THE WILD FIG COMPANY Pty Ltd

MORRISSEY ROAD GRAVEL PIT

EXTRACTIVE INDUSTRIES MANAGEMENT PLAN Updated 2024

Original: Civi Test Sou West – April 2009

Revised and updated: D.Mazza – July 2024

TABLE OF CONTENTS

1. INTRODUCTION

2. PIT LOCATION

2.1 PROPERTY OWNERSHIP, LOCATION AND DESCRIPTION
2.2 PIT OVERVIEW, TOPOGRAPHY, VEGETATION
2.3 ADJACENT LANDUSE
2.4 GROUNDWATER HYDROLOGY, WATERCOURSES AND CATCHMENTS
2.5 SURFACE WATER MANAGEMENT
2.6 CLOSEST RESIDENCES and VISUAL RESOURCE MANAGEMENT
2.7 ACCESS ROAD
2.8 PUBLIC ACCESS BARRIERS
2.9 SAFETY
2.10 EXISTING INFRASTRUCTURE

3. OPERATIONAL PROCEDURES

3.1 STAGES, GRAVEL EXTRACTION AND PROCESSING
3.2 TRUCK MOVEMENTS
3.3 NOISE
3.4 DUST
3.5 POLLUTANTS
3.6 WEED MANAGEMENT
3.7 DIEBACK MANAGEMENT

4. REHABILITATION

4.1 TOPSOIL REHABILITATION
4.2 SEEDING
4.3 MONITORING

5. REFERENCES

6. LIST OF FIGURES

Figure 1: Lot 130 Morrissey Road, Yabberup, WA 6239 title outline
Figure 2: Locality Plan
Figure 3: Extraction lot 1 – drill holes noted

7. LIST OF APPENDICIES

Appendix 1: Site plan - 2009
Appendix 2: Hornet Drilling and Geological Services Pty Ltd, Gravel resource report, 2017
Appendix 3: Thompson Surveying, Site Plan contour survey, 2017

1. INTRODUCTION

The purpose of this updated Pit Management Plan (July 2024) is to support the renewal of the Extractive Industries Licence currently in place on Lot 130 Morrissey Road, Yabberup to continue extracting and processing laterite gravel products. The original licence was granted in May 2009 which was renewed to a 10-year licence with an estimated volume of 300,000t granted in April 2013.

From 2009 to 2024, the operator has removed approximately 95,000t of gravel. A geological drilling report completed in 2017 estimates there is approximately 202,000t of gravel material remaining in the deposit.

The applicant has complied with the conditions of the Extractive Industries Licence and conducted annual site visits with representatives from Shire of Donnybrook-Balingup.

The request is for the Shire of Donnybrook-Balingup to grant a new 10-year Extractive Industries Licence for gravel with the same total volume (300,000t) and the same conditions as the 2013 licence. This will enable the applicant to continue running crushing campaigns and making gravel available for local projects. The site plan and footprint of the extraction area remains the same as the original 2009 licence.

The Morrissey Road pit site covers approximately 4.5 hectares and is located on previously cleared pastoral land and therefore has an 'Uninterpretable' dieback status. All basic raw materials from this pit shall only be used in dieback 'infested' areas.

The Pit Management Plan details methods to minimise and manage the environmental impacts of gravel extraction and cartage, and to provide for the rehabilitation of the site.

2. PIT LOCATION

2.1 PROPERTY OWNERSHIP, LOCATION AND DESCRIPTION

Lot 130 Morrissey Road, Yabberup in the Shire of Donnybrook-Balingup as outlines in Figure 1.

Title description:

Deposited Pan: 235119
Volume: 1263
Folio: 436
Area: 58.47ha
Ownership: David John Mazza

The site locality plan Figure 2.

From the Donnybrook town-site:

- Head southeast on South Western Highway towards Kirup and travel 1.6 kms
- Turn Left at Donnybrook-Boyup Brook Road and travel 17.3 kms.
- Turn Right at Morrissey Road and travel 2.6kms.
- The entrance to the site is located 5.38 kms along Morrissey Road on the east side. (280 m south of Katrina Heights).

Reference MGA 94 of the corners of the boundary are:

1. 50367138e / 6247154n – northwest corner.
2. 50367073e / 6247274n – northeast corner.
3. 50367125e / 6247310n – southwest corner.
4. 50367143e / 6247286n – southeast corner.

2.2 PIT OVERVIEW, TOPOGRAPHY, VEGETATION

The pit area is located on the top of a ridge of open land, on private property. The land was cleared many years prior to current ownership to build a runway and was left in a heavily disturbed state with large gravel rocks on the surface making the area difficult to traverse. The slope to the east of the pit is covered in bush. This bush land shall not be affected by pit operations.

Due to the disturbed nature of the site (all vegetation removed), the basic raw material has a dieback classification of 'Uninterpretable' status. As the land is already cleared, the threat of bushfire in the extraction area is considered low.

There are no rare flora species or Priority Ecological Communities in the extraction area.

The deposit is formed along a ridgeline, that commences at the property's north-western boundary fence-line and runs in a south-west direction for approximately 400 m.

The deposit covers approximately 4.5 ha and can be described as 'battle-axe' shaped. It is approximately 200 m wide at its northern end, (adjacent to the fence-line) and continues at this width for about 150 m. At this point, the deposit narrows to a width of approximately 75 m and continues at this width, in a south-westerly direction for a further 250 m.

The elevation of the area ranges from 260m AHD to 271 AHD and falls gently to the north.

From 2009 to 2024, the operator has removed approximately 95,000t of gravel. The original site plan from 2009 – Appendix 1 - remains current for this renewal application. The current and proposed extraction remains within the boundaries of the original site plan.

The first extraction lot remains active with a great deal of gravel yet to be extracted before rehabilitation can begin. Figure 3.

Also noted in Figure 3 is the location of a small dam below the eastern boundary of the extraction site, the access track and gate in the northwest corner and the westerly boundary being >100m from the extraction site.

In 2017 Hornet Drilling and Geological Services Pty Ltd completed a geological drilling report (Appendix 2). After drilling twenty-eight holes, the indicated depth of the material is between 0.5m to 1.8m totaling approximately 202,000t of rocky, sandy gravel material remaining in the deposit.

A detailed 1m contour survey was completed by Thompson Surveying Consultants in 2017 after the geological drilling activity was completed, including datum peg. (Appendix 3). There has been no excavation or crushing activity since this survey was completed in 2017. The 2017 contour survey remains current and accurate.

The pit is being developed in two stages.

Stage 1: Crushing and stockpiling.
Stage 2: Rehabilitation

The owner's intention is to remove the rock and gravel from the top of the ridge, so the land can be shaped to blend with the surrounding landform and utilised as pasture for grazing cattle. A small stormwater retention pond at the northern end of the extraction area will be retained.

2.3 ADJACENT LANDUSE

Under the local planning scheme Number 7, Lot 130 Morrissey Road is zone General Agriculture.

2.4 GROUNDWATER HYDROLOGY, WATERCOURSES AND CATCHMENTS

The site is elevated, and the laterite rocks are in the shallow subsurface. No ground water will be exposed by the development of the gravel pit.

There has been no groundwater intercepted from excavations over the past 15 years. Also, as noted in Appendix 2, Hornet Drilling report, 2017, there were also no ground water intercepts from the 28 drill holes complete.

No wetlands are present on site. The Preston River and associated wetlands are >3kms directly north of the gravel pit.

The site does not fall within the Public Drinking Water Source Area or the Rights in Water Irrigation Act 1914(RIWI) Groundwater Proclamation Area (Landgate, 2024).

A small dam for livestock is located at the base of the ridge to the east of the pit, behind the area of bush. Pit operations do not intrude on this catchment.

2.5 SURFACE WATER MANAGEMENT

Due to the nature of the site, (on top of a ridge), water runoff is inevitable. The site naturally falls gently to the north. The following measures shall be applied to minimise drainage runoff and erosion:

- The pit-floor will be contoured with a minimum of 1 to 100 fall
- A permanent storm water retention pond is to be constructed on the northern end of the extraction site. The stormwater from rain from the entire site can be directed and contained in the one pond
- The drainage pond can also be used as a silt trap.

Buffers or additional setbacks will not be required.

2.6 CLOSEST RESIDENCES and VISUAL RESOURCE MANAGEMENT

The Morrissey Road gravel pit site is located on private property and on top of a ridge. No one is overlooking the pit.

There is natural Visual Resource Management buffer of >100m which will be retained between the western boundary of the pit area and Morrissey Road. Pit operations may possibly be visible from a small section of Morrissey Road, near the access track. Morrissey Road has a verge of native bush adjacent to the property.

There are no structures <500m to the outer boundary of the extraction area as identified in the site plan Appendix 1. There are two structures between 500m and 1000m of the extraction area. One being directly north and the other west of the pit boundary. Due to the hilly nature of the district, pit operations are not visible from either of the structures. There are also areas of extensive vegetation to the north and west of the gravel pit.

2.7 ACCESS ROAD

Access to the Morrissey Road gravel pit will be from Morrissey Road via the Donnybrook – Boyup Brook Road.

The access track to the pit from Morrissey Road has been constructed from the north-western boundary of the property, (280 m north of Katrina Heights). The access track is sheeted with gravel from the Morrissey Road gravel pit and the access is dedicated to the gravel pit usage only.

Operating hours are between

7.00am to 6.00pm – Mondays to Fridays
7.00am to 1.00pm – Saturdays
No work on Sundays and Public holidays

The materials excavated from the site are primarily sold to the Main Roads, Shire of Donnybrook Balingup and local contractors. The number of trucks entering and exiting the site is inconsistent from year to year. Demand for the gravel depends on local projects and truck movements usually occur in campaigns.

Most of the truck movements to date have been by semitrailers (24t).

No unauthorized vehicles are allowed to enter the pit.

The access road to the site is not shared with any of the designated school bus routes.

Appropriate signage is displayed during hours of cartage.

Signage in accordance with the Main Roads Australian Standard, AS1742.3 (TRUCKS ENTERTING), is placed on Donnybrook – Boyup Brook Road:

1. 250 m North of Morrissey Road, (for South bound traffic).

2. 250 m South of Morrissey Road, (for North bound traffic).

2.8 PUBLIC ACCESS BARRIERS

The Morrissey Road gravel pit site is located on private property and away from built-up areas. The property is surrounded by a boundary fence, with a permanent gate at the entrance of the property, adjacent to Morrissey Road. The gate is closed and locked when operations cease at the end of each day.

2.9 SAFETY

The contractor must comply in all respects with the provisions of the Work Health and Safety Act (2020), and all other regulations of the State of Western Australia, applicable to the contractor's operations under their contract of services.

The contractor is responsible for managing safety within the workplace, which will be recognised as the area within the pit perimeter and access road.

2.10 EXISTING INFRASTRUCTURE

The property is privately owned and has no existing infrastructure, such as power lines and telephone cables, which may intrude upon operations.

3. OPERATIONAL PROCEDURES

3.1 STAGES of GRAVEL EXTRACTION AND PROCESSING

The gravel excavation site is approximately 4.5 hectares and is located on uneven previously cleared land. No vegetation exists on the gravel pit site.

An area of up to 3 hectares is worked at any one time which is then to be rehabilitated. This first stage is currently being excavated in substages.

Pit operations have commenced at the northern boundary of the site and proceed in a southerly direction towards the highest point of the pit.

Material is extracted, processed and stockpiled within the footprint of the working stage. The gravel products are sold mostly ex pit to the Main Roads, local Shires and contractors.

The gravel resource is processed in campaigns dependent on demand. A campaign is typically between four to six weeks usually in Summer or Autumn. The following activities on site are carried out by experienced contractors.

- A bulldozer is used to push the topsoil and overburden from the staged area to the edges of the extraction area. A minimum thickness of 100 mm of topsoil and root-layer will be stripped where possible
- The bulldozer then rips and pushes the material up into windrows
- A mobile crushing and screening plant is relocated to site and starts at one end of the windrow and is usually fed with an excavator
- The crushed gravel product is collected and stockpiled in preferably small 2000m3 “flat top” stockpiles up to five metres high. Where possible the stockpiles are located close to the access road to act as further screening
- A crushing campaign is typically 10,000m3
- Samples from the stockpiles are then collected and tested against the Main Roads gravel spec 501 to ensure compliance to Base course and Subbase specifications
- There is no blasting on site
- The extraction will lower the ground level however the site is relatively level on top of a hill requiring little if any battering

3.2 TRUCK MOVEMENTS

Expected operating hours are between 7.00am to 5.00pm – Mondays to Fridays, and 7.00am to 12.00 noon – Saturdays. No work on Sundays and Public holidays

Most projects sourcing gravel from this site use semi- trailer trucks with a payload of 24t. Some small trucks are used with payloads ranging from 5t to 14t.

Over the past 15 years of gavel operation on site, the average project has required 5000t of gravel over roughly four weeks or 10 truck trips per workday on average. The largest project in the past 15 years was 18,000t over nine weeks for the Main Roads at an average of 15 truck trips per day.

Projects are seasonal being undertaken in late Spring, Summer or early Autumn.

Forecasting truck trips is difficult and dependent on the geographic location of approved projects in relation to the gravel pit. The volume of gravel required also varies by project.

All trucking contractors are notified that the speed limit on Morrissey Road is limited to 30km/h between The Donnybrook – Boyup Brook Road and the entrance to the gravel pit. This is to minimise the risk of accidents with light vehicles and reduce dust.

All neighbouring landowners are notified by text before a trucking campaign commences and when the project has been completed.

Truck entering signage is placed before and after the intersection of Morrissey Road and the Donnybrook – Boyup Brook Road in both directions as well as before and after the pit access track on Morrissey Road.

3.3 NOISE

The gravel site is elevated at 260m AHD to 271 AHD, well above all the dwellings and the local landowners in the area except for the neighbouring property directly north which is naturally screened with thick forest and remnant native vegetation. Due to the hilly nature of the district and the thick vegetation north of the extraction site, the pit operation is not visible, and noise has not been an issue.

Where possible the topsoil and overburden has been and will continue to be windrowed along the edges of the extraction area providing an additional noise barrier.

All mobile equipment will be maintained in good condition including their exhaust systems and mufflers. The equipment is also fitted with broadband reversing alarms which are less intrusive.

3.4 DUST

Crushing and stockpiling activities typically generate dust. However, over the past 15 years of processing material on this site, which is mostly rock, the crushing process produced little dust. The laterite rocks are mostly iron ore and bauxite.

As mentioned above, the site is elevated, out of view of the neighbours as well as Morrissey Road and has a great deal of vegetation around it. The windrow of topsoil and overburden along the edges of the extraction area also provide an additional dust barrier.

As a precaution the contractors mobilise a water cart to site.

To minimise dust from trucks carting gravel out of the pit, trucking contractors are notified that the speed limit on Morrissey Road is limited to 30km/h.

3.5 POLLUTANTS

Fuel and oil are not stored at the site. Refueling will be by direct transfer daily. Any soil contaminated by oil or fuel will be removed from the site and disposed of at an approved location.

The pit area and surrounds will be kept free of rubbish and litter, by way of daily removal and disposal.

3.6 WEED MANAGEMENT

The gravel excavation site is approximately 4.5 hectares and is located on previously cleared land. Weed management of the gravel pit site is included as part of the inspection and weed treatment regime currently in the place across the rest of the property.

- Biannual traverse of the property to specifically locate and treat weeds
- This includes the stockpiles of topsoil and overburden from the current gravel pit excavation area
- Weeds targeted include Apple of Sodom, thistle and cotton bush. Immediate action is taken after identification
- Small seedlings are removed by hand
- Spot spraying target weeds with a suitable herbicide and ensuring overspray does not impact surrounding grass species

3.7 DIEBACK MANAGEMENT

The pit site is located on previously cleared land and therefore has an ‘Uninterpretable’ dieback classification and will be managed by the appropriate guidelines applicable to this status (Dieback Working Group, 2010).

The actions below are currently in place to minimise the risk of spreading dieback.

- All vehicles including machinery and trucks inspected on arrival to make sure they are clean and free of soils or other material that main contain the dieback fungus
- The property is fenced and the gravel pit area within the property is fenced separately
- There is a single access track with gate to the gravel pit
- The site will not be operated during wet periods

4. REHABILITATION

The pit shall be rehabilitated to productive pasture for grazing. Before pit operations, the land was in poor state consisting of rocky outcrops overlain with windrows of burnt timber, impeding upon productive pasture establishment and preventing vehicle movements. It is anticipated that the rehabilitated site will be more productive in the growth of pasture after the extraction of gravel.

Rehabilitation works shall be on-going for the duration of the extraction process and will be carried out after the extraction of each lot is completed

- The excavated area shall be shaped to conform with the surrounding landform
- Batters, if required, shall be formed by skimming material from the pit floor and pushing towards the pit edge and shall be left no steeper than a 1:6 gradient. It is anticipated that only a small area on the western edge of the extraction area may need batters
- The pit floor shall be contoured to prevent ponding and to encourage drainage from the entire site to the permanent stormwater retention pond near the northern boundary of the extraction area.

4.1 TOPSOIL REINSTATEMENT

Topsoil reinstatement shall commence as soon as possible after material extraction of each lot worked.

- The floor shall be ripped along the contour using a dozer at approximately 6m intervals, to a depth between 0.5m – 1.0m to enable rapid root penetration
- The final land surface will be a similar grade to the original surface but 1.2m – 1.8m lower
- Topsoil will be spread evenly across the ripped area using a dozer
- Rocks in the overburden can be collected after the topsoil has been spread
- Sufficient topsoil will be withheld to provide coverage of stockpile sites and access tracks due for later rehabilitation

The topsoil/root-layer will not be removed until immediately prior to the commencement of gravel extraction of the next lot.

The topsoil is stockpiled or windrowed into heaps as close as possible to the edges of the worked lot. The windrow also acts as an additional dust and noise barrier.

4.2 SEEDING

Reseeding is aimed at re-establishing the nutrient, carbon and nitrogen cycles in the soil, to encourage the development of a healthy ecosystem and promote future sustainability, encouraging biodiversity.

Direct seeding of clover and grass species will commence in the April – June period following the cessation of pit activities. Timing of seeding is to align as close as possible with suitable rain events. Rehabilitation will occur progressively as gravel extraction and carting is completed and the gravel resource from the active lot is exhausted.

4.3 MONITORING

Monitoring of the rehabilitated area will be ongoing to ensure the stability of the rehabilitated area.

Monitoring will identify issues such as

- Erosion damage
- Seeding patches that have not regenerated
- Appearance of weeds

Maintenance to remediate these risks above will require on going monitoring after completion of the rehabilitation

5. REFERENCES

Dieback Working Group (2010). Management of Phytophthora Dieback in Extractive Industries. Best Practice Guidelines.

Dieback Public Map (2022) Project Dieback

Extractive Industries Licence, approved May 2009, Shire of Donnybrook – Balingup, Lot 130, Morrissey Road, Yabberup

Extractive Industries Licence, Extension, approved April 2013, Shire of Donnybrook – Balingup, Lot 130, Morrissey Road, Yabberup

Landgate (2024).

Water and Rivers Commission (now DWER). (2001). Position Statement: Wetlands

Extractive Industries Licence Checklist, Shire of Donnybrook – Balingup

Figure 1: Lot 130 Morrissey Road, Yabberup, WA 6239 title outline

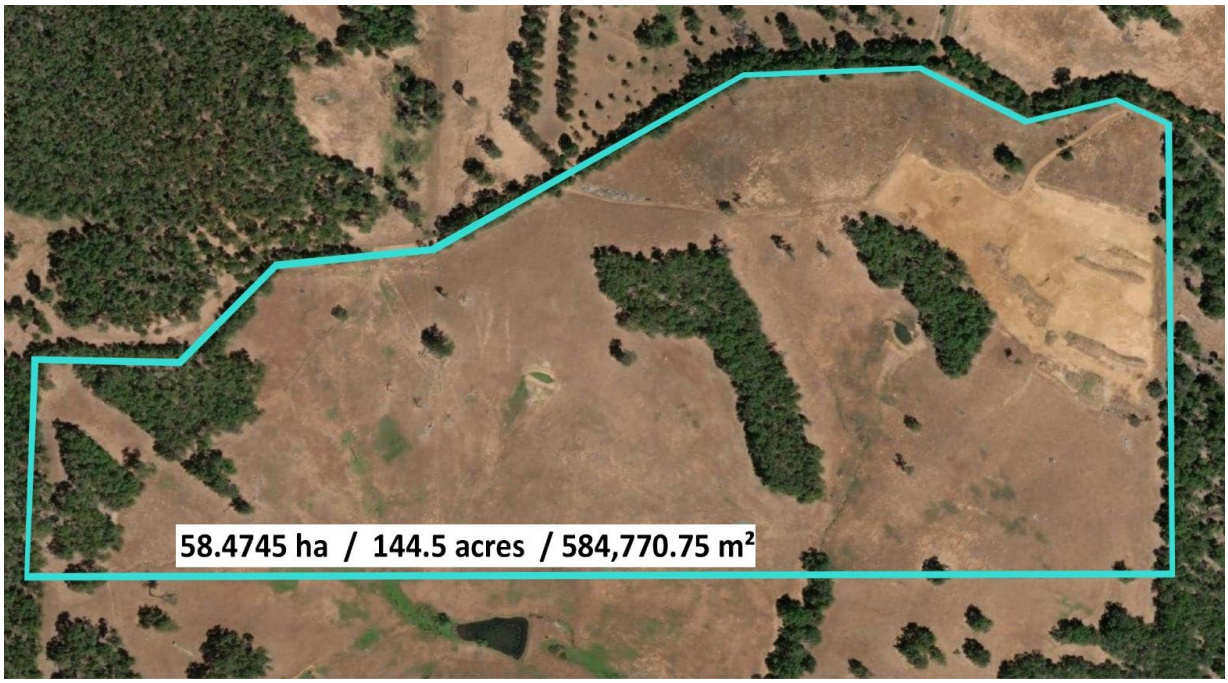

Figure 2: Locality Plan

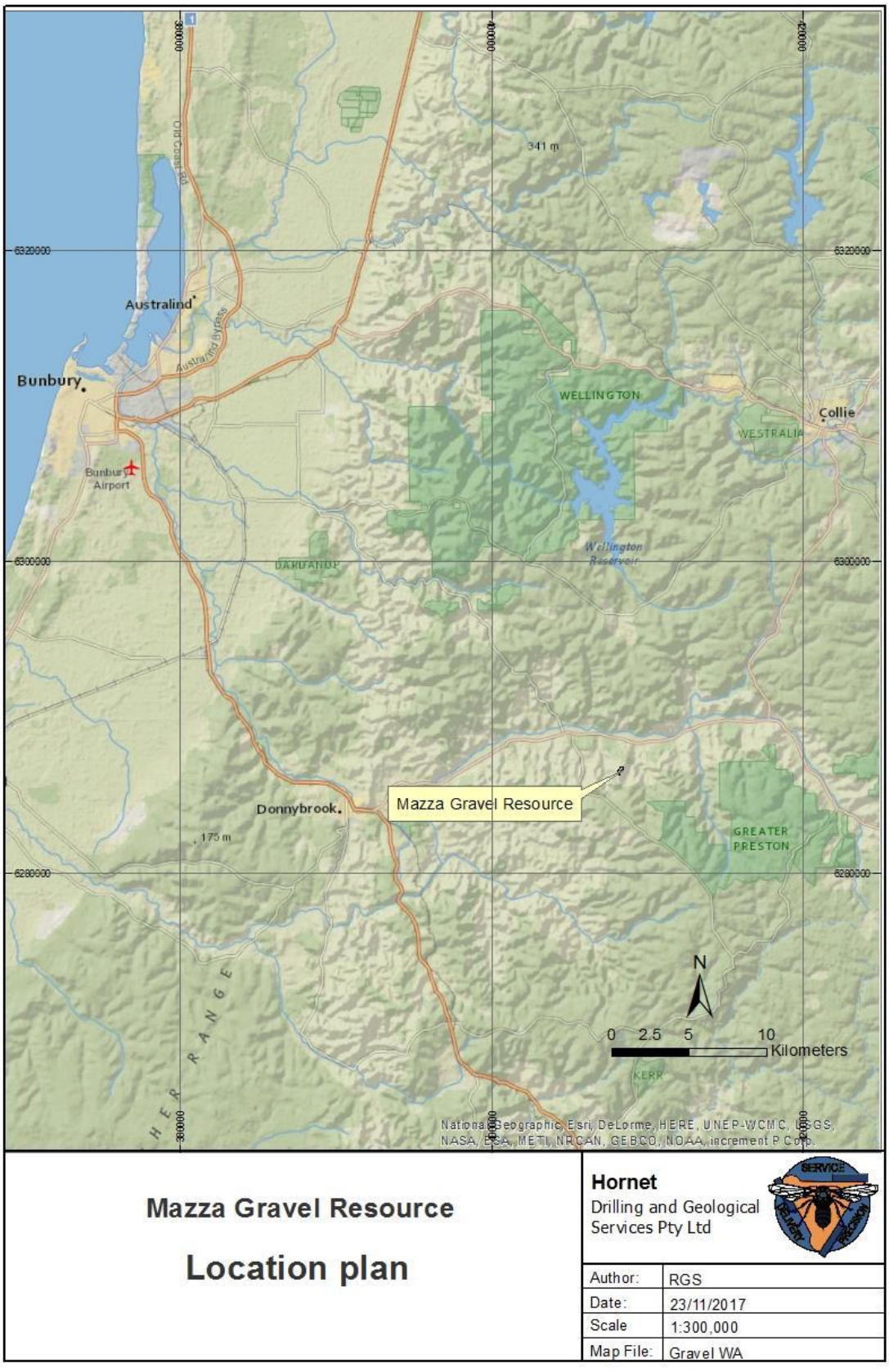

Figure 3: Extraction lot 1 – drill holes noted