

Charles Hull Contracting

Limestone Pit Management Plan

2014 -2018

Lot 1 Old Coast Road, Lake Clifton

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Foreword

This management plan addresses key issues in the current management of the Charles Hull Contracting Limestone Pit and provides information for all parties on the goals and strategies for satisfactory management of the pit and remaining property. The primary users of this management plan are at the operational levels who implement best practice in company operations. The plan needs to be flexible to accommodate changes in operations and improvements to industry best practice.

1.0 General Property Details

1.1 Property Ownership

The property is currently owned and managed by Charles Hull Contracting Co P/L, PO Box 63, Waroona WA 6215

1.2 Property Description

Lot 1 Old Coast Road, Lake Clifton located in the Shire of Waroona, being Lot 1 of Deposited Plan 49358 Vol 2685 Fol 539.

1.3 Area of Property

Total property area is 39.3363 ha or 97.2 acres.

1.4 Zoning

The land is zoned Rural 3B

1.5 Description of Land Use

The previous owner had an existing limestone pit on the property for many years for the main purpose being the production of limestone blocks, pushing lower grade limestone material aside.

Since ownership, Charles Hull Contracting has established new boundary fencing and firebreaks and made improvements to the pit for the production of limestone roadbase.

1.6 Property Location Map



2.0 Goals

- Improved mine management for efficient resource extraction.
- Return the area to a safe and stable condition for purpose of post mining land use or subdivision.
- Improved community receptiveness to future mining proposals.
- Enhance public image and reputation

3.0 Existing Site Features

3.1 Geology and Topography

The soils are siliceous sands with limestone caprock being an undulating hill which slopes east to west.

3.2 Hydrology

The site is free draining due to the porous nature of the soil. There is no known salinity or acid sulphate soils.

3.3 Flora

The area is previously cleared land with regrowth of Tuart Eucalyptus gomphocephala, WA Peppermint (*Agonis Flexuosa*), Jarrah (*Eucalyptus marginata*), various understorey *Hibbertia* species and introduced grasses and weeds. There is no known declared or rare priority flora within the location.

3.4 Landform

Part of the pit floor has been rehabilitated, however there is an area in the south east portion of the block, excavated by the previous owner where overburden and non-rehabilitated landform remains. This should be excavated and restored to blend the constructed landform into the landscape.



Photo ref 2

3.2 Pit features

Overburden has been stockpiled in windrows along the western side of the exposed pit area. Revegetation has occurred naturally.



Photo ref 3

Overburden and topsoil has also been placed on eastern edge of active pit for future rehabilitation requirements.

3.3 Access Road

The access road has been upgraded with gravel roadbase in order to reduce dust and provides safe entry and exit to the pit floor.



photo ref 4

4.0 Typical Pit Operation

4.1 Clearing of the area to be mined

This is undertaken with a Native Vegetation Clearing Permit issued by the Department of Environmental Regulation.

4.2 Topsoil stripping

Topsoil and overburden are removed to gain access to limestone material. This is done in stages to access material for crushing requirements.

4.3 Preliminary ripping and pushing up of crushing material

A large bulldozer breaks limestone and pushes it into a stockpile ready to be fed through the crusher

4.4 Crushing and screening of limestone

Company owned crushing plant is set up on the pit floor next to limestone cell and material crushed and placed in stockpiles.

4.5 Loading and transport of finished product

Trucks access pit stockpile via a one way in / one way out access track when roadbase product is required.

4.6 Hours of Operation

Monday to Friday 7:00am to 5:00pm

Saturday 7:00am to 3:30pm

5.0 Health & Safety Issues

Charles Hull Contracting employees, including plant operators and truck drivers, are experienced personnel whom are competent in operating machinery in an efficient and safe manner and do so under our Health and Safety Management Policy.

Mr Peter Frerk, CHC Pit Supervisor, is responsible to liaise with the Mines Department and enact Mines Department requirements to maintain a safe working environment.

6.0 Environmental Management Plans

6.1 Dust

Pit operations generate dust from a variety of sources including vehicle and equipment traffic on paved and unpaved roads, earthmoving vehicles and equipment during pit operations, wind erosion from disturbed soils and material handling and transport.

Current pit is setback 100m from property boundary on western side with established trees within that setback.

Dust events in the pit area are to be minimized to maintain a safe working environment. The wind speed is reduced somewhat due to pit floor being lower than surrounding land form.

Clearing and topsoil stripping is to only take place when there is sufficient soil moisture and rainfall to create a crust on the surface.

The pit supervisor must take notice of the prevailing wind direction and wind speeds at all times.

Dust can be a significant issue in instances of dry hot winds and the responsible approach is to suspend loading or extraction operations until these conditions abate.

If dust is excessive, employees are authorized to cease work.

In the past, the extraction and crushing has created little dust due to the inherent moisture content in the limestone.

Dust emissions from access tracks are proportional to vehicle speeds. Vehicle speed limit of 35 kph will be enforced to minimize dust created from vehicle movements.

Pit supervisor will be onsite to monitor dust levels. If dust control problems are found to be reoccurring additional dust control methods will be implemented.

The watercart on site can be used to transport additional water to dampen road surface or stockpiles if required.

6.2 Stormwater

Stormwater runoff is primarily retained within pit as it is lower than surrounding landform. Following heavy rain events accumulated runoff water percolates into the subsoil. Stormwater runoff from driveway is diverted so it remains within property boundary.

No fuel or oils is stored on site.

6.3 Rehabilitation

Rehabilitation requires pit operations to be undertaken with a view to the final landform.

Rehabilitation objectives in pit management are to repair landform in order to achieve a satisfactory terrain with a parkland cleared type pasture. Adequate access for future land use and management issues like fencing, weed control, livestock and fire access, and reduce total area of open pit before further clearing are also required.

Topsoil shall be dressed on excavated areas with a minimum depth of 5 centimetres.

Priority area is to rehabilitate area of old pit to the south of the access road. Work commenced, as pictured below, to be continued in the following autumn/winter and finalised with seeding and planting.



photo ref 1

Rehabilitation of old and current pit area will be progressive as per attached Pit Operation and Rehabilitation Map.

Plant species to be used for rehabilitation are Tuart (*Eucalyptus gomphocephala*, WA Peppermint (*Agonis flexuosa*), Jarrah (*Eucalyptus marginata*) and native pasture grasses including Kangaroo Grass (*Themeda australis*), Wallaby Grass (*Austrodanthonia geniculata*) and Warrego Summer Grass (*Paspalum jubiflorum* (trin.) Hughes).

Enquiries should be made as to rehabilitation of old pit area.

6.4 Dieback

Phytophthora species are fungal-like organisms which prevent plants from absorbing water and nutrients eventually killing them. The plant pathogen is spread when infested soil or root material is moved.

As dieback is spread by infested soil or root material, all machinery will be washed down before it comes on site.

Only topsoil from within the property will be used in rehabilitation to prevent introduction of potential dieback affected material. Any imported fill/soil brought onto site will be certified dieback free.

6.5 Topsoil Management

The objectives of topsoil management are to provide sufficient material for rehabilitation and optimise recovery and quality of topsoil for successful rehabilitation.

Stockpiles will be maintained to a maximum height of 3 metres in order to limit the potential for anaerobic conditions to develop within the stockpile

Opportunities for direct placement of topsoil onto rehabilitated areas will be identified to minimise earthmoving requirements and avoid need for stockpile.

Stockpiles will be constructed with rough surfaces to reduce erosion hazard and promote revegetation.

Stripped topsoil will be utilized as soon as possible for rehabilitation.

6.6 Noise

Neighbouring residences are located to the west, on the other side of Old Coast Road.

An acoustical assessment was commissioned by Charles Hull Contracting which concluded that noise received from all operations would comply with the Environmental Protection (Noise) Regulations 1997 for the proposed hours of operation.

Noise will be minimized by maintaining overburden windrows as noise bunding along western edge of pit and locating crusher on the floor of the pit.

The vehicle speed limit of 35 kph enforced for dust control will also mitigate noise issues.

6.7 Fire Control

Although fire is not expected to be an issue, a water cart is on standby to be used for fire fighting.



photo ref 5

6.8 Weed Control

The main environmental weed on site is Cotton Bush, and is controlled on an ongoing basis to maintain property amenity and prevent establishment in rehabilitated areas.

7.0 Monitoring, Maintenance and Pit Completion

7.1 Monitoring

An inspection to ensure that the workplace is safe for persons working there is required under Mines Safety and Inspection Regulations 1995. See Appendix 2

A pre-start inspection must be completed before operating machinery at the pit. This monitoring of equipment is undertaken using the CHC Daily Work Docket. See Appendix 3

During extraction and processing of limestone, dust levels and direction of dust movement will be monitored by pit supervisor.

7.2 Maintenance

Pit floor and ramp levels, access roads, fencing and signage will be maintained where required to comply with CHC and mine safety requirements.

Rehabilitation areas will be maintained to establish good ground coverage and a regular glyphosate herbicide spraying will be done as it is an appropriate treatment to prevent Cotton Bush infestation in the rehabilitation and remainder of property.

Fueling and minor servicing of heavy equipment is completed by a mobile service truck. Major servicing and mechanical repairs are completed at our workshop complex in Waroona.

7.3 Pit Completion

Limestone resource contained on the property will eventually be exhausted and limestone extraction will finish. The property will then need to be subdivided for rural residential type lots.

In order to achieve this in a cost effective manner, the long term rehabilitation of the landform will need to be guided by a subdivision plan. This will identify areas to be re-contoured and re-vegetated so that potential subdivision lots can be fenced and maintained with good amenity and provide good building sites to achieve a successful property development.

A survey plan will be produced which will propose finished ground levels once the mining operations based on this information and given to the shire for approval before substantial recontouring work commences.

8.0 Specific Actions Required

Incorporate the Limestone Pit Management Plan and associated Pit Operation and Rehabilitation Map into Charles Hull Contracting Limestone Pit site induction material.

Establish existing and additional photo reference points for the purpose of monitoring pit operation and rehabilitation with monitoring to be undertaken on an annual basis.

Liaise with government agencies on options for resource extraction and rehabilitation of old pit area in southeastern corner of property.

Develop a Subdivision Guide Plan for Lot 1 Old Coast Road, Lake Clifton in consultation with Shire Of Waroona and relevant planning authorities.

9.0 Duration and Review of Management Plan

Duration of the management plan will be for five years to be reviewed in consultation with the Shire of Waroona every 24 months and may be amended based on the outcomes of that review.

This management plan may be immediately reviewed if circumstances arise which require prompt action to be taken to rectify adverse situations.

Appendix 1 - Pit Operation and Rehabilitation Map

Note: The attached map was developed in consultation with the Pit Supervisor which proposes orderly of extraction of limestone from 'cells' which are indicated by numbers (Area 3 to Area 6).

Time frames of extraction are only proposed as it depends on what material is excavated that meets crushing requirements.

The same numbering will be used in the 24 month review of plan progress.