA: No species of threatened fauna were observed during the field survey. None of the threatened species known to occur within 5km of the site were observed during the survey.

THREATENED FAUNA HABITAT: No potential habitat for any threatened species of fauna was observed on or adjacent to the proposed quarry site. A known nest tree for the Wedge-tailed Eagle is located within this property and about 800 metres south-west of the proposed quarry site.

ENVIRONMENTAL WEEDS: Numerous weeds were present on the site as would be expected on a completely cleared patch of forest. However no Blackberry or Spanish Heath which are significant environmental weeds in the district was observed.

PHYTOPHTHORA: There was no symptomatic field evidence observed of the root pathogen *Phytophthora cinnamomi* during this field survey.

**Survey Conclusions:**
No vegetation community listed as threatened under the Tasmanian *Nature Conservation Act 2002* was observed during the survey.

No vegetation community of conservation significance was present within the survey area.

No species of flora which is listed under the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* was observed during the field survey.

No species of threatened fauna was observed during the survey.

No potential habitat for threatened species of fauna was observed during the survey.

No significant environmental weeds were observed within the survey area.

No symptomatic evidence of Phytophthora was observed during the survey.

**Recommendations:**

COMPLY with the QUARRY CODE OF PRACTICE June 1999 (DPIWE) in regard to the development and management of the quarry site.

VEGETATION COMMUNITIES: No natural vegetation community remains on or adjacent to the proposed quarry site and no specific action is required. Future revegetation of the site post quarry will depend on the land use of the adjacent property at the time.

THREATENED VEGETATION COMMUNITIES: No threatened vegetation community was observed during the field survey and no specific action is required.

THREATENED FLORA: No species of threatened flora was observed or recorded during the field survey and no specific action is required.

FLORA OF CONSERVATION SIGNIFICANCE: No flora of specific conservation significance was observed during the survey and no action is required.

THREATENED FAUNA AND THREATENED FAUNA HABITAT: Apply the required management prescriptions for the known nest tree of the Wedge-tailed Eagle on the property.
- Property owner to retain a 10ha area of forest around the nest site. (Should already be part of the Forest Management Plan approved by the Forest Practices Authority.
- During the breeding season from August to January inclusive and each year, provide an alternative access route to the quarry site. The existing road should be closed during this period.
- During the breeding season each year exclude any activity within 500 metres of the nest site and maintain a line of sight buffer of 1,000 metres.
- A planted shelterbelt and screen may need to be established on the west and south-west sides of the quarry site in order to achieve the 1,000 metre line of sight buffer.

ENVIRONMENTAL WEEDS: Comply with the Quarry Code of Practice 1999 published by DPIWE in regard to the management of weeds on the proposed quarry site.

PHYTOPHTHORA: Observe and follow accepted protocols in regard to hygiene and wash-down procedures during the development and operation of the quarry to avoid the introduction of the pathogen to the site.

Philip Milner
Vegetation Consultant

Appendix 1:
Vegetation Communities and Species Recorded

No intact vegetation communities remain on the proposed quarry site. The following is a list of the species recorded during the field survey.

TREES (present only as seedlings up to 1.0 metres high)
Acacia melanoxylon Blackwood occasional
Eucalyptus brookerana Brookers Gum occasional
Nothofagus cunninghamii Myrtle uncommon

LARGE SHRUBS (present only as seedlings up to 0.5 metres high)
Acacia mucronata Caterpillar Wattle occasional
Acacia verticillata Prickly Moses occasional
<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Banksia marginata</strong></td>
<td>Silver Banksia</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Leptospermum lanigerum</strong></td>
<td>Woolly Teatree</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Melaleuca ericifolia</strong></td>
<td>Swamp Paperbark</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Melaleuca squarrosa</strong></td>
<td>Sweet-scented Paperbark</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Nematolepis squamea</strong></td>
<td>Satinwood</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Ozothamnus rosmarinifolia</strong></td>
<td>Swamp Everlastingbush</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Pomaderris apetala</strong></td>
<td>Dogwood</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Leptospermum scoparium</strong></td>
<td>Manuka</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Monotoca glauca</strong></td>
<td>Goldey wood</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Tasmannia lanceolata</strong></td>
<td>Native Pepper</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Bauera rubioides</strong></td>
<td>Wiry Bauera</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Drosera pygmeae</strong></td>
<td>Dwarf Sundew</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Epilobium billardieranum</strong></td>
<td>Marsh Willowherb</td>
<td>common</td>
</tr>
<tr>
<td><strong>Euchiton sp.</strong></td>
<td>A Cottonleaf</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Gonocarpus micranthus</strong></td>
<td>Creeping Raspwort</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Hydrocotyle hirta</strong></td>
<td>Hairy Pennywort</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Lobelia anceps</strong></td>
<td>Angled Lobelia</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Lyttrum hyssopifolia</strong></td>
<td>Small Loosetrife</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Senecio minimus</strong></td>
<td>Shrubby Fireweed</td>
<td>abundant</td>
</tr>
<tr>
<td><strong>Carex appressa</strong></td>
<td>Longleaf Tallsedge</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Gahnia grandis</strong></td>
<td>Cutting Grass</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Isolepis fluitans</strong></td>
<td>Floating Clubedge</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Isolepis sp.</strong></td>
<td>A Clubedge</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Juncus procera</strong></td>
<td>Tall Rush</td>
<td>common</td>
</tr>
<tr>
<td><strong>Lepidosperma elatius</strong></td>
<td>Tall Swordedge</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Blechnum nudum</strong></td>
<td>Fishbone Waterfern</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Gleichenia dicarpa</strong></td>
<td>Pouched Coralfern</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Histiopteris incisa</strong></td>
<td>Bats-wing Fern</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Hypolepis rugulosus</strong></td>
<td>Ruddy Groundfern</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Pteridium esculentum</strong></td>
<td>Bracken</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Anagallis arvensis</strong></td>
<td>Scarlet Pimpernel</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Centaurium erythraea</strong></td>
<td>Spike Centaury</td>
<td>common</td>
</tr>
<tr>
<td><strong>Cirsium arvense</strong></td>
<td>Californian Thistle</td>
<td>uncommon</td>
</tr>
<tr>
<td><strong>Cirsium vulgare</strong></td>
<td>Spear Thistle</td>
<td>common</td>
</tr>
<tr>
<td><strong>Hypocharis glabra</strong></td>
<td>Catsear</td>
<td>occasional</td>
</tr>
<tr>
<td><strong>Mentha pulegium</strong></td>
<td>Penntroyal</td>
<td>uncommon</td>
</tr>
</tbody>
</table>
MAP 2: Proposed 2 ha lease area hatched in centre of map.
MAP 3. Location of proposed quarry at Togari. GRID REF: 323120E – 5460580N.
NW Corner Other corners approximate.
PHOTO 1: Proposed quarry site from south-east corner looking north-west

PHOTO 2: Near north-west corner of proposed quarry site.
PHOTO 3: Cleared area adjacent to the site. *E. brookerana* seedlings and *E. nitida* Wet Forest in background to the east.

PHOTO 4: Cleared area adjacent to the site. *Acacia melanoxylon* Swamp Forest in background to the south-east.
Appendix 2

Commonwealth EPBC Act Report
Protected Matters Search Tool

You are here: Environment Home > EPBC Act > Search

EPBC Act Protected Matters Report

9 June 2010 11:25

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

You may wish to print this report for reference before moving to other pages or websites.

The Australian Natural Resources Atlas at http://www.environment.gov.au/atlas may provide further environmental information relevant to your selected area. Information about the EPBC Act including significance guidelines, forms and application process details can be found at http://www.environment.gov.au/epbc/assessmentsapprovals/index.html

Search type: Point
Buffer: 1 km
Coordinates: -40.99166, 144.9

Report Contents:
- Summary
- Details
  - Matters of NES
  - Other matters protected by the EPBC Act
  - Extra Information

Caveat
Acknowledgments

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detailed part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html.

<table>
<thead>
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<th>Category</th>
<th>Significance</th>
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</thead>
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<tr>
<td>World Heritage Properties</td>
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<tr>
<td>National Heritage Places</td>
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</tr>
<tr>
<td>Wetlands of International Significance (ramsar sites)</td>
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</tr>
<tr>
<td>Commonwealth Marine Areas</td>
<td>None</td>
</tr>
<tr>
<td>Threatened Ecological Communities</td>
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</tr>
</tbody>
</table>

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the ‘environment’, these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.


Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

A permit may be required for activities in or on a Commonwealth area that affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at [http://www.environment.gov.au/epbc/permits/index.html](http://www.environment.gov.au/epbc/permits/index.html).

Commonwealth Lands: None
Commonwealth Heritage Places: None
Places on the RNE: None
Listed Marine Species: 8
Whales and Other Cetaceans: None
Critical Habitats: None
Commonwealth Reserves: None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves: 1
Other Commonwealth Reserves: None
Regional Forest Agreements: 1

Details

Matters of National Environmental Significance

<table>
<thead>
<tr>
<th>Threatened Species</th>
<th>Status</th>
<th>Type of Presence</th>
</tr>
</thead>
</table>
| Birds
Angora turkey      | Endangered | Species or species habitat may occur within area |
| Wedge-tailed Eagle (Tasmanian) | Endangered | Species or species habitat may occur within area |
| Lathamus discolor | Endangered | Species or species habitat may occur within area |
| Swift Parrot      | Endangered | Species or species habitat may occur within area |
| Crabs, lobsters, shrimps, woodlice | Vulnerable | Species or species habitat may occur within area |
| Astacopsis gouldi | Vulnerable | Species or species habitat may occur within area |
| Tasmanian Giant Freshwater Lobster, Giant Lobster, | Vulnerable | Species or species habitat may occur within area |
| Gaffe Freshwater Crayfish | Vulnerable | Species or species habitat may occur within area |
| Mammals

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Type of Presence</th>
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</thead>
<tbody>
<tr>
<td><em>Dasyurus maculatus maculatus</em> (Tasmanian population)</td>
<td>Vulnerable</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Spotted-tail Quoll, Soot-tailed Quoll, Tiger Quoll (Tasmanian population)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Perameles gunnii gunnii</em></td>
<td>Vulnerable</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>Eastern Barred Bandicoot (Tasmania)</td>
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<td></td>
</tr>
<tr>
<td><em>Sarcophilus harrisii</em></td>
<td>Endangered</td>
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</tr>
<tr>
<td>Tasmanian Devil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ray-finned fishes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Prochilodus maraena</em></td>
<td>Vulnerable</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Australian Grayling</td>
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<tr>
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<td></td>
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<tr>
<td><em>Haliaeetus leucocephalus</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>White-bellied Sea-Eagle</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hirundapus caudacutus</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>White-throated Needletail</td>
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<td></td>
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<tr>
<td><em>Myzornis cyanopeca</em></td>
<td>Migratory</td>
<td>Breeding likely to occur within area</td>
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<tr>
<td>Satin Flycatcher</td>
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<tr>
<td>Migratory Terrestrial Species</td>
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<td></td>
</tr>
<tr>
<td>Birds</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ardea alba</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Great Egret, White Egret</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ardea ibis</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Latham's Snipe, Japanese Snipe</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td><em>Lamprotornis longicauda</em></td>
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<td></td>
</tr>
<tr>
<td>Migratory Marine Birds</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Aotus pacificus</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Fork-tailed Swift</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ardea alba</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Great Egret, White Egret</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ardea ibis</em></td>
<td>Migratory</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Matters Protected by the EPBC Act</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listed Marine Species [Dataset Information]</td>
<td>Status</td>
<td>Type of Presence</td>
</tr>
<tr>
<td>Birds</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Aotus pacificus</em></td>
<td>Listed -</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Fork-tailed Swift</td>
<td>overfly marine area</td>
<td></td>
</tr>
<tr>
<td><em>Ardea alba</em></td>
<td>Listed -</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Great Egret, White Egret</td>
<td>overfly marine area</td>
<td></td>
</tr>
<tr>
<td><em>Ardea ibis</em></td>
<td>Listed -</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td>overfly marine area</td>
<td></td>
</tr>
<tr>
<td><em>Gallinago hardwickii</em></td>
<td>Listed -</td>
<td>Species or species habitat may occur within area</td>
</tr>
<tr>
<td>Latham's Snipe, Japanese Snipe</td>
<td>overfly marine area</td>
<td></td>
</tr>
<tr>
<td><em>Haliaeetus leucocephalus</em></td>
<td>Listed</td>
<td>Species or species habitat likely to occur within area</td>
</tr>
<tr>
<td>White-bellied Sea-Eagle</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hirundapus caudacutus
White-throated Needletail
Listed - overfly marine area
Species or species habitat may occur within area

Lathamus discolor
Swift Parrot
Listed - overfly marine area
Species or species habitat may occur within area

Myiagra cyaneateca
Satin Flycatcher
Listed - overfly marine area
Breeding likely to occur within area

**Extra Information**
State and Territory Reserves [Dataset Information]
Montagu Swamp Forest Reserve, TAS
Regional Forest Agreements [Dataset Information]
Note that all RFA areas including those still under consideration have been included.

**Caveat**
The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World Heritage and Register of National Estate properties, Wetlands of International Importance, Commonwealth and State/Territory reserves, listed threatened migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under "type of presence". For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations, and climatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the migratory and marine provisions of the Act have been mapped.

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites;
- seals which have only been mapped for breeding sites near the Australian continent.

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Acknowledgments

This database has been compiled from a range of data sources. The Department acknowledges the following custodians who have contributed valuable data and advice:

- New South Wales National Parks and Wildlife Service
- Department of Sustainability and Environment, Victoria
- Department of Primary Industries, Water and Environment, Tasmania
- Department of Environment and Heritage, South Australia Planning SA
- Parks and Wildlife Commission of the Northern Territory
- Environmental Protection Agency, Queensland
- Birds Australia
- Australian Bird and Bat Banding Scheme
- Australian National Wildlife Collection
- Natural history museums of Australia
- Queensland Herbarium
- National Herbarium of NSW
- Royal Botanic Gardens and National Herbarium of Victoria
- Tasmanian Herbarium
- State Herbarium of South Australia
- Northern Territory Herbarium
- Western Australian Herbarium
- Australian National Herbarium, Atherton and Canberra
- University of New England
- Other groups and individuals

ANU-LIMS VERSION 1.2, CENTRE FOR PLANT RESEARCH AND ENVIRONMENTAL STUDIES, AUSTRALIAN NATIONAL UNIVERSITY was used extensively for the production of draft maps of species distribution. Environment Australia is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

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GPO Box 787 Canberra ACT 2601 Australia
Telephone: +61 (0)2 6274 1111

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Appendix 3

Aboriginal Heritage Assessment
Tom Dickson

From: "Adam Marshall" <Adam.Marshall@heritage.tas.gov.au>
To: <dickson@uwpgond.com>
Cc: "File" <File@depha.tas.gov.au>
Sent: Friday, 11 June 2010 3:00 PM
Subject: Aboriginal Heritage Desktop Assessment - Tohari Mining Lease

RE: ABORIGINAL HERITAGE DESKTOP ASSESSMENT
Tohari Mining Lease, NW Tasmania

Dear Tom,

Aboriginal Heritage Tasmania has completed a search of the Tasmanian Aboriginal Site Index (TASI) regarding the proposed mining lease at Tohari, NW Tasmania and can advise that there are no Aboriginal heritage sites recorded within or close to the property. Due to the area being highly disturbed it is believed that the area has a low probability of Aboriginal heritage being present.

Accordingly there is no requirement for an Aboriginal heritage investigation and Aboriginal Heritage Tasmania have no objection to the project proceeding.

Please be aware that all Aboriginal heritage is protected under the Aboriginal Relics Act 1875. If at any time during works you suspect Aboriginal heritage, cease works immediately and contact Aboriginal Heritage Tasmania for advice.

If you have any queries please do not hesitate to contact Aboriginal Heritage Tasmania.

Kind Regards,

Adam Marshall
Aboriginal Heritage Advisor
Aboriginal Heritage Tasmania
8th Floor, Lands Building, 134 Macquarie Street, Hobart Tas 7000
GPO Box 771, Hobart, TAS 7001
(03) 62338365

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11/06/2010