Work Plan Description

for

Extractive Industry Work Authority WA007541

RRAM Designation:- PLN-001536

Lang Lang Sand Resources Pty Ltd

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Project No. A25_005
February 2023

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Revision History

Document Date	Version	Description	Issued By	Reviewed By	Approved By
Jun 2021	V1	1st preliminary draft of Work Plan	BCA Consulting	K Sargent	
Jan 2022	V2	2nd preliminary draft of Work Plan	BCA Consulting	K Sargent	
Mar 2022	V3	1st draft submitted to ERR	BCA Consulting	K Sargent	K Sargent
Aug 2022	V4	2nd draft submitted to ERR	BCA Consulting	K Sargent	K Sargent
Feb 2023	V5	3rd draft submitted to ERR	BCA Consulting	K Sargent	K Sargent

1. PLAN DETAILS

1.1. INFORMATION

Plan ID

PLN-001536

Tenement

WA007541

Plan Type

Work Plan (WA)

Author

Basil Natoli / Colin Thornton / Michael Stevenson

Project name:

Lang Lang Sand

1.2. PLAN DESCRIPTION:

This Work Plan describes the development and operation of a green fields sand quarry located at 5575 South Gippsland Highway, Lang Lang for Lang Lang Sand Resources Pty Ltd (LLSR). This Work Plan has been prepared in accordance with the requirements of the *Mineral Resources Development Act 1990* and the *Mineral Resources (Sustainable Development) (Extractive Industries) Regulations 2019* and incorporates the risk based approach described by the Earth Resources Regulation, Department of Jobs, Precincts and Regions, Victoria (the Department), guidelines *Preparation of Work Plans and Work Plan Variations*, December 2020.

Lang Lang Sand Resources Pty Ltd propose to develop a sand extraction and processing operation on private land. The proposal has been assigned Work Authority number WA007541 and Work Plan number PLN-001536, and is located approximately 5km south-east of Lang Lang township, 7km west of Nyora and 80km south-east of Melbourne, see Figure 1 Regional Plan. There are several operating sand pits adjacent and close to this site.

Lang Lang Sand Resources Pty Ltd is a subsidiary of Aurora Construction Materials (ACM) who operate several sites in the Melbourne Region producing aggregates, crushed rocks and concrete for use in construction. This Lang Lang sand resource will further compliment their existing business.

The quarrying will involve, through a series of stages, dry extraction down to approximately 4m depth and then extraction below groundwater down to a maximum depth of 30m (refer to Figure 3 Site Layout Plan). Extraction below the groundwater level will be undertaken by dredge, grab crane or dragline. Terminal batters will be developed to profiles of 1V:3H (approx. 18 deg) above groundwater level and 1V:2H (approx. 26 deg) below groundwater level. The upper batters will be rehabilitated with a beaching bench established at the standing groundwater level. Ultimately, the rehabilitated landform will be a central water body with peripheral land suitable for agricultural activities (e.g. grazing).

A shallow waterway diversion will be required to move the existing minor drainage line running centrally through the site to a constructed waterway along the northern boundary. This will be constructed and rehabilitated early in the quarry development and will remain in that location.

Sand will be either trucked or pumped to a sand washing and processing plant which will be established at the western end of the quarry. The slimes produced will be dewatered and consolidated and then blended

with overburden, interburden and plant oversize / waste materials for onsite use or in pit disposal. Return water from the processing plant, along with runoff from processing and stockpiling areas via a sediment / interceptor trap, will be managed with an in pit water storage walled off from the remainder of the extraction area. The output from WA007541 is expected to range from 250,000 to 350,000 tonnes per year of predominantly fine to medium washed sand products for use in concrete and construction. Based on this anticipated production output, the site could be in operation for 45 years, however it is noted that production may increase as demand requires.

A Virtual Site Consultative Meeting was conducted on 20th October 2020, and attended by representatives from Earth Resources Regulation (ERR) within the Department of Jobs, Precincts and Regions. (DJPR), Cardinia Shire Council (CSC), DELWP, EPA, VicRoads, Melbourne Water (MW), Southern Rural Water (SRW) and AusNet Services.

The purpose of the consultative meeting was to outline the development proposal and introduce the proponent to the referral agencies. The site meeting gave the referral agencies the opportunity to raise any issues or concerns that needed to be addressed in the proposal Work Plan. The issues identified at the meeting, as well as feedback received from these agencies following the meeting have been addressed and incorporated in this Work Plan application.

1.2.1. GENERAL GEOLOGY

The following description is taken from the GHD geotechnical assessment undertaken for this proposal.

The proposed quarry site lies approximately 7 km inland from the eastern shores of Western Port Bay. The area is situated within a tectonic depression, known as the Western Port Sunklands. The sunklands are bounded to the west of Western Port Bay by the Tyabb Fault, and to the east by the Bass and Heath Hill Faults (GeoVic, 2014; Geoscience Australia, 2020), forming a horst (Mornington Peninsula bedrock ridge) and graben (Port Phillip Sunkland, Western Port Sunkland) sequence (McAndrew & Marsden, 1968).

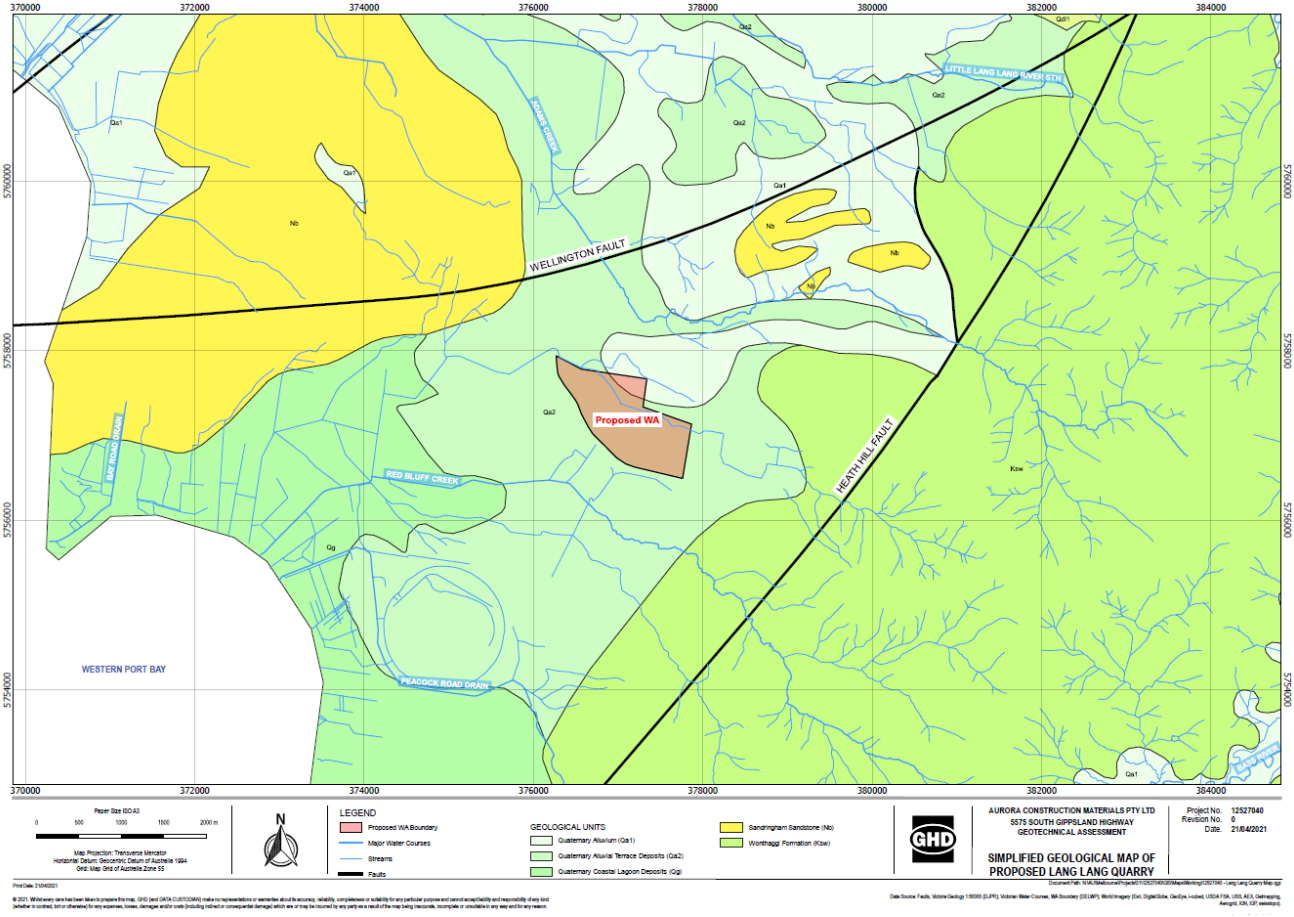
The proposed quarry site is situated on a graben (Western Port Sunklands), downthrown relative to the Mornington Peninsula bedrock to the west and the South Gippsland Highlands to the east. The extents of the sunklands are defined by the Tyabb Fault to the west, and the Heath Hill Fault to the east (GeoVic, 2014). Within the sunklands, the quarry site sits in a slightly elevated zone known as the Lang Lang Lowlands, shown in the geological map below, delineated by the Lang Lang Fault to the north-west and the Heath Hill Fault to the south-east.

The area in the vicinity of the proposed quarry site consists of 3 main stratigraphic units, as follows (from oldest to youngest):

- Wonthaggi Formation (Ksw)
- Sandringham Sandstone, formerly known as Brighton Group (Nb)
- Unconsolidated Quaternary Deposits (Qa2, Qa1 and Qg)

A geological map of the proposed quarry site and the surrounding region is presented below.

Additionally, there is no potential acid sulphate soils shown within proximity of the site in the available geological mapping or the state government acid sulphate soil mapping (Coastal Acid Sulfate Soil Hazard, Warragul sheet, T8021 (2002) or Coastal Acid Sulfate Soils Distribution – Map 3, Central Coast of Victoria). The National Acid Sulfate Soil Atlas indicates a low probability of occurrence for this site.



Site Geology

The geological evaluation for the site has determined the resource to be similar to the geology presented in the nearby pits to the north and east. The sand is predominantly fine to medium with some coarser layers at depth with clay/silt/peat layers and lenses more common in the western portion of the site.

From the geological model developed, the pit strata are expected to consist of:

- 2-300 mm of soil,
- 2-7m of overburden, averaging at 4m,
- Up to 25m of fine-medium sands with interlayered clay/silt/peat lenses.

Coarser sand layers occur mostly below 30m depth. The viability of extracting these will be reviewed later and would be the subject of a work plan variation.

Geological Investigation

In 2013, 26 aircored holes were drilled to depths ranging from 18 to 54m. Drill hole samples were logged and photographed, with potential sand resource intervals sub-sampled and tested for their Particle Size Distribution. The test results and interpretation from the drilling and testing program have been used to develop a geological model for the site which has been used for the proposed pit design and preliminary geotechnical analysis. The sand resource estimates contained within this proposal are presented below.

Estimated Resource

The following estimates have been obtained from the proposed pit design, the resource mapping, local site experience, and extrapolation.

The Fine-Medium Sand Resource contains interlayered clay/silt lenses (interburden) as well as layers of peat/organic material.

The total volume of the excavation is estimated at 14.3 million cubic metres.

- **Soil:- 165,000 cubic metres**: the top 2-300mm of material is treated as soil and will be stockpiled separately for use in rehabilitation (250mm has been used for estimate)
- **Overburden :- 2,600,000 cubic metres**: the next 3-7m of material is clayey granular material, easily diggable and has been classified as overburden. This layer varies considerably across the site from virtually zero in some areas to up to 7m in other areas. An average depth of 4m has been assumed across the extraction areas.
- **Fine-Medium sand:- 13,500,000 tonnes**: the upper levels of the resource is a fine-medium sand, with variable organic content/coatings.
- **Interburden material:- 2,500,000 cubic metres**: the resource is characterised by clayey / organic lenses and bands that occur throughout the deposit in varying thickness from 2-8m, averaging 3m of the total profile. This material is excluded from resource estimates.

Current and past land uses

The site has had a long history of agricultural use and is currently irrigated cleared pasture used for dairy farming. The farming use will continue concurrently with the sand extraction and processing operations.

The land titles comprising WA007541 are currently held by Geoffrey Pate. Under a contract of sale titles will be transferred to ACM on settlement in 2023.

1.2.2. QUARRY OPERATIONS

Size of extraction area

The total proposed extraction area is 65ha.

The total disturbed area, including site access road, access tracks around the crest of the extraction area, screening bunds, water dams and overburden storage is 84.3ha. In addition, 13.5ha will be disturbed to establish the northern waterway diversion early in the operation, which will be immediately rehabilitated to Melbourne Water requirements and then remain as a permanent waterway in the rehabilitated landform. The extent of the extraction area and disturbed area is shown on Figure 3 Site Layout Plan.

The maximum disturbance area at any time is estimated to be 58ha, including the 13.5ha to establish the waterway diversion in the earlier stages of development.

Method and scale of operation.

The expected rate of extraction will be approximately 300,000tpa of sand products, but will always be subject to market demands. Staffing levels at the site will vary according to the level of activity and will typically involve a base load of 5-7 people, with up to 10 people if stripping, washing, dry extraction production, progressive rehabilitation, site maintenance and machine maintenance all happen concurrently. Staffing levels will be a combination of permanent and part time employees and contractors.

There will be no blasting.

The site will use industry standard earthmoving equipment such as (but not limited to) excavators, dozers, scrapers, wheel loaders and off-road haul trucks for extraction above groundwater and floating dredges, grab cranes or drag lines for extraction below groundwater. The site will be operated as a dry open pit down to approximately 4m depth and then extract below groundwater to approx. 25-30m depth. Extracted materials will be moved within the site by trucks, scrapers, conveyors and slurry pipelines.

Raw feed extracted above groundwater will be delivered to the processing plant area for wet processing or dry screening. The sand processing plants will be located centrally within the Work Authority area, see Figure 3 Site Layout Plan.

Soil will be stripped and either hauled directly to prepared rehabilitation areas or stockpiled for later use in rehabilitation. Soil in excess of rehabilitation requirements may be sold.

Overburden will be stripped and hauled directly to areas available for progressive rehabilitation, i.e. partially backfilling completed extraction areas. Overburden and interburden will also have consolidated slimes and process oversize / waste blended with it for use in partial backfilling of excavated areas. If the areas are not available these materials will be temporarily stockpiled for later use in rehabilitation.

Sand processing methods and facilities.

The site will employ both dry and wet processing.

Dry processing involves industry standard dry screening and sizing of the raw feed. Dry screening will commence immediately and will continue in association with dry extraction for the life of the resource. Dry processing will typically occur within the Processing and Stockpiling area outlined on Figure 3 but may also occur within the excavation areas when appropriate. Dry processing typically produces mortar sands, packing sands and select fills. Soil in excess of rehabilitation requirements may also be screened for sale. Multiple mobile processing units may be employed across the site. However, the dry screened products are likely to be only a minor output from this site with most of the sand being wet processed.

Wet processing involves introducing water and attritioning the raw feed to separate clay/silt fines to produce a clean washed sand. Dry extracted sand will be fed into the plant and wet via a feed bin at the processing plant. Sand extracted with a grab crane or drag line will be placed in a dewatering and stockpiling area for trucking and/or conveying to the processing plant. Sand extracted using a floating dredge will be either pumped directly to the processing plant or pumped to a dewatering and stockpiling area for trucking and/or conveying to the processing plant.

Initial extraction will commence directly to the east of the Processing and Stockpiling area (i.e Stage 1A1) to create a void for storing process water and collecting drainage from the processing area. The walls of this in pit water storage will be formed of insitu material, retained to separate the storage from adjacent extraction stages. Overburden from this initial extraction area will be used to form a raised base for the Processing and Stockpiling area, filled and compacted, to maintain drainage away the plant and stockpiles.

The wet processing plant (Wash Plant) will comprise feed bins, attritioners, pumps, pipelines, classifiers, cyclones, conveyors, blending and stockpiling equipment as well as thickeners, sand dewatering equipment and slimes dewatering equipment. Wash Plant processing equipment will be standard industry items and will be updated/replaced as required to maintain plant efficiency, product recovery and slimes treatment (thickening, dewatering and drying).

Wash Plant underflow containing slimes will be directed to a thickener, located adjacent to the Wash Plant. Slimes passing through the thickener will be further treated with appropriate flocculating agents, dewatering and consolidation equipment. Such equipment typically includes slimes buffer tank(s), dewatering equipment (belt press/ plate press/ centrifuges) transportation equipment (conveyors/pipelines/trucks) to produce a dewatered and consolidated waste product.

There will be limited wet slimes storage required during the initial commissioning and evaluation trials to design the most appropriate slimes processing equipment, which will be managed through the in pit water storage (see below).

The site will employ (self-powered) mobile wash plant and slimes treatment units during the final stage of extraction, when the site of the Processing and Stockpiling Area is to be removed. The mobile plant will be located to the north-west side of the pit (refer to Figure 3), on a prepared hardstand for processing and stockpiling.

Waste Disposal Methods and Facilities.

Waste products produced on site include overburden, interburden, plant oversize rejects, unsaleable material and slimes. Overburden, interburden and plant oversize / rejects are natural materials containing

no added chemicals or other harmful waste products. These materials will be used initially in construction of screening bunds, plant and stockpile areas then for partially backfilling completed extraction areas of the quarry, either directly or following temporary stockpiling inside the extraction area. Overburden / interburden classification is undertaken by the Quarry Manager and is based on site experience, market requirements and plant performance and may be supported by physical testing as required. Overburden stockpiles will be located within the disturbance area as indicated on Figure 3 Site Layout Plan.

The use of slimes dewatering and consolidation equipment immediately produces slimes of a 'spadeable' consistency (typically 50-55% solids w/w). This recovers a significant proportion of the process water for reuse and eliminates most of the need for wet slimes storage cells. The consolidated slimes produced on the site will be blended with overburden / interburden and plant oversize / waste for partial backfilling of completed extraction areas, and some may be used, where suitable, in rehabilitation of upper terminal extraction batters and/or rehabilitation of the surfaces of the constructed screening bund. The blended material with consolidated slimes deposited at the bottom of the water body will be distributed so that it remains at least 3m below the seasonal fluctuations (0.25m above and below) in the final, stabilised water's surface. The capacity below RL 15.5m, down to the maximum extraction depth of 30m, below ground level, is approximately 9.0 million cubic metres, which is more than necessary to contain the volume of blended materials to be backfilled into the pit, including allowance for wetting of those materials.

The overburden / interburden, with or without consolidated slimes, may also be blended with other low grade products for sale and use as select fill, and the consolidated slimes themselves could also be sold to be blended with other materials for various select industrial uses (e.g. brick making).

The site will generate a small amount of domestic rubbish and general waste. Domestic waste includes toilet waste, office waste and general food/packaging waste from the office and amenities. Industrial waste includes redundant / discarded plant and equipment, discarded conveyor belting, discarded screen decks, discarded tyres, discarded grease cartridges, discarded oil drums and oily rags.

All domestic rubbish and general waste materials will be removed by contractors authorised to receive the waste.

Stockpiling Facilities

Soil: Stockpiling of soil will take place when the sequencing of stripping, extraction and progressive rehabilitation does not allow direct placement. Initially some soil will be used to establish vegetation on the screening bund. Soil stockpiles will then be located within or adjacent to the extraction area and close to planned rehabilitation areas. A Temporary Materials Storage and Handling Area, which will be relocated as the quarry develops, is indicated on Figure 3 Site Layout Plan for this purpose.

Soil stockpiles will be limited in height to not greater than 2m and will be located around the site at areas close to extraction crests where they will be used in rehabilitation, typically close to the terminal crest and inside the disturbance area. Soil stockpiles will be contoured and stabilised to manage erosion.

Overburden / Interburden: Stockpiling of overburden / interburden will take place when the sequencing of stripping, extraction and progressive rehabilitation does not allow direct placement in bund / hardstand construction or rehabilitation areas. Stockpiling will also occur for the purpose of consolidated slimes blending. The overburden / interburden stockpiles will be located within a Temporary Materials Storage and Handling Area, which is indicated schematically on Figure 3 Site Layout Plan.

Overburden stockpiles will be limited in height to a maximum 10m and will be within the excavation area, and will be located to not impact the overall risk profile of the site. Overburden / interburden stockpiles will have 1V:2H side slopes with a contour drain at the base of the dump to direct any runoff into the site drainage control system. Overburden stockpiles will be contoured and vegetated or otherwise stabilised to manage erosion.

Note that the majority of overburden from initial extraction stages will be used to construct the 5m high screening bund along the South Gippsland Highway (refer to Figure 3, Site Layout Plan for profile), with some overburden temporarily stockpiled on the natural surface until it is required for backfilling.

Consolidated Slimes: The dewatered and consolidated slimes out of the plant will be of a 'spadeable' consistency (typically 50-55% solids w/w) allowing stockpiling without the need for liquid or slurry containment. The consolidated slimes will only need to be temporarily stockpiled for blending with overburden, interburden and plant oversize / waste before disposal back to the pit or use in site rehabilitation. The stockpiling of dewatered and consolidated slimes will occur within either the Processing and Stockpiling area or a Temporary Materials Storage and Handling area (refer to Figure 3), which is relocated as the quarry develops. While in these stockpile areas, further water can drain from the material and such water will pass through a sediment / interceptor trap prior to returning to the in-pit water storage.

The length of time required for stockpiling will be highly variable depending on the availability of space within the pit for backfilling, the availability of overburden, interburden and plant oversize / waste, which in turn are dependent on the staging of quarry development and the variable level of oversize / waste produced from the resource. Therefore, the need for stockpiling of dewatered and consolidated slimes could vary (once suitable space is available within the pit for the backfill) from none (immediate use) up to a maximum of approximately 12 months, as overburden stripping usually occurs in the summer months.

The blending process involves mixing the materials, typically with a front-end loader and/or bulldozer, directly from the stockpiles or as it is delivered directly from the plant (via conveyor). The blended mix of overburden, interburden, plant oversize / waste and consolidated slimes will be transported back to the pit via a conveyor for deposition on the pit floor. This partial backfilling will be distributed by a continually relocated conveyor, either a floating conveyor or a conveyor with an extended boom, so that the material settles to the bottom of the water body and remains at least 3m below seasonal fluctuations in the final water's surface, avoiding any tipping of material down the pit terminal batters.

Product: Product stockpiles will be mostly located within the Processing and Stockpiling area outlined on Figure 3. Some products may also be stockpiled within dry parts of the extraction areas.

Washed sand product stockpiles will be created with dewatering cyclones, stacking conveyors, chutes, or wheel loaders. Product stockpile may be as high as 10m under the plant. Product stockpiles created by wheel loaders will typically be 5m high.

Other Quarry Infrastructure

Other quarry infrastructure is outlined on Figure 3 and includes:-

- Access road which will be sealed to the weighbridge and dispatch office with a wheel wash for trucks leaving the site;
- Managers office and amenities with visitor and worker parking located near the weighbridge;
- Shallow waterway diversion to move the existing drainage line running centrally through the site to a constructed waterway along its northern boundary. This diversion was designed by Spiire Australia Pty Ltd and reviewed by Melbourne Water (see attached flood assessment and waterway diversion design);
- Workshop, stores and maintenance area with triple interceptor trap;
- Site laboratory;
- Fuel storage;
- Mains power and backup generator. Existing power lines to the site will be relocated and upgraded;
- Internal haulage roads, drains, culverts and traffic control structures;
- Slurry and water pipelines;
- Overland conveyors.

Additional activities that typically occur on the site include:

- accepting, sizing, sorting, mixing and blending of processed materials;
- stockpiling,
- materials testing,
- loading for sale and dispatching loaded materials off site.
- maintenance of access roads, haul roads and site tracks;
- maintenance, servicing and upgrading of mobile equipment, mobile plant and the sand processing plant.
- Relocation / realignment of slurry and water pipelines and conveyors

Imported Material: Any material imported as part of the Work Authority's operations will be handled in accordance with the Imported Materials Management Plan. Imported materials will typically be other processed or extracted raw sands for blending to achieve product specifications, other construction materials required for hardstand areas, roadways and ongoing civil works and potentially some 'clean fill' or mulch, if necessary, to supplement site rehabilitation. Imported sand will be stockpiled, if necessary, within the approved disturbance areas of the site but will be quickly utilised in ongoing production of quarry products. The potential impacts related to imported material are considered in the risk assessment included in the Risk Management Plans.

1.2.3. EXTRACTION AREA

Current Open Area

This work plan is for a green fields site and there is no current open extraction area.

Additional area to be opened

The total area to be opened for extraction over the operating life of the site is 65ha. The shallow waterway diversion outlined on Figure 3 will cover an additional area of approximately 13.5ha, consisting of the shallow channel itself (in the order of 1m to 3.5m deep, at its deepest point) and associated marginal surface disturbance (as indicated on Figure 3, Site Layout Plan). This will require separate approval from Melbourne Water and will be revegetated as soon as practicable after completion of construction in accordance with that approval.

Maximum area to be opened at any time

The maximum open area at any time, including the extraction area, plant area, hardstand areas and stockpile area but excluding any progressively rehabilitated areas will be approximately 58ha. This maximum will occur in the earlier stages of development while the northern waterway diversion is being established, involving 13.5ha of disturbance, and also the 5m high screening bund is being established, which involves about 6.2ha of disturbance.

Volume of extraction

The total volume of the extraction is approximately 14.3 million cubic metres insitu – not including the area of shallow excavation for the northern waterway diversion (approx. 120,000 cubic metres).

1.2.4. EXTRACTION METHOD AND PROCESSING

Storage of Clean Water.

Potable Water: There is no mains water supply on site. The weighbridge and office/amenities building(s) will be supplied with water from above ground rainwater tanks and bottled drinking water.

Clean process water will be stored in the existing above-ground ('turkey nest') dam, approx. 65 megalitres, to the west of the processing and stockpile area. This dam continues to be operated on the farm under a Registration Licence (BEE077726) for irrigation purposes with an allowance to harvest up to 90 megalitres of surface water per year. Irrigation of the paddocks will continue on the property for farming purposes while the quarry expands, so the licence will be amended as necessary to allow for industrial/commercial use as

well as irrigation. Process water will be largely sourced from the existing 261.9 Megalitre groundwater allocation (see attached use licences), both from existing licensed bores and from the pit, under the modified groundwater licence (WRK125327), i.e. from the in pit water storage within the initial extraction area shown on Figure 3, Site Layout Plan. The total capacity of these water storages is expected to be in the order of 600 megalitres.

Storage of Sediment-laden Water.

In the context of this site sediment-laden water is defined as that containing natural solids from the sand washing process and includes plant underflow, water draining from washed sand stockpiles and from dewatered and consolidated slimes stockpiles, surface water collecting within the disturbed area that is directed to sediment traps, and water collecting in sumps around the dry excavation areas.

In accordance with the adaptive Surface Water Management Plan for this site (see below), sediment-laden water (plant underflow, surface water flowing over disturbed ground, water returned from slimes, etc) will be directed via sediment / interceptor traps into the in-pit storage within the initial extraction area, next to the processing plant and stockpile area, where it is allowed to settle before being used in dust suppression, sand washing and irrigation.

Storage of processed slimes

As above, the dewatered and consolidated slimes out of the processing plant will be of a 'spadeable' consistency (typically 50-55% solids w/w) and a significant proportion of the process water will be recovered for reuse, eliminating most of the need for wet slimes storage cells. There will only need to be temporary stockpiling for blending with overburden, interburden and plant oversize / waste before disposal back to the pit or use in site rehabilitation.

As above, there will be a limited amount of wet slimes storage in the in pit water storage, to be established in the initial extraction area, to allow for initial production and evaluation trials to design the most appropriate slimes processing equipment. This storage would also be used as a contingency for any break downs in the slimes dewatering equipment. If the slimes dewatering systems are not working, slimes will still be processed though the thickener before being directed to the in pit plant water storage. Any wet slimes placed in the in pit water storage will settle and remain at the base of the storage well below the surface of the water with the water above it continuing to be utilised to supply the Wash Plant. Slimes collected in this storage can be pumped back later to the plant for consolidation if necessary, which will occur if greater than 3m depth of wet slimes were to accumulate in the bottom of the in pit water storage.

The walls of insitu material around the in pit water storage will be largely removed during the final phase of the quarry extraction. Any limited volume of slimes at its base will mix with the much greater volume of surrounding backfill material (i.e. overburden, etc. with blended consolidated slimes), which will have been deposited at the bottom of the water body throughout the operation. The surrounding backfill material, with a total backfill depth in the order of 20-25m, will be moved into the space of the in pit water storage during this final removal of the walls.

Depth of extraction:

The maximum depth of the excavation proposed in this work plan will be 30m, with the elevation of the maximum terminal depth being at approximately RL -10m at the western end of the pit.

Proposed stages of extraction

The progressive development of the extraction area is provided schematically in Site Layout Plan Figure 3.

The basic staging methodology is to start the excavation in the initial extraction area outlined on Figure 3, Site Layout Plan, and use the overburden from this area to commence constructing the screening bund along the South Gippsland Highway frontage. This construction will focus on shielding the nearest residences on the opposite side of the highway and the residence on the adjoining property to the east of the site.

Spoil, other than the topsoil, from the construction of the waterway diversion along the northern boundary of the site (approx. 83,000 m^3) may also be used in constructing the screening bund, the base for the processing plant and stockpile area and internal haul roads.

The staging has been designed to allow early progressive rehabilitation of the northern and eastern terminal batters to minimise the visual impact of the operations from the south and west.

The above-ground ('turkey nest') dam will no longer be required for process water once the in pit water storage is established, but will continue to be used for farm irrigation, until ultimately it is removed during Stage 2 or 3. Process water will then be stored only in the in pit water storage (i.e. the initial extraction area). The final Stage 4B extraction will necessitate the relocation of the processing and stockpiling area to an area on the north-west side of the pit. This will be established on a hardstand initially constructed for the Temporary Materials Storage and Handling Area during Stage 3, as shown on Figure 3 Site Layout Plan. Mobile wash and slimes treatment plant will be utilised for this final stage. Once all extraction stages are complete the walls of insitu material retained around the initial extraction area will be largely removed for processing, and the process water will be sourced from elsewhere in the pit during this final phase of extraction.

The balance of land not used for quarrying and ancillary operations, and any rehabilitated areas of the site consistent with requirements, will continue to be managed for agricultural purposes (e.g. grazing) consistent with the Farming Zone of the land.

Land management priorities for the staging include:

- Surface drainage and erosion control
- Maintaining appropriate / effective visual screens through planting vegetation
- Weed control and management;
- Pest animal control and management;
- Fire management;
- Farm access and fence maintenance.

All proclaimed noxious weeds on the site will be controlled in accordance with the Catchment & Land Protection Act (1994) and the recommended herbicide application. The primary objective is to ensure that noxious weeds do not contaminate adjoining land. Noxious Weed control will be carried out in accordance with the herbicide manufacturer's recommendations including the most appropriate time to ensure effective control.

Only those areas approved in the Work Plan will be opened for quarrying and ancillary operations.

The exact timing of the extraction staging will be dependent upon market and resource quality. The staging outlined on Figure 3 is indicative of the progression of the site development but will be subject to operational and resource quality requirements.

A Future Stage 5 is outlined on the Site Layout Plan but this will be subject to further approvals based on monitoring the impact on groundwater levels as the pit develops through Stage 4.

Terminal faces above groundwater will be rehabilitated as soon as practicable after they are established. The end result will be a large waterbody fringed with a 1V:5H beaching zone and a 1V:3H embankment back to natural surface levels. The beaching zone will be planted with appropriate aquatic species to control erosion and provide habitat for native fauna. The embankments will be planted with pasture grasses and scattered trees and shrubs.

The key points for sand extraction and rehabilitation are summarised below.

- Soil removed and used in progressive rehabilitation or stored in temporary stockpiles within the disturbance area. Soil in excess of rehabilitation requirements may be processed for sale;

- Overburden removed and placed in storage areas (initially the visual screening mounds along the South Gippsland Highway and part of the eastern site boundary) then used directly in partial backfilling of the completed extraction areas.
- Construction of the waterway diversion to move the existing drainage line running centrally through the site to a constructed waterway along its northern boundary.
- Dry screened products may be processed and stored in stockpiles within the extraction area or adjacent to the wet processing area.
- Raw sand for wet processing will be extracted above groundwater using conventional earthmoving equipment including excavators and scrapers. Below groundwater raw sand will be extracted using dredges, grab cranes, drag lines or similar equipment.
- Raw sand will be transported to the wash plant using dump trucks, conveyors or slurry pumps and pipelines;
- Consolidated slimes generated by the washing process will be stockpiled and incorporated with the overburden / interburden and plant oversize / waste for use in backfilling around the site.
- Water will be continually drained from any consolidated slimes stockpile areas using gravity, drains, sumps and pumps. Water removed in this manner will be recycled back to the sand washing process.
- Cut of drains, mounds and other surface water management control features will be continually updated and modified to ensure the objectives of the site's adaptive Surface Water Management Plan are met.

The extraction progress and progressive rehabilitation will be reviewed on an annual basis to ensure the visual impact of the operation is minimised and the objectives outlined in the Rehabilitation Plan are achieved.

Design of extraction pit including number of benches and slope configuration

Number of Faces

The maximum number of faces will be three. Typically, this will involve a soil and overburden stripping level averaging approx. 4m depth, then a dry sand extraction face from 2 to 5m depth and wet extraction below groundwater to approx. 20m deeper. The proposed maximum depth of the extraction is up to 30m. Extraction below this depth is not proposed at this stage but approvals may be sought once the feasibility of deeper extraction has been assessed.

Terminal Faces

Terminal batters will be developed to profiles of 1V:3H (approx. 18 deg) above groundwater level and 1V:2H (approx. 26 deg) below groundwater level. The upper batters will be rehabilitated with a 1V:5H beaching bench established at the standing groundwater level. The terminal face profiles have been verified by GHD to be safe and stable, see attached Geotechnical Assessment. However, it is acknowledged that, as a greenfield site, there is some uncertainty regarding material strength parameters and the variability of the materials within the resource. Accordingly, the Ground Control Management Plan includes a commitment to undertake an initial stability assessment review to validate assumed parameters and the slope design, once a suitable depth of material is exposed to allow such a stability assessment to address these uncertainties.

Terminal face profiles are depicted visually on the insets on Figure 4 Rehabilitation Landform.

Working Faces

Working faces and overall working batters may be locally steeper than the terminal batter design and are determined by the excavation method and material type. Working face profiles above and below groundwater are depicted visually on the insets on Figure 3 Site Layout Plan.

Safety bunds will be established along the edge of pit ramps and quarry faces. Safety bunds will be constructed at an appropriate height, width and durability to withstand forces from the vehicles moving through that area.

Working faces that are unattended for a period of greater than 12 months will be treated to manage erosion. Typical controls include diversion drains and bench drains.

All slopes/batters including excavations, roadways, stockpiles and dumps will be constructed and maintained to ensure stability. If there is a significant slope failure event, operations will cease in that area and the relevant authority notified, and the appropriate steps taken to rectify the incident.

The final extraction limit will be surveyed and marked out on the ground with yellow posts.

The extraction boundary, as defined above, is shown on Figure 3 Site Layout Plan.

Groundwater

Depth of Groundwater

Hydrogeological assessment for this proposal was undertaken by Nolan Consulting and is attached. Four groundwater monitoring bores have been installed around the site (see attached monitoring bore licence) and there are two existing licensed production bores with a combined annual allocation of 261.9ML. A fifth groundwater monitoring bore is to be located in the north-east of the site (see Figure 3 Site Layout Plan).

The pit will be operated dry down to the groundwater level which currently varies across the site from less than 1m to approx. 4m in the monitoring bores. The groundwater level will fluctuate seasonally by up to 0.25m above and below the mean level. It is expected that as the extraction area opens up that the groundwater level would reduce in the east. Refer to attached hydrogeological assessment.

Dewatering Activities

Limited dewatering may be undertaken to assist in the pit development, for overburden and interburden removal. Where this occurs the extracted water will be returned to the groundwater system within the site. There will be no off site discharge of groundwater.

Groundwater Management Plan

The adaptive Groundwater Management Plan (Appendix F of attached Hydrogeological Assessment) details an ongoing groundwater monitoring program which will be implemented. This advice also details triggers and a contingency plan which outlines mitigation measures to be undertaken if the trigger events occur (i.e. a Trigger Action Response Plan, or TARP).

Following any periodic reviews or changes in circumstances, additional triggers may be documented in the TARP associated with this Groundwater Management Plan (in accordance with the Hydrogeological Assessment).

Vegetation clearing

An ecological assessment (Norris and Schoeffel report attached) has been conducted of the site, and no areas of assessable native vegetation were identified within the proposed disturbance area. A single large tree was identified close to the eastern Work Authority boundary and the disturbance area was modified to avoid this with a 20m exclusion zone to be established around the tree.

The assessment noted that the existing site farm dam is a DELWP mapped wetland. Advice from DELWP agreeing that this area of 'mapped wetland' can be excluded from assessment is attached. Additionally, the assessment identified a few larger trees just outside of the Work Authority boundary whose Tree Protection Zones (TPZs) intruded within the Work Authority. These TPZs were potentially impacted by the shallow drainage diversion and screening bund, which are necessarily close to the boundaries, but it was found that none were impacted by the proposed disturbance.

Blasting Activities

There will be no blasting.

Surface Water Management

Due to the dynamic nature of the earthworks around the site, the detailed location of water dams, pipes, drains, sumps, pumps and other water infrastructure changes constantly with the progression of extraction and rehabilitation works. The over-riding objective of the adaptive Surface Water Management Plan for this site is to divert surface water runoff from undisturbed areas away from disturbed operational areas and to collect all runoff from disturbed areas in the quarry excavation via sumps and settling pits.

A mapped surface drainage line, Melbourne Water asset DR2504 flows from near the north-eastern corner of the site across its northern portion and exits near the northwest corner. The consulting firm Spiire Australia Pty Ltd, following engagement with Melbourne Water, have undertaken a flood assessment and designed a waterway diversion to separate this asset from the proposed extraction area (see attached flood assessment and waterway diversion design). The diversion design has received in principal support from Melbourne Water (refer to Spiire report) and will ultimately require separate approval from Melbourne Water, including the specifics of design detail and the required revegetation on completion of construction.

Drainage diversion

There are a number of constructed internal drainage lines within the property associated with the farming activities. As the pit develops across the property these will disappear and the northern waterway diversion described in the Spiire report will be constructed to transmit surface water entering the property from the east around the disturbed areas to exit into the existing drainage line near the north-western corner of the property. The diversion is designed with broad areas for floodwater storage and the flood modelling conducted by Spiire shows that the excavation will not be impacted by a 1%AEP event and the excavation will not flood.

Only incident rainfall water will be collected within the disturbance area. Surface water will be managed by the strategic location of swale drains, bunding, sediment traps and sumps to ensure water traversing over disturbed ground does not leave the site but is directed to the broader extraction area (water filled) or the in pit water storage located within the extraction area.

Incident rainfall water outside the disturbance area will be directed away from the disturb areas by the strategic location of swale drains and bunds and will be returned to the environment. Clean water as defined by EPA guidelines may be allowed to leave the site.

The layout of changing perimeter drains, pipelines, bunding and cut off drains across the site to capture water flowing over disturbed surfaces are detailed as the quarry develops in the adaptive Surface Water Management Plan.

The measures adopted when disturbing new ground are consistent with the EPA guidelines with specific actions detailed in the Risk Management Plan.

Quarry Waste - hazardous material

There are no introduced hazardous materials in the resource.

The flocculants used to settle and consolidate the slimes, which will be included in the blended mix of overburden and consolidated slimes that will be deposited in the water filled pit, are industry proven and accepted environmentally safe products. The proportion of flocculants in the blended material will be very small. The water draining from stockpiles of consolidated slimes in the Processing and Stockpiling area or a Temporary Materials Storage and Handling area (Figure 3) will pass through a sediment / interceptor trap prior to returning to the in-pit water storage.

Some of the organic coated sands and lenses of peaty materials may have the potential to generate acid if they are exposed to the atmosphere for a prolonged period. As far as practicable, the exposure of these materials will be minimised and they will generally be retained below water within the pit to avoid acidification. When such materials are extracted from the pit for processing they will be stockpiled within the Processing and Stockpiling area or a Temporary Materials Storage and Handling area (Figure 3), where runoff is collected and directed back to the in pit water storage. Any acidified runoff can be treated, if necessary, either at the interceptor trap or when drawing water from the in pit storage. The treatment utilised will be careful, measured application of neutralising agents, which is necessary, apart from maintaining water quality, to ensure that the water supply does not impact the effectiveness of the flocculants used in the processing plant.

Additionally, the sediment-laden water coming from the wash plant to the thickener will be treated, if necessary, by an automated dosing system to ensure that any acidity does not impact the effectiveness of the flocculants used in the thickener. The acidity of the water supply coming into the plant and water leaving the plant will also be monitored and treated if necessary to maintain, as far as practicable, approximately neutral conditions in the water storages.

A register of MSDS sheets of any chemicals (i.e. hydrocarbons, flocculants, neutralising agents, dust suppressants, herbicides, pesticides, copper sulphate, etc.) used or stored on the site will be maintained at the quarry office.

Sensitive Receptors

The extent of Crown land is shown on Figure 2 Locality Plan. Crown land within the vicinity of the site includes the South Gippsland Highway along its southern boundary and the Adams Creek Conservation reserve which is approx. 500m to the northeast.

Residential properties within 2km of the work authority are shown on Figure 2 Locality Plan. The nearest 4 residences are also outlined on the Site Layout Plan Figure 3.

A noise impact assessment conducted for the proposal by Enfield Acoustics (attached) indicates all aspects of the proposed operation (extraction, processing, sales) can operate in compliance with the recommended noise levels of the EPA.

An air quality impact assessment of the proposed development conducted by WSP (attached) found that the proposal will not exceed current EPA guidelines at the nearest residences.

The Beach Energy Gas Refining Facility (Bass Gas plant) adjoins the north-eastern portion of the site. WA1338 adjoins the northern site boundary and two other sand extraction operations are located just east of the Bass Gas property.

There are underground gas pipelines approx. 340m east of the site and approximately 20m north of the site boundary over a length of approximately 200m as shown on Figure 2 and Figure 3. These pipelines connect to the Bass Gas Plant and the only parts of the proposal within proximity are the proposed waterway diversion and a proposed water monitoring bore. Attached is advice from Beach Energy, dated 4 August 2022, confirming that the works for the waterway diversion are at an appropriate setback from the gas pipeline easement and requiring that the water monitoring bore be at least 30m from the easement.

Roads, bridges, pipelines, powerlines and other public assets within 2km of the site are identified on Figure 1, Regional Plan and Figure 2, Locality Plan with the powerlines and gas pipelines detailed on Figure 3.

There is an electricity easement and power poles transecting the southern portion of the site. The poles and wires are shown on Figure 3 and they will be relocated along the southern boundary before extraction begins in the southern portion of the site (Stages 2 or 3), which will be some years into the quarry operation. The proposed relocated position of the powerlines is also shown on Figure 3. Attached is advice from AusNet Services, as a chain of emails in July 2022, covering a range of considerations for relocating the powerline. AusNet Services have advised that they do not provide site specific advice until there is a formal application

to relocate the powerline, which will not be required for some years. However, the advice provided in response to our queries demonstrates that the powerline can be relocated along the southern boundary of the property generally aligned with the outer toe of the screening bund. AusNet Services advises that taller poles can be used to safely pass powerlines over the 5m high screening bund, where necessary, maintaining a 5m separation distance. While there is no requirement forbidding the planting of trees and shrubs within the future 12m wide easement, it is proposed to limit plantings on the nearest parts of the screening bund to low shrubs to avoid the need for later lopping and maintenance. There will be sufficient access (at least 10m) between the toe of the bund and the property boundary for installation of the relocated power poles and the south-eastern corner of the screening bund is angled to allows space for the redirected powerline from the neighbouring property.

The description of titles and depth limitation are presented in the Area Details Section.

As previously described, Melbourne Water waterway asset DR2504 will be diverted away from the proposed extraction area. A minimum 40m buffer between the extraction and the shallow waterway diversion channel (excluding any surficial disturbance at its margins) will be maintained along its length to ensure it is not impacted by the proposal.

Heritage sites

WA007541 is not impacted by any Aboriginal Victoria (AV) cultural heritage sensitivity areas – refer to the attached CHMP requirement declaration and self-assessment.

The Victorian Heritage register has been reviewed and Heritage Victoria advise that there no archaeological sites or historic places currently included in the Victorian Heritage Register or Heritage Inventory within the subject area

Certificate of Title

Copy of titles attached

Planning Property Reports

Planning Property reports are attached

2. AREA DETAILS

Property Name:

Lang Lang Sand Resources Quarry

Street Address:

5575 South Gippsland Highway, Lang Lang

Area:

116.38ha

Land tenure:

Freehold:

Current Registered Proprietor

Geoffrey James Pate of RMB 5575 South Gippsland Highway Lang Lang VIC 3984

To be transferred to Aurora Construction Materials under a contract of sale in 2023.

Depth limitation

15.24m

3. MINERALS & EXTRACTION

WA Commodity

Sand

WA Commodity PRIMARY

Sand

Total resource estimate

13.5 million tonnes

Maximum terminal depth of extraction

Maximum Depth 30m, with the elevation of the maximum terminal depth being at approximately RL -10m at the western end of the pit

Overall slope angle (maximum of terminal batters, prior to rehabilitation)

18deg (1v:3h)

Top soil volume and unit of measure

165,000 insitu cubic metres

Topsoil depth

250 mm

Overburden volume and unit of measure

2.6 million insitu cubic metres plus 2.5 million cubic metres insitu of interburden

Overburden depth

4m average; interburden (total) averages 3m

Area of disturbance (in hectares)

84.3ha, plus 13.5ha to establish the northern waterway diversion early in the operation, which will be immediately rehabilitated and then remain as a permanent waterway in the rehabilitated landform

Maximum disturbance at any time (in hectares)

58ha, including the 13.5ha to establish the waterway diversion in the earlier stages of development

4. OPERATIONS

Operation type

Shallow dry extraction, then wet extraction below groundwater.

4.1. Plant & Equipment:

Buildings and non-processing assets: This Work Plan is for a greenfield site and will require the initial establishment of site infrastructure. The existing site farm access road and intersection will be upgraded to the weighbridge, processing plant and stockpile area. Next will be the office, amenities, light vehicle parking for employees and visitors, truck parking, the weighbridge, workshop, fuel storage and hydrocarbon storage.

Mobile Plant

The earthmoving and mobile processing equipment will vary as demand requires. The earthmoving equipment on the site may comprise scrapers, dozers, excavators, dump trucks, graders and front-end loaders. Excavators, dump trucks and scrapers are used for stripping of overburden and for extracting and delivering raw material from above groundwater to the processing plants or raw feed Stockpiles. Extraction below groundwater can be by excavators, floating dredge, drag lines and grab cranes.

Mobile processing equipment will be self-powered dry processing screening and stockpiling units for production of packing sands, mortar sands and soil.

The front-end loaders are used predominantly for product sales and stockpile duties.

An excavator and/or front-end loader will be used for loading trucks for sales or for delivery of raw feed to the processing plants.

A water tanker truck will be available for dust suppression as required.

A dozer will be used to push up soil prior to overburden removal, push out backfill material, prepare and tidy up the quarry floor and other worked out areas, pushing overburden and for profiling overburden mounds and final rehabilitation batters.

A road grader will be used to maintain all internal roads and for the final profiling of rehabilitated areas.

Other equipment used to move materials about the site will include pumps and both fixed and floating pipelines as well as fixed and floating conveyors,

All mobile equipment will be serviced and operated by qualified personnel. Equipment will be fitted with appropriate spark arrestors, roll over structures and fire extinguishers.

4.2. Processing Plant

The Wash Plant will comprise feed bins, screens, tanks, classifiers, cyclones and thickener with associated conveyors, pump lines, attritioning and dewatering equipment. It is planned to further process the thickened slimes with a belt press or similar dewatering equipment to recover process water and reduce slimes to a 'spadeable' consistency, eliminating the need for wet slimes storage i.e. slimes dams.

The site will employ (self-powered) mobile wash plant and slimes treatment units during the final stage of extraction, when the site of the Processing and Stockpiling Area is to be removed.

Derelict and redundant plant

All derelict and redundant plant, vehicles, machinery and equipment will be stored in a designated area, out of sight of the general public, until removed or sold to a third party.

Equipment Location:

The site will operate with a combination of fixed and mobile processing plant. The location of the fixed Processing Plant and Stockpiling area is shown on Figure 3, Site Layout Plan, and will be established once a raised base has been constructed. The final stage of extraction requires removal of this processing plant and hardstand area and replacement with mobile plant located on a new hardstand area to the north-west of the pit, as indicated on Figure 3.

Mobile plant for dry processing may be located close to the extraction face as well as within the stockpiling areas near the fixed wet processing areas.

Location of topsoils, overburden and product

Overburden and soil removed from the initial extraction area will be used in staged construction of the screening bund along the South Gippsland Highway frontage as well as part of the eastern boundary and to form the raised base for the Processing and Stockpiling Area, as shown on Figure 3. This bund will remain after extraction and rehabilitation works have been completed.

The location of temporary topsoil, overburden / interburden and consolidated slimes stockpiles are shown schematically on Figure 3 Site Layout Plan, i.e. the Processing and Stockpiling Area and the Temporary Materials Storage and Handling Area. These stockpiles are dynamic and will be located within the disturbance area. Note that these stockpiles will be removed at site closure. When sufficient excavation area has been developed then overburden / interburden will be used to partially backfill these depleted areas.

Product stockpiles will be located adjacent to the relevant processing plant, see Figure 3 Site Layout Plan. Any product stockpiles from the mobile plant during the dry extraction will be dynamic, moving around the site as the upper sand is extracted, whilst wet extracted sand stockpiles will be more static, staying in the general vicinity of the Plant and Stockpile area designated on Figure 3, Site Layout Plan.

Plant oversize / waste and consolidated slimes generated from the processing plant will be blended and mixed with overburden / interburden for progressive partial backfilling worked out areas of the site.

Dewatering equipment:

If partial dewatering of excavation areas is required for overburden and interburden removal then this water will be pumped into adjoining excavations using self-powered / self-priming pumps.

Location of water bores and pumps:

There are two pre-existing licensed bores (WRK041821 and WRK066223) located near the current dairy, see Figure 3 Site Layout Plan. As the pit develops much of this licensed allocation will be accessed from the groundwater exposed in the pit, under the modified groundwater licence (WRK125327), being pumped from the water storage within the initial extraction area beside the processing plant, as shown on Figure 3. Equipment/infrastructure to move water around the site will comprise pumps, dams, tanks, pipelines and

constructed features such as swale drains, bunds and sediment dams. The location of these features will be stage dependent and will move about the site as extraction progresses.

Infrastructure

Location of workshop, storage sheds, lunchroom, amenities, site office, weighbridge, training and meeting rooms, maintenance, hardstand and Vehicle wash-down:

A workshop, storage sheds, fuel and hydrocarbon stores, amenities, site office, employee and visitor vehicle parking, weighbridge, maintenance area, hardstand area and vehicle wash-down will be located within and adjoining the Processing and Stockpiling area outlined on Figure 3 Site Layout Plan.

Site Security

Unauthorised access to the site may lead to members of the public being impacted during quarry operations and this hazard is to be managed so that the risks posed to members of the public are minimised as far as reasonably practicable. The operation adjoins sparsely occupied, private agricultural land, as well as other extractive industries and the Bass Gas plant.

The operation implements standard industry control measures for site access, which will be sufficient to minimise the risks posed. Primary site access is limited to the frontage to the South Gippsland Highway which will be signed and gated. Fencing, which will incorporate appropriate signage at intervals, is a combination of security fencing and farm fencing based on the adjacent land use. Additionally, the large screening bund will be constructed at an early stage along the entire frontage to the South Gippsland Highway, restricting access to the managed site entrance.

Operation hours:

Extraction (all earth works, stockpiling and onsite cartage):
6am to 6pm Monday to Saturday, No work Sundays or public holidays.

Sales (movement of transport vehicles into and from the site):
6am to 6pm Monday to Saturday, No work Sundays or public holidays

Processing (screening, washing, etc., incl. cartage from stockpiles):
6am to 6pm Monday to Saturday, No work Sundays or public holidays

Works outside of these hours is only for essential maintenance unless otherwise authorised.

5. PLAN RELATED DOCUMENTS

Work Plan Area

Figure 2 Location Plan

Regional Plan

Figure 1 Regional Plan

Site Layout Plan Area

Figure 3 Site Layout Plan

Risk Management Plan

The Risk Management Plan includes individual Risk Treatment Plans for each hazard and a Risk Register. These identify the quarrying and rehabilitation hazards relevant to this operation, the risks these hazards may pose to sensitive receptors, and provide detailed risk assessment and risk management. The risks are assessed in regard to the sensitive receptors that may potentially be impacted by this operation, being those

in relation to the environment, any member of the public, or land, property or infrastructure within the vicinity of the work. The risk management set out in these documents includes control measures, performance standards and an outline of the relevant management systems, practices or procedures for monitoring and managing the risks.

Refer to the attached Risk Management Plan, including Risk Treatment Plans and Risk Register, for detail.

Community engagement plan:

The aim of the Community Engagement Plan (CEP) is to share relevant information about the Work Authority that may affect the community and providing reasonable opportunities for the community to express their views about activities at the site. The name and contact details of the site manager will be displayed on a sign at the Site Entrance for any members of the community to use for providing feedback. Additionally, feedback may be sent to LLSR's Head Office at Suite 2, Level 1, 20 English Street, Essendon Fields.

The CEP provides reasonable opportunities for the community to express their views about activities at the site, including the establishment and maintenance of a complaints register with the following information to be recorded:

- the date and time of the complaint;
- who the complaint was from;
- the specific issue/s raised in the complaint;
- the actions taken to address the specific issue/s raised in the complaint;
- notifying complainant with outcome.

Refer to the attached Community Engagement Plan for detail.

Rehabilitation plan:

The primary objective of the Rehabilitation Plan for the site is to leave it in a safe, stable and sustainable manner and to a standard suitable for the ongoing use for agricultural activities and passive recreation.

Progressive rehabilitation and land management priorities include:

- Surface drainage and erosion control
- Maintaining appropriate / effective visual screens through bunds and vegetation
- Weed control and management;
- Pest animal control and management;
- Fire management;

All proclaimed noxious weeds on the site will be controlled in accordance with the Catchment & Land Protection Act (1994) and the recommended herbicide applications. The primary objective is to ensure that noxious weeds do not contaminate adjoining land. Weed control will be carried out in accordance with the herbicide manufacturer's recommendations including the most appropriate time to ensure an effective kill. Care will be exercised during weed control works to ensure that any natural regeneration of shrubs and trees will not be sprayed with herbicide.

WA007541 Rehabilitation Plan details the objectives, strategies, monitoring and reporting requirements as well as the criteria for progressive rehabilitation and closure.

Indicative time length between completion of extraction and rehabilitation

Progressive rehabilitation will be integrated into daily operations as much as possible to achieve a successful outcome. Rehabilitation of segments of the terminal faces will not commence until extraction has reached the terminal pit edge and design floor level.

It is anticipated that all earthworks involved in rehabilitation will be achieved within 12 months of the completion of extraction.

The maximum disturbed area at any time is estimated to be 58 hectares.

The rehabilitation concept is illustrated on Figure 4 Rehabilitation Landform.

Key aspects of this rehabilitation plan are:-

- to develop a landform with a central water body and peripheral land suitable for agricultural activities (e.g. grazing).
- to initially encourage revegetation of the final surfaces with plant species to stabilise the surfaces and prevent erosion;
- to actively encourage natural regeneration of local species.
- to continually monitor and evaluate the effectiveness of rehabilitation and revegetation and modify as necessary to continue to achieve the stated objectives;
- to monitor the waterbody health.

Refer to the attached Rehabilitation Plan and Figure 4, Rehabilitation Landform, for detail.

6. ATTACHMENTS

Work Plan Attachments

Work Plan Components	
Work Plan Description	WA007541_WP_Description_Feb2023.pdf (*this document*)
Figure 1, Regional Plan	WA7541 Fig1_Regional Plan_0322.pdf
Figure 2, Location Plan	WA007541_Fig2_Locality Plan_0822.pdf
Figure 2A, Crown Land Status	WA007541_Fig2A_Crown Land.pdf
Figure 3, Site Layout Plan	WA007541_Fig3_SiteLayoutPlan_0223.pdf
Risk Management Plan: Risk Treatment Plans	WA007541_RMP_v06_Feb2023.pdf
Risk Management Plan: Risk Register	WA007541_Risk_Register_v4_Feb2023.pdf
Community Engagement Plan	WA007541 Community Engagement Plan v2 Sep 2022.pdf
Rehabilitation Plan: Text	WA007541_RehabPlan_v5_Feb2023.pdf
Rehabilitation Plan: Figure 4, Rehabilitation Landform	WA007541_Fig4_RehabLandform_0223.pdf

Supporting Documents

Property Documents	
Certificate of Title	5575 Sth Gippsland Hwy consolidated titles.pdf
Planning Property Report	5575-South-Gippsland-Highway-Lang-Lang-Vicplan-Planning-Property-Report.pdf
Other Documents	
Surface Water Management Plan incl TARP	WA007541_SurfaceWaterManPlan_Feb2023.pdf
Flood Assessment and Waterway Diversion Design	308642-REP-SW-03 WA7541 Stormwater Management Plan w Appendices.pdf
Hydrogeological Assessment, incl initial Groundwater Management Plan	LLSR report 2023_02_28.pdf
Groundwater Use Licences – Southern Rural Water	WA007541 GW Works and Take&Use Licences.pdf
Groundwater Monitoring Licences – Southern Rural Water	WA007541 GW Monitoring Works Licence.pdf
Geotechnical Assessment	12527040-RPT-1_5575 South Gippsland Hwy Geotechnical Assessment.pdf
Ground Control Management Plan	12527040-RPT-2_5575 South Gippsland Hwy GCMP.pdf
Ecological Assessment	ACM_NVR__Ecology_Report_2022_08_29_final.pdf
DELWP Mapped Wetland Advice, dated 21 Apr 2021	RemoveWetlandLangLangSandQuarry_WrittenAgreement_Signed.pdf
Air Quality Impact Assessment	Air Quality Impact Assessment PS121740-AQ-REP-000 RevE.pdf
Noise Impact Assessment	V299-01-P Acoustic Report (r3).pdf
Beach Energy Advice, dated 4 Aug 2022	Beach Energy Letter to ACM - 04082022.pdf
AusNet Services Advice, July 2022	AusNet Services Advice - July 2022.pdf
Imported Materials Management Plan	WA007541_IMMP_Dec2022.pdf
CHMP Requirement Declaration and Self-assessment	WA7541 CHMP Dec & AV process list signed.pdf