23 March 2026

Steve O'Donoghue

Director, Resource Assessments

Department of Planning and Environment

(Lodged on NSW Planning Portal – Major Projects)

Proposed Modification 4 of PA 08_0142

Dear Steve,

1.0 Background

Mackas Sand Pty Ltd operates sand extraction operations in two locations being:

- Lot 218 DP 1044608 (Lot 218) located 4km east of Williamtown NSW and
- Lot 220 DP 1049608 (Lot 220) at Salt Ash located 9km east of Williamtown.

These sites are approximately 40km and 45km respectively north of Newcastle, NSW, and 32km and 28km respectively west of Nelson Bay, NSW.

Project Approval PA 08_0142 for the Mackas Sand Project was granted on 20 September 2009 and includes extraction of up to 1 million (1,000,000) tonnes per annum (tpa) from each of Lot 218 and Lot 220. Modifications of PA 08_0142 to-date are:

- Modification 1 to PA 08_0142 was approved on 30 September 2013 by the Planning Assessment Commission (PAC) to approve an alternative access route to Lot 218 (Mod 1);
- Modification 2 was approved by the PAC on 15 March 2016 relating to an increase in truck movements (Mod 2), collectively forming the Approved Operations. Modification 3 was withdrawn, and
- Modification 3 was withdrawn.

Sand extraction and processing in accordance with PA 08_0142 is permitted at both locations until 31 December 2029. Sand product is transported by road to service customers in the construction and building materials industries.

Both Lot 218 and Lot 220 are owned by the Worimi Local Aboriginal Land Council (Worimi LALC). Mackas Sand has a commercial agreement with the Worimi LALC to extract sand from Lot 218 and Lot 220 until 2057.

1.2 Strategic sand supply and conservation of 4,400 hectares of coastal forest land

The Department of Planning Director-General's Environmental Assessment Report (DoP, 2009) Section 1.1 includes the following background to the development of PA 08_0142, Worimi LALC and conservation of coastal habitat:

> *The proposed sites are part of some 5,000 hectares of contiguous land owned by the LALC. This ownership was formally recognised in 2001, following a series of successful land claims under the Aboriginal Land Rights Act 1983.*
>
> *Following the ruling, the LALC entered into negotiations with the State government regarding the future use and management of this land under a 'lease-back' arrangement, and in February 2007 the negotiations culminated with an agreement between the parties.*
>
> *A key aspect of this agreement was the establishment of the Worimi Conservation Lands, which comprise 4,438 hectares including Worimi State Conservation Area, Worimi National Park and Worimi Regional Park. These lands adjoin Lot 218 to the north, south and east and Lot 220 to the south.*
>
> *The other main aspect of this agreement was to arrange for the development of the sand resources on Lot 218 and Lot 220 to fund an ongoing cultural development program for the LALC.*

Furthermore, in Table 1, "Major components of the proposed project" the DoP noted Project Life as:

> *Up to 20 years, although the sand resource on Lot 218 could continue indefinitely with the on-site sand migration*.

To intercept the mobile sand dunes and prevent them from progressing to the north and into the Worimi National Park, operations at Lot 218 sand extraction area are configured as a long trench, generally around 50m wide at the base, located just south of the boundary between Lot 218 and the National Park, within the much larger approved extraction area. High quality sand resources are extracted, screened and sold by Mackas Sand in accordance with PA 08_0142, with royalties paid to the Worimi LALC.

In its conclusion, DoP 2009 noted:

> *Importantly, the Department recognises the project's relationship with the wider Worimi Conservation Lands, noting that the project assisted in the creation of over 4,400 hectares of environmental conservation land on the Stockton Bight, through the historic agreement between the Worimi Local Aboriginal Land Council and the State government in 2007.*
>
> *The project would also provide considerable socio-economic benefits for the Worimi Local Aboriginal Land Council and the local Aboriginal community, as it would generate considerable long term income to fund the Local Aboriginal Land Council's cultural heritage, social and environmental programs.*
>
> *At the same time it would significantly boost much needed fine sand supplies for the Hunter and Sydney construction industry.*
>
> *On balance, the Department is satisfied that the project's benefits outweigh any residual costs, that it is in the public interest, and that it should be approved, subject to conditions.*

1.3 Self-replenishing sand resource

The sand being extracted at Lot 218 is sourced from the Stockton Bite mobile sand dune system with no vegetation required to be removed prior to the sand being extracted. The extraction area was designed to intercept the movement of sand dunes which migrate to the north-west destroying coastal forest habitat in the Worimi National Park adjacent to Lot 218.

The ongoing extraction of sand, due to the self-replenishing nature of the mobile sand dunes, was discussed in the original project EIS (Umwelt, 2009). The following extracts from Umwelt 2009 refer to the indefinite nature of the resource on Lot 218 due to the ongoing replenishment of windblown sand:

Volume 1, page 5:

> *It is also estimated that up to 1.4 million tonnes of windblown sand migrates into the proposed operational area at Lot 218 per year through natural processes. The windblown sand is currently smothering on average approximately 2.6 hectares of native forest adjacent to Lot 218 each year. The proposal will create a long term and potentially indefinite supply of construction sand and at least 20 years supply of industrial grade sand for the Hunter and Sydney regional markets.*

Volume 1, page 24, section 1.1.4 Overview of the proposal:

> *Wind-blown sand will continue to blow into previously worked areas during the life of the operation, potentially giving the operation an indefinite life span. It is estimated*

that on average approximately 1.4 million tonnes of sand per year is blown into the proposed extraction area on Lot 218.

Volume 1, page 42, section 2.3.3 Extraction and Haulage:

> *Extraction will commence at the south-western end of the extraction area and progress initially in an easterly direction and then back as dune progression replenishes previously worked areas. It is estimated that approximately 1.2 to 1.4 million tonnes of sand per year migrates into the 5.3 kilometre length of Lot 218, potentially giving the operation an indefinite lifespan.*
>
> *Approximately 50 percent of sand from Lot 218 will be loaded directly onto trucks and transported or blended with other products without any processing. The remaining sand will be processed through vibrating screens as discussed in Section 2.3.4.*
>
> *Typically, extracted sand will be transported by 33 tonne trucks with a 'truck and dog' arrangement. Up to 10,000 tonnes of sand may be stockpiled in the extraction area at any one time. Volvo A40 six-wheel articulated haulers or similar may be used to transport sand within the operational area, as required.*

Volume 1, page 44, section 2.3.7 Proposed Timeframe:

> *Operations at Lot 218 may continue indefinitely, due to the natural replenishment of the sand resource at this site through the movement of wind-blown sand into the operational area.*

Volume 1, page 45, section 2.3.8 Rehabilitation and Final Land Use:

> *The final landform will be governed by the natural movement of sand into the extraction area with mobile sand progressively filling the extraction. As discussed, sand extraction at the proposed rate of up to 1 million tonnes per year could be sustained for the foreseeable future due to the ongoing replenishment of the sand reserves with windblown sand.*

Furthermore, the project approval PA 08_0142 (granted 2009) anticipated ongoing extraction of sand subject to further approval in Condition 5 in Schedule 2 of PA 08_0142 which provides that quarrying operations may take place on site until 31 December 2029. Relevantly, the note following condition 5 provides:

Notes:

- *Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Secretary. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated to a satisfactory standard;*

- *The Department acknowledges that additional sand resources may exist on the site at the end of this period. Any extension of quarrying operations after this time will be subject to further approval.*

As anticipated in the EIS and PA 08_0142, sand dune movement at Lot 218 will continue to replenish the raw sand resources at Lot 218 by blowing sand into the established excavations into the future, and can be extracted potentially indefinitely. As the footprint and depth of the excavations are controlled by the consent, and will remain the same into the future, no additional impacts are predicted to occur from the proposed ongoing operations in Modification 4.

1.5 Unique project aspects

Mackas Sand notes the unique nature of the sand extraction operations being:

- The sand extraction activities were established as part of an agreement between Worimi LALC and the NSW State government resulting in 4,400Ha of land becoming conservation land including the Worimi National Park. The Worimi National Park, adjoining the Lot 218 sand extraction area, is now protected from further migration of sand dunes consuming areas of coastal forest by the establishment of the Mackas Sand project. This area is a significant area of Coastal Sand Apple – Blackbutt Forest which has been identified as regionally significant ecosystem and is known to provide habitat for a range of threatened flora and fauna species;
- As outlined in the project EIS (Umwelt, 2009) and in the Director General's Assessment Report (DoP, 2009) this sand extraction project is not a typical quarry with a finite resource limit. These documents show how the resource will self-replenish over time as windblown sand continues to report into the excavated area, which prevents the sand migration from destroying adjoining coastal forest habitat;
- The sand extraction operation is a valuable supplier of quality sand for the construction industry in NSW, as well as a supplier to industrial manufacturing businesses, and
- Sand extraction also results in the provision of significant economic benefits to the Worimi LALC.

The combination of these aspects make this project unique, being a self-replenishing source of sand that provides a significant social benefit to Worimi LALC in addition to broader community benefits through the ongoing protection of a significant area of coastal vegetation and the supply of high quality sand resources.

1.5 Operations to-date

Sand extraction at Lot 218 has progressed along the agreed extraction area for approximately 4.5km along the southern boundary of the adjoining Worimi National Park, with approximately 500m remaining to reach the eastern extent of the approved extraction area. The trench configuration is designed to protect the adjoining National Park vegetation with minimal disturbance to culturally significant dune system.

Sand extraction at Lot 220 has removed approximately 80 percent of sand approved to be extracted and site rehabilitation has progressed. Lot 220 sand is not sourced from active transient sand dunes and requires removal of vegetation prior to sand extraction, and subsequent rehabilitation of the site.

The locations of the sand extraction areas are provided in Figure 1, and details of the Lot 218 agreed extraction area trench configuration are shown on Figure 2 *(draft figures only – final figure to be developed)*

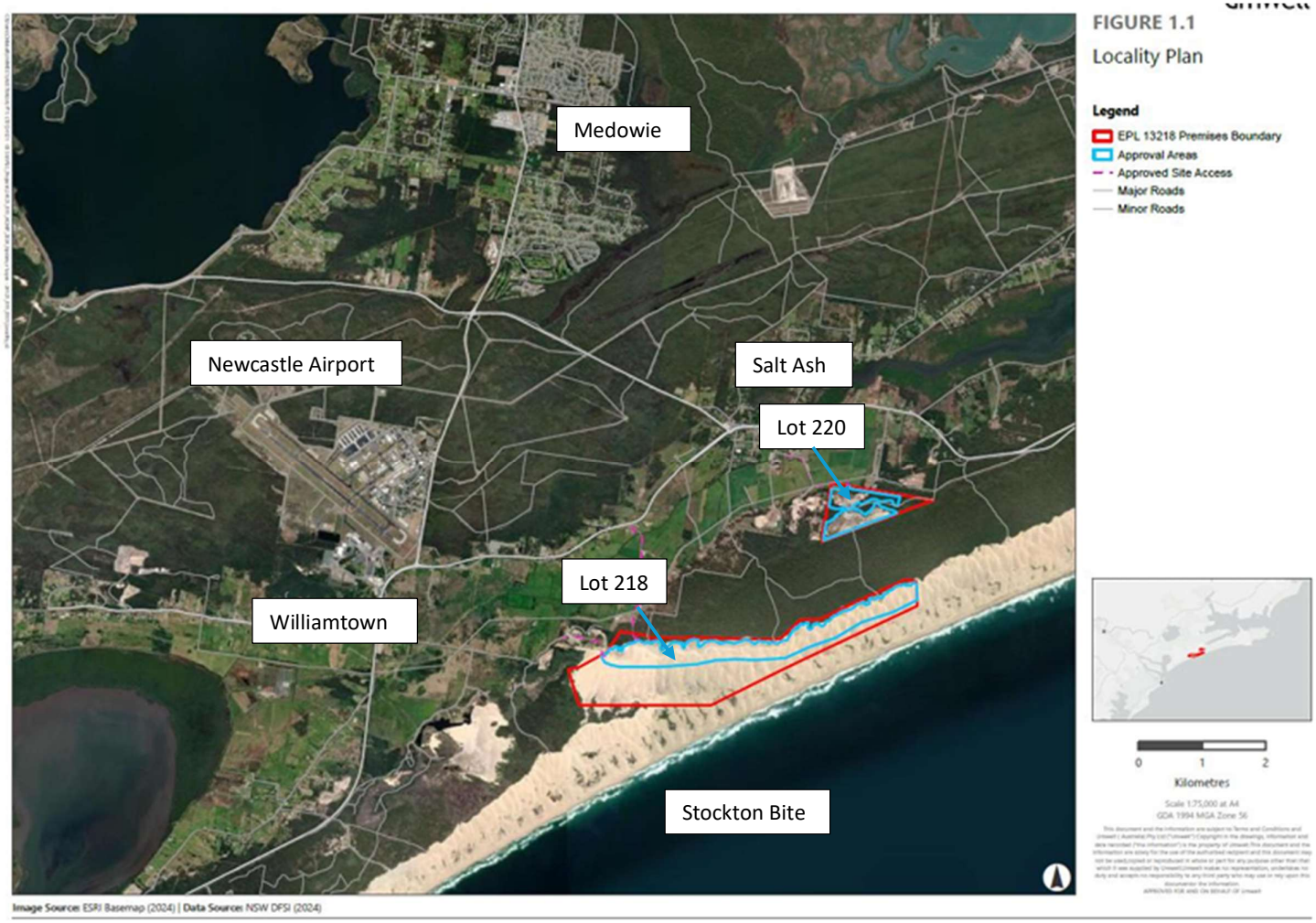

Figure 1- Location of approved operations (draft only)

Figure 2- Location of Lot 218 Extraction Area (Approx)

1.4 Site rehabilitation to-date

Rehabilitation of the site is undertaken in accordance with PA 08_0142 Schedule 3, Conditions 24 to 28. Final landform for Lot 220 is provided in PA 08_0142 Appendix 4.

A Rehabilitation Management Plan and a Long Term Management Strategy have been developed and approved per PA 08_0142, Schedule 3, Condition 25.

Sand extraction at Lot 220 has been substantially progressed, along with progressive rehabilitation of extracted areas, as required under PA 08_0142. A rehabilitation bond has also been established for Lot 220.

However, with regard to Lot 218, as noted under Condition 24, at the time of the consent being granted there was no clear strategy for the rehabilitation of Lot 218. No vegetation was proposed to be removed on Lot 218 in the original EIS (Umwelt, 2009) as only mobile sand dunes were proposed to be extracted. Revegetation was not proposed other than for a narrow revegetated bund to be established along the edge of the Lot 218 extraction area.

The transient nature of the landform at Lot 218 – being constantly moving windblown sand dunes - represents a challenge to defining a suitable final landform and has also resulted in damage to areas of revegetated bund areas established to-date. PA 08_0142 Schedule 3, Condition 24 requires the long-term strategy for Lot 218 to be included in the Landscape Management Plan, at a future date.

1.5 Ongoing sand movement and habitat losses

At several locations along the northern extraction limit at Lot 218, sand has continued to migrate up to 80m to the north since the project was approved, destroying vegetation and encroaching on the National Park, as shown in Plate 1. This natural process is not a result of sand extraction activities.

Plate 1 – Sand beyond the approved extraction limit has continued to migrate to the north destroying vegetation.

Plate 2 – Sand beyond the approved extraction limit has continued to migrate to the north destroying vegetation.

2.0 The proposed modification

The Proposed modification includes two key aspects being

a) increased timeframe for continued operations, and
b) revised extraction area at Lot 218 to enable final landform to be established and reduce sand migration and habitat losses.

Further details of these aspects are provided below.

2.1 Continued operations during extended timeframe

Mackas Sand are proposing to continue sand extraction past the currently approved timeframe of 31 December 2029 (per PA 08_0142) for an additional period of 20 years until 30 September 2049. The Proposal would involve the ongoing retrieval of wind-blown sand on Lot 218, which enters the excavated trench area as a natural landscape process blowing from the south and east. This enables continued extraction of sand on Lot 218 without extending the approved extraction limit.

Ongoing sand extraction and rehabilitation activities will continue on Lot 220. Sand extraction limit is proposed to be reduced to 500,000 tpa due to the limited resource remaining on this site, resulting in reduced road transport levels. Rehabilitation activities include landform shaping and revegetation and ongoing land management practices, as provided for under the Approved Operations.

The proposed modification would not involve any changes to the nature of the extractive activities on lot 218 or Lot 220. Further there would be:

- no increased extraction annual tonnage;
- reduced annual tonnages from Lot 220 to 500,000 tpa;
- no change to currently approved extraction methods;
- no changes to operating hours;
- no changes to employee numbers;
- continued road transport of products, and
- ongoing environmental monitoring, management and reporting systems.

2.2 Lot 218 final landform and modified extraction area

Lot 218 extraction area has been established in accordance with PA 08-0142 and in a long trench configuration as agreed with Worimi LALC. This configuration is designed to intercept natural wind-blown sand movements which would otherwise continue to consume coastal forest vegetation in the adjoining Worimi National Park, in a narrow trench to minimise disturbance within Lot 218, per agreement with the Worimi LALC, the landowner.

Extraction up to the extraction limit (on the northern side) per PA 08-0142 has resulted in an extraction batter established generally at or below the natural angle of repose of the sand (up to approximately 42 degrees (1V : 1.1H) being typical for in-situ sand with an inherent moisture content.

Modification 4 will address the long-term final landform for Lot 218 by proposing to reshape the northern batter. The northern batter angle continues to change over time due to natural processes such as the effects of moisture loss which can lead to slumping of the batter, resulting in draw down of the slope angle, and conversely, loose

sand can be blown up the batter wherein sand continues to be blown towards the north-west. These changes have been observed to be seasonal, depending on weather conditions such as rainfall and the strength and direction of the prevailing winds, and the intensity of storms. Both flattening and steepening of the batter have been observed to occur through wind effects. These changes are characteristic of the natural geomorphological processes that form the transient sand dunes to the east and south of the extraction area.

In addition, some areas of sand that remain north of the approved extraction face continue to progress to the north-west and consume vegetation, including within the National Park. Plate 1 and Plate 2 show areas where sand dunes have continued to migrate to the north since the Lot 218 operations were approved, resulting in ongoing lost vegetation.

A conceptual cross section showing the approved operations general layout is provided in Figure 3. The current layout of Lot 218 extraction area is provided in the conceptual cross section shown in Figure 4.

Mackas Sands has extensive experience in extracting sand in this location since PA 08_0142 was granted, which indicates that the height of the final batter needs to be as low as practicable to limit the amount of loose sand that can migrate to the north-west over time, and the extraction batter should be shaped at a slope angle of around 30 degrees (1V : 1.7H) to improve slope stability and reduce wind effects. Both these aspects assist to slow down the progress of sand migration to the north-west due to the wind.

Mackas Sand proposes to:

a) Modify the extraction limit in areas with no vegetation to enable the top of the extraction face to be advanced beyond the original extraction limit in PA 08-0142 (remaining within Lot 218);
b) Reduce the height of the final sand face where practicable, and
c) Shape the final batter down at approximately 1V in 1.7H – or approximately 30 degrees to improve slope stability.

A conceptual cross section showing the proposed changes to Lot 218 layout in Modification 4 is provided in Figure 5.

These changes are proposed to achieve a more stable long-term landform and to reduce the likelihood of ongoing migration of sand towards the north-west, resulting in the ongoing loss of vegetation habitat. In addition, the reshaped final batter will be more consistent with visual characteristics of surrounding sand dunes.

The current extraction area limit is provided in PA 08_0142 Appendix 1, and is shown on Figure 6. Figure 7 shows the proposed revised extraction area. The extraction area limit is required to be moved to the north up to approximately 80 m, varying along the 5km extraction area length, as determined by the current extent of sand movement. This alignment will be established by a survey of vegetation limits and the lot boundary.

Figure 3 – Lot 218 conceptual Cross Section –layout as approved

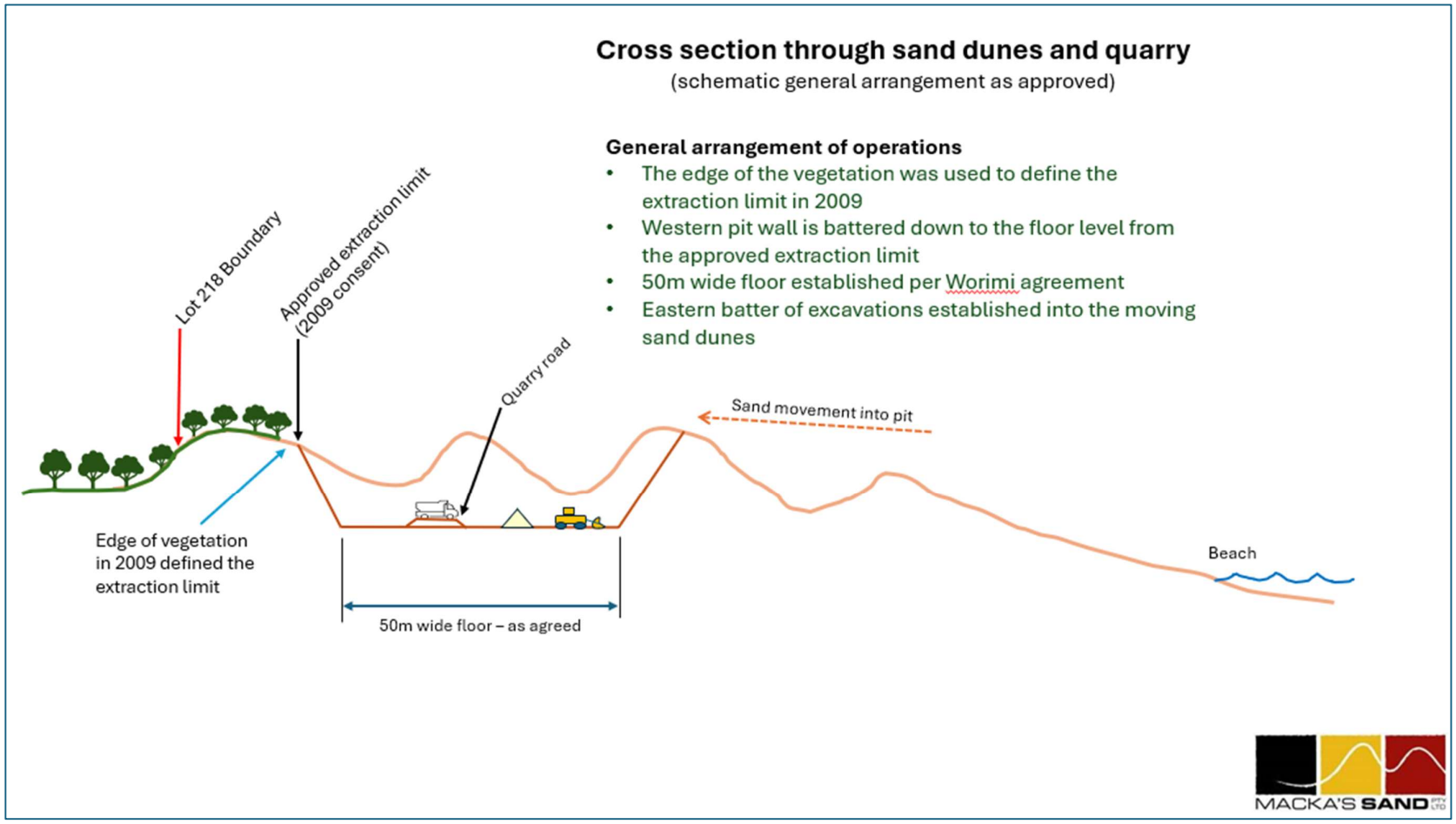

Figure 4 – Lot 218 conceptual Cross Section – current layout

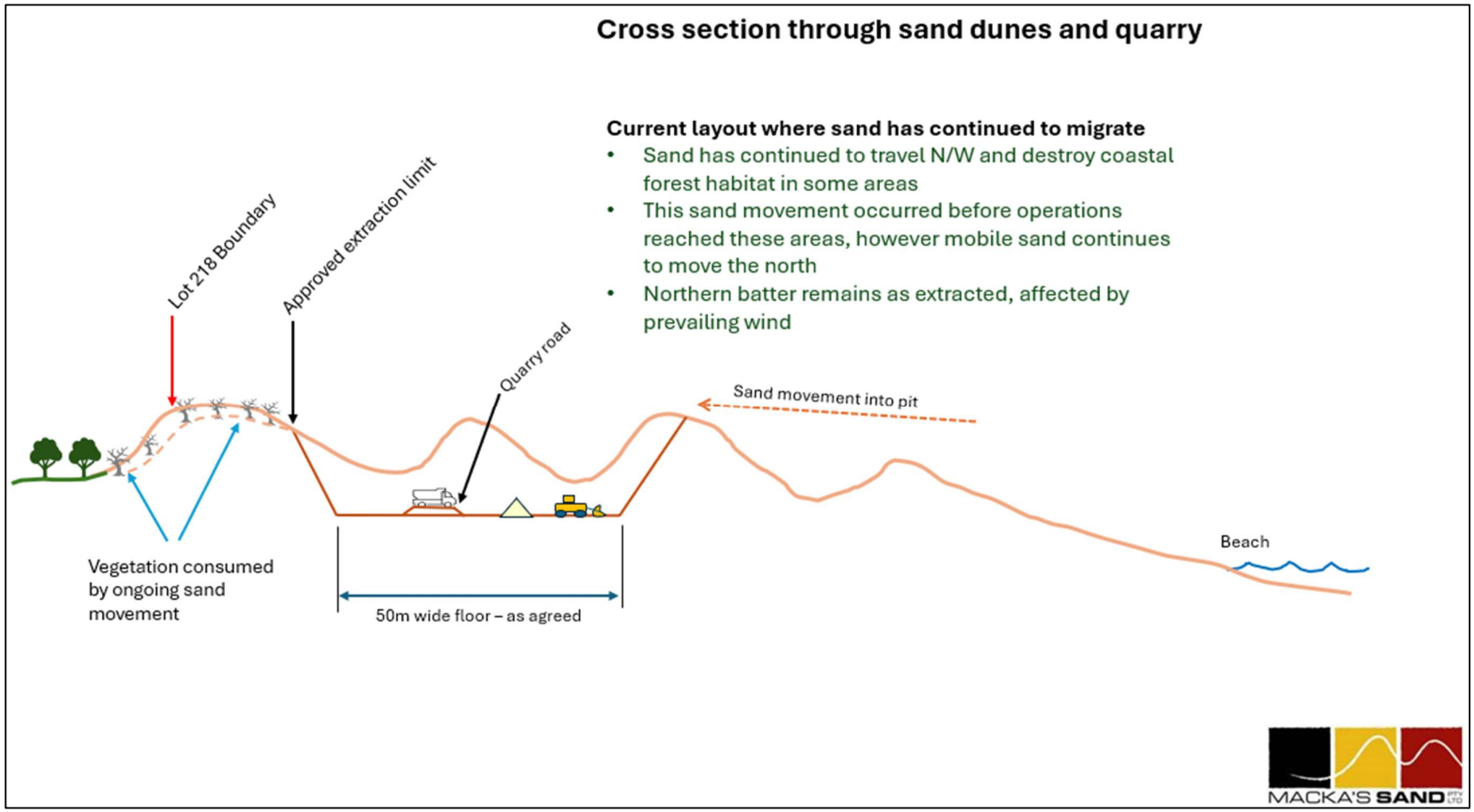

Figure 5 – Lot 218 conceptual Cross Section – proposed modified layout

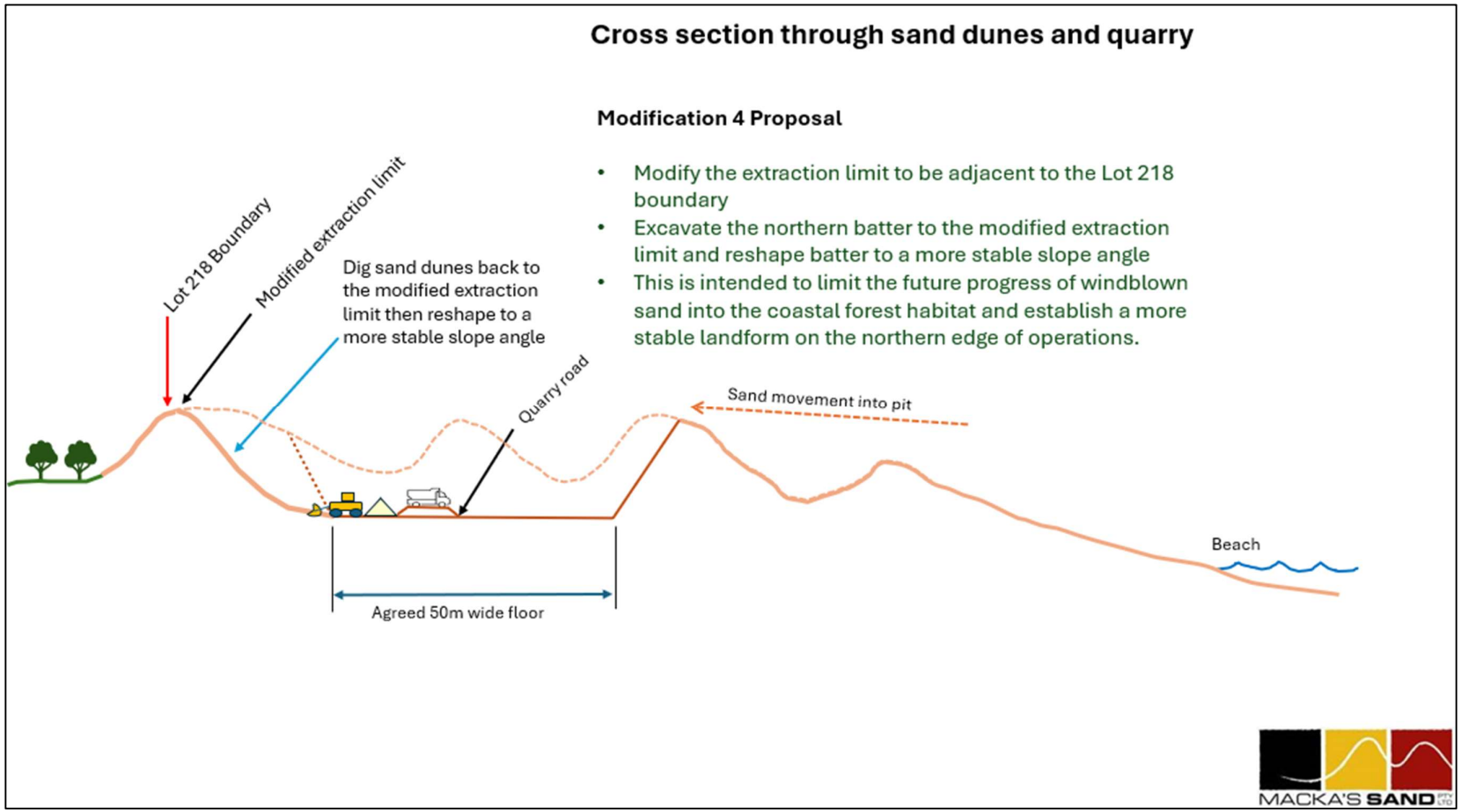

Figure 6 – Extraction boundary PA 08_0142 (Mod 2 Appendix 1) (light blue) and Lot 218 property boundary (red) (2009).

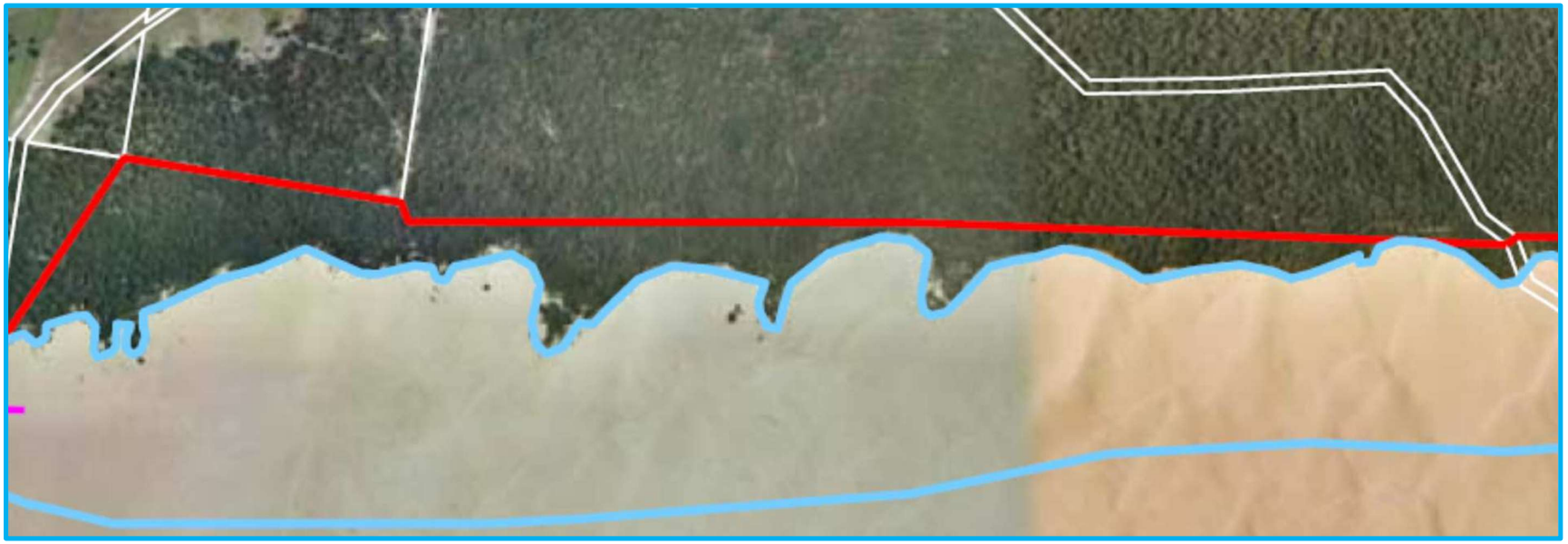

Figure 7 - Proposed modified extraction area

Details shown in Figure 5 are indicative and based on 2024 Google Earth image. The currently approved extraction boundary is shown in light blue, which represented the edge of vegetation in 2009. The broken black line represents the proposed modified extraction limit (subject to survey) and will be refined to reflect most current sand dune locations. The proposed boundary of the extraction area is shown for illustration purposes, and extends further to the east. The full extent of the extraction area is to be included in the Modification 4 final drawings.

2.3 Proposed Modification 4 summary

Table 1 shows a summary of key proposed components of Modification 4 to PA 08_0142.

Table 1 – summary of Modification 4 key aspects

<table>
<tr><th>Key Project Component</th><th>Approved Operations</th><th>Proposal</th><th>Change relative to Approved Operations</th></tr>
<tr><td>Life of operations</td><td>Granted 20 September 2009

Approved until 31 December 2029</td><td>31 December 2049</td><td>20 years ongoing operations.</td></tr>
<tr><td>Sand extraction annual tonnage</td><td>1,000,000 tonnes of a product in a calendar year from Lot 218

1,000,000 tonnes of a product in a calendar year from Lot 220</td><td>No change at Lot 218

500,000 tpa at Lot 220</td><td>No change Lot 218

500,000 tpa reduction Lot 220</td></tr>
<tr><td>Operating hours</td><td colspan="3">(Per Schedule 3, Condition 9, Table 4 in PA 08_0142)

<table>
<tr><th>Activity</th><th>Day</th><th>Time</th></tr>
<tr><td>Quarrying Operations</td><td>Any day</td><td>Any day</td></tr>
<tr><td rowspan="2">Quarrying Operations on lot 220 (other than transportation), when operating less than 250 metres from residence R27</td><td>Monday to Friday</td><td>7:00am to 6:00pm</td></tr>
<tr><td>Weekends and Public Holidays</td><td>None</td></tr>
<tr><td rowspan="3">Transportation</td><td rowspan="2">Monday to Friday</td><td>6:00am to 6:00pm (EST)

6:00am to 7:00pm (DST)</td></tr>
<tr><td>Saturday</td><td>7:00am to 4:00pm</td></tr>
<tr><td>Sundays and Public Holidays</td><td>None</td></tr>
</table>
</td><td>No change

No change

No change

Per Condition 9 (b)

Per Condition 9 (b)

Per Condition 9 (b)</td><td>No change

No change

No change

No change

No change

No change</td></tr>
<tr><td>Extraction area boundaries</td><td>Lot 218</td><td>Lot 218 – Modify the sand extraction limit to the north (within Lot 218) to enable reshaping</td><td>Revised northern extraction boundary</td></tr>
</table>

		of the final batter and to limit sand encroachment on vegetation.	
	Lot 220	Lot 220 ongoing sand extraction and rehabilitation of currently approved extraction area	No Change
Product Sand Transportation	1,000,000 tonnes of product per calendar year from Lot 218 - transportation by road	Lot 218 – ongoing road transportation of 1,000,000 tonnes	No change
	1,000,000 tonnes of product per calendar year from Lot 220 - transportation by road	Lot 220 – transportation of 500,000 tonnes product by road	Lot 220 reduced by 500,000 tpa
Rehabilitation	Lot 220 final landform included in PA 08_0142 Appendix 4.	No change regarding Lot 220.	No change regarding Lot 220.
	Final landform for Lot 218 to be provided in Modification 4, for inclusion in PA 08_0142 Appendix 4.	Revised final landform objectives for Lot 218 to be included in PA 08_0142 Appendix 4.	Improved final landform outcomes.

3.0 Relevant current conditions

The following condition applies to the timeframe for PA 08-0142 Schedule 2 Condition 5. Proposed changes are highlighted in blue.

Limits on Approval

5. Quarrying operations may take place on site until 31 December ~~2029~~ 2049.

Notes:

• Under this approval, the Proponent is required to rehabilitate the site to the satisfaction of the Secretary. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated to a satisfactory standard;

• The Department acknowledges that additional sand resources may exist on the site at the end of this period. Any extension of quarrying operations after this time will be subject to further approval.

The following conditions apply to the rehabilitation of both Lot 218 and Lot 220 extraction areas under PA 08-0142 Schedule 3 Conditions 24 to 28. Proposed changes are highlighted in blue.

REHABILITATION AND LANDSCAPE MANAGEMENT

Rehabilitation

24. The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual final landform ~~in the EA (as reproduced~~ in Appendix 4~~)~~, to the satisfaction of the Secretary.

Note: The Department acknowledges that rehabilitation activities on Lot 218 may be limited given the planned ongoing extraction on this lot. However, the long-term/final landform for Lot 218 must be addressed as part of the Landscape Management Plan (see below).

25. Landscape Management Plan

The Proponent shall prepare a Landscape Management Plan for the project to the satisfaction of the Secretary. This plan must:

(a) be prepared in consultation with OEH, DPI Water and Council, and be submitted to the Secretary within 6 months of the date of this approval, or prior to any vegetation clearing on Lot 220, whichever is sooner;

(b) include a:

- Rehabilitation Management Plan; and
- Long Term Management Strategy.

The Proponent shall implement the approved management plan as approved from time to time by the Secretary.

Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Long Term Management Strategy. However, a conceptual strategy must be included in the initial plan, along with a timetable for augmentation of the strategy with each subsequent review of the plan.

26. The Rehabilitation Management Plan must include:

(a) the objectives for the site rehabilitation and site landscaping;

(b) a description of the short, medium, and long term measures that would be implemented to rehabilitate and landscape the site;

(c) detailed performance and completion criteria for the site rehabilitation and site landscaping;

(d) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:

- progressively rehabilitating disturbed areas in Lot 220;
- progressive reshaping of the Lot 218 extraction area northern batter;
- landscaping the site to minimise visual impacts;
- protecting vegetation and soil outside the disturbance areas;
- preventing and/or minimising the accretion of sand dunes outside the project disturbance areas;
- undertaking pre-clearance surveys;
- salvaging and reusing material from the site for habitat enhancement;
- managing impacts on fauna;
- maintaining koala habitat linkages;
- conserving and reusing topsoil in rehabilitation of Lot 220;
- collecting and propagating seed for rehabilitation works;
- salvaging and reusing material from the site for habitat enhancement;
- controlling weeds and feral pests;
- controlling access; and
- bushfire management;

(e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;

(f) a description of the potential risks to successful rehabilitation, and a description of the contingency measures that would be implemented to mitigate these risks; and

(g) details of who would be responsible for monitoring, reviewing, and implementing the plan.

27. The Long Term Management Strategy must:

- define the objectives and criteria for quarry closure and post-extraction management;
- investigate and/or describe options for the future use of the site;
- describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
- describe how the performance of these measures would be monitored over time.

28. Rehabilitation Bond

Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond for the project with the Secretary to ensure that the site rehabilitation is implemented in accordance with the performance and completion criteria of the Landscape Management Plan. The sum of the bond shall be determined by:

(a) calculating the full cost of rehabilitating the site in each 3 year review period (see condition 7 of schedule 5); and

(b) employing a suitably qualified expert to verify the calculated costs, to the satisfaction of the Secretary.

Notes:

• *If the rehabilitation is completed to the satisfaction of the Secretary, the Secretary will release the bond.*

• *If the rehabilitation is not completed to the satisfaction of the Secretary, the Secretary will call in all or part of the bond, and arrange for the satisfactory completion of the relevant works.*

Aboriginal Cultural Heritage Management Plan

PA 08_0142 Schedule 3 Condition 29

Mackas Sand operates in accordance with the approved Aboriginal Cultural Heritage Management Plan established in accordance with PA 08_0142 Schedule 3 Condition 29. Mackas Sand has an established Aboriginal Heritage Working Group (AHWG) and potential cultural heritage items recovered during sand screening operations is undertaken by the AHWG. A revised ACHMP will be prepared to reflect the changed extraction area boundary with ongoing current cultural heritage management practices.

No changes are proposed to Condition 29.

4.0 Substantially the same development

Mackas Sand has sought advice from environmental law specialist at Johnson Winter Slattery, regarding the application of the "substantially the same development " test to the acceptance of the proposed Modification 4 as a modification under the NSW EP&A Act.

This advice supports the view that Mackas Sand operations are not typical in that they are extracting a naturally replenished sand resource from a minimized extraction footprint and that the original project Environmental Assessment (Umwelt, 2009), and the Director General's assessment report (DoP, 2009), and the conditions of approval under PA 08_0142 all contemplate ongoing sand extraction beyond the original term of PA 08_0142.

5.0 Discussion

With regard to the ongoing rehabilitation of Lot 220, no changes to the current relevant rehabilitation conditions in section 3.0 are proposed. The existing final landform will continue to apply, along with the existing objectives.

The final landform for Lot 218 will be provided as an additional drawing for PA 08_02142 Appendix 4, in a similar manner to the existing final landform drawing for Lot 220. Changes to condition wording is suggested in blue highlight in Section 3.0.

The conditions will continue to allow the final landform details to be included in the Landscape Management Plan.

It is not proposed to require topsoil or revegetation of the revised final landform at Lot 218 as no topsoil or vegetation is required to be removed from the existing sand dunes prior to sand extraction. A statement of rehabilitation objectives for Lot 218 will be included in the Modification 4 document covering:

- Establishing a reshaped final batter angle on northern side
- Reduce the likelihood of windblown sand moving towards the north, and
- Visual characteristics of the final batter to be consistent with the adjacent natural sand dune landform.

5.0 Preliminary impact identification and proposed assessment of impacts

The application will be supported by a Modification Report prepared in accordance with the requirements of the EP&A Act and Environmental Planning and Assessment Regulation 2021 (EP&A Regulation), including the SSD Guidelines.

The assessment of potential impacts associated with the proposed modification has commenced and has informed the design of the proposed Modification 4. The key potential environmental and social issues associated with the proposed Modification 4 and the proposed approach to addressing these issues in the Modification Report are summarised in Table 2. It is anticipated that noise, air quality, surface water, groundwater, biodiversity, and aboriginal cultural heritage impacts associated with the modified development will be consistent with existing approved operations and can be managed using existing approved environmental management practices.

A traffic impact assessment is proposed to assess intersection performance on Nelson Bay Road for the duration of the proposed increased operating timeframe.

A groundwater assessment will be prepared to update the groundwater model for the site, incorporating additional monitoring date collected to-date and to include consideration of climate change aspects.

No changes are proposed to existing impact criteria set under PA 08_0142 and the Environment Protection Licence (EPL).

Table 2 – preliminary identification and proposed assessment of potential impacts of Modification 4

Aspect	Preliminary impact identification	Proposed assessment approach
Biodiversity	Modification 4 does not require disturbance of any vegetation. No biodiversity impacts are anticipated.	No detailed assessment required.
Noise	Modification 4 will not change any noise emissions from sand extraction or processing activities. Ongoing product transport will not result in increased intensity or timing of transport. Approved on-site noise criteria will apply.	No detailed assessment required. Existing monitoring and management measures will apply.
Air Quality	Modification 4 will not change sand production methods or production quantities, therefore air quality impacts are not predicted to increase.	No detailed assessment required. Existing air quality criteria and management measures will apply.
Aboriginal cultural heritage	No exposed soil profiles potentially containing Aboriginal cultural heritage sites or artefacts will be disturbed by Modification 4. Existing Aboriginal Cultural heritage management practices enable identification and preservation of artefacts buried in the sand dune profile. Ongoing use of these exiting practices, including inspection by members of the Aboriginal Heritage Working Group (AHWG) will continue under PA 08_0142 and apply to the modified extraction area.	Consultation with Worimi LALC and members of the AHWG will be undertaken.
European heritage	No items of European heritage were identified in the proposed expanded extraction area in the original EIS (Umwelt, 2009). No impacts to European heritage are anticipated.	No detailed assessment required.
Surface water	As the Lot 218 site consists of transient sand dunes, surface water infiltration occurs readily, and runoff is unlikely to occur.	No detailed assessment required. Existing management measures will continue to apply.

	The existing Soil Water Management Plan includes soil and erosion management methods that will continue to apply to the site.	
Groundwater	The proposed modification will not result in any changes to groundwater impacts. The depth of operations is controlled under PA 08_0142 to maintain the floor of the extraction area at least 0.7m above the maximum predicted groundwater level established by groundwater modelling. These management measures will continue to be applied to the modified extraction area. Potential groundwater impacts from the exposure of underlying acid sulfate soils (ASS) was raised as a risk in the original EIS (Umwelt 2009). Investigations to-date have shown no ASS present beneath 60% of excavated area.	Under conditions of PA 08_0142 Mackas Sand is required to prepare regular update of the groundwater model to consider recent monitoring data. An update to the groundwater model will be prepared for Modification 4 to incorporate all available site monitoring data and to consider climate change aspects for the proposed continued operations. Existing monitoring and management measures will continue to apply. Further investigations will be conducted to check for the presence of ASS beneath the remaining exposed excavation area.
Visual	The changes proposed to the Lot 218 extraction area northern batter will result in improved visual characteristics, more consistent with surrounding sand dunes.	A discussion of improved visual outcomes including cross sections will be included in the Modification Report.
Traffic	Road transport of product will continue at the existing rates and during times approved under PA 08_0142.	The continued operations extended timeframe will require detailed traffic impact assessment to ensure aspects such as the performance of key intersections are appropriate for future predicted traffic levels.
Rehabilitation	The modified extraction batter at Lot 218 will alter the final landform.	A conceptual final landform for Lot 218 extraction area will be provided in the Modification Report.
Social	Continued operations for a further 25 years will provide social benefits including ongoing direct employment, ongoing economic benefits through suppliers and contractors, ongoing supply of quality sand products for construction of social infrastructure, and ongoing	Social benefits of continued operations will be articulated in the Modification Report. Consultation with Worimi LALC and neighboring land holders will be undertaken to identify ongoing social impacts and potential mitigation measures.

	royalty payments to Worimi LALC.	

6.0 Statutory Context

6.1 State Legislation

The EP&A Act is the primary legislation governing environmental planning and assessment for NSW. It is proposed to modify PA 08_0142 under section 4.55(2) of the EP&A Act. Due to the minimal changes represented by the proposed Modification 4, the modified development will be 'substantially the same development' as the approved development and involves minimal changes to environmental impacts.

The proposed approval pathway is considered appropriate given:

- no changes are proposed with respect to the key elements of the approved operations, including the mining methods, annual production rate, hours of operation, workforce or transport methods (refer to Table 2);
- no material changes are proposed with respect to equipment use, intensity or location of works, relative to approved operations;
- there is minimal additional extraction area associated with the proposed modification, however there are no areas of additional vegetation impacts or soil disturbance;
- the final landform will be modified to reduce the ongoing loss of vegetation due to the wind-blown migration of sand off the site into the adjoining National Park;
- the revised extraction batter at Lot 218 will be more visually consistent with surrounding terrain;
- noise, air quality, surface water and groundwater impacts will be consistent with those of the approved operation and within existing criteria;
- traffic impacts will be considered through a traffic impact assessment to ensure any traffic management will be appropriate over the proposed increased life of the project;
- the proposed development represents minimal additional environmental impacts, and
- the development is considered substantially the same development (legal advice received).

6.2 Commonwealth Legislation

The proposed modification is not proposed to be referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as the

proposed modification is consistent with the operations approved under EPBC Act approval 2011/6214. The proposed modification is not considered likely to have any additional impact on Matters of National Environmental Significance (MNES) due to there being no vegetation or habitat impacts as a result of the modification, no impacts to significant Aboriginal cultural resources, and no impacts to groundwater.

Consistent with the conditions of approval 2018/8300, DCCEEW will be notified of the proposed modification to PA 08_0142.

7.0 Timing

The Modification Report is expected to be submitted in Q4 2026, subject to acceptance of the proposed approval pathway and assessment methodology.

8. Conclusion

Makas Sand requests DPHI to:

- confirm that section 4.55(2) is the appropriate approval pathway for the proposed modification, and
- advise if any further assessment requirements are recommended in addition to the proposed environmental and social assessment approach outlined in Section 5.

We trust this information meets with your current requirements. Please do not hesitate to contact the undersigned should you require clarification or further information.

Regards,

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