

EXTRACTIVE INDUSTRIES APPLICATION

CLOVER DOWNS
LOT 1 GOOMALLING-TOODYAY ROAD
NUNILE WA
SHIRE OF TOODYAY



Prepared for VERNICE PTY LTD

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1. Executive Summary

This application is seeking approval for the extension of the current extractive industry license for the extraction of sand and gravel from Lot 1 Goomalling-Toodyay Road. The original license was granted in November 2014 for a term of 10 years over an area of 6 ha.

This application seeks approval for the extraction of an extra 10 ha over a further 10 years, as shown in the site plan, figures 2 and 4.

Please see the table below for a summary of the proposal.

Subject	Description	
Basic Raw Material	Gravel	
Term of Approval	10 years	
Hours of Operation	6.30am – 5.30pm, Monday to Saturday (excluding public holidays)	
Operator	Vernice Pty Ltd	
Volume Extracted	34,000 Tons/year	
Traffic Movements	8 - 12 truckloads per day varying from 12T to 50T.	
Site Preparation	Clearing Permit has been applied for the removal of vegetation.	
Depth of Extraction	Maximum depth 2m.	
Extraction Methods	Excavators and Front-End Loaders will be used to extract the topsoil and	
	gravel. Topsoil will be loaded into an Articulated Dump Truck to be moved to	
	a stockpile onsite, and gravel will be either loaded straight into trucks as raw	
	material or be placed in the screener or crushers for the creation of other	
	raw materials.	
Access	The current access from Forest Road will be used to enter the property. All	
	existing internal site access tracks will be used by trucks and vehicles to	
	enter the excavation area.	
Structures	The current dwelling is located onsite and has not moved. A site office is	
	onsite with one other storage container. These are shown on the map.	
Rehabilitation	At the conclusion of extraction, the site will be rehabilitated with a gently	
	contoured depression with a cover of pasture species that will visually	
	conform with the general rural landscape. Native trees will also be planted	
	and the land will be returned to a suitable state for grazing.	

The extraction of gravel has been occurring since 2015, when the original license was granted. Vernice has demonstrated that the operations has had minimal impact on the environment or adjacent properties.

Anticipated direct impacts of extractive industry on the existing natural environment are minor. Approximately 55% of the proposed area is covered in bush land. Once the gravel is extracted Vernice plan to replant native scrub and trees on the same area that was cleared. Given the



elevation within the landscape of the area proposed for exaction up to a maximum of 2 metre depth, groundwater is not anticipated to be intercepted and the ability to retain all surface runoff within the pit area, there are no expected adverse impacts of future exaction on natural drainage and groundwater systems in the area.

In accordance with the Shire of Toodyay requirements this report provides additional information to that contained in accompanying application forms, including details relating to Works and Excavation, Risk Management and, Rehabilitation and Decommissioning of site operations.

2. Introduction

This application seeks approval for the extension of the area being extracted at Lot 1 Goomalling-Toodyay Road and to extend the term of the extractive industry permit for a further 10 years.

The land was purchased by Vernice Pty Ltd in 2008. The property currently has one pit in operation, a gravel pit. The new pit will also be a gravel pit with the rest of the property to remain untouched and to continue to be used for grazing and cropping.

The demand for gravel materials is increasing in and around the Shire of Toodyay and to meet demand, Vernice will require to extract material from a greater area than the originally approved area.

2.1. Approval History

The extractive license for Lot 1 Goomalling-Toodyay Road was first granted and issued by the Shire in February 2015. The license is due to expire February 2025. There is still a high demand for gravel material for the development of government roads and Vernice will require a larger area to extract to meet the current and growing demands for this resource.

2.2. Location

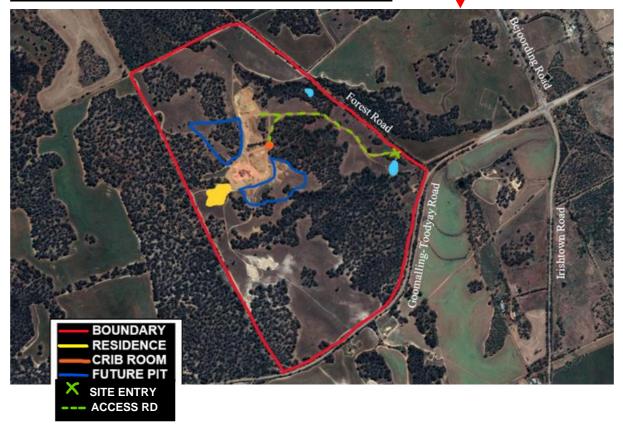
The subject land represents a portion of Avon Location 1954, being Lot 1 on diagram 77036 Certificate Title, Volume 1581 Folio 1. Lot 1 comprises of an area of 151.8 ha on the Northern side of Toodyay - Goomalling Road and West of Goomalling-Toodyay Road in the Eastern portion of the Shire of Toodyay, approximately 14 km from Toodyay town site, (Figure 1).



Figure 1 – Location of Clover Downs Pit and Proximity to Neighbors (610m).



Figure 2 – Map of Clover Downs with Future Pit Extensions





3. Site Description

3.1. Topography and Landform

The land is situated in the Eastern portion of the Shire of Toodyay, the boundary is near both the Shire of Goomalling and the shire of Northam. A visual understanding of the existing environment can be evaluated through reference to Figure 1, 2 and 3 and Site photographs in Appendix B. The property currently has a gravel pit that is active.

The property ranges in elevation from a high point in the region of 320 metres AHD along the Western boundary within an area of remnant vegetation due West and upslope from the existing residence to a low point in a region of 254 metres AHD in the Eastern corner at the intersections of Forest and Goomalling-Toodyay Roads. Drainage and catchment details are provided within section '3.3'. The property has a gentle sloping Easterly aspect.

Figure 4 further illustrates the Eastern side of the property as part of the 'Ewarts' soil landscape system. The higher land gently sloping terrain to the West forms part of the 'Yalanbee' soil landscape system. These systems are described below;

Ewarts - "Hill slopes (2 - 10%) containing predominantly sand and loamy sand over yellowish clay soils with some gravel ridges and some heavier soils".

Yalanbee -"Undulating Darling Range Plateau with long, smooth slopes (1 - 8%) containing buckshot gravel".

There is a degree of variability as with all soil - landscape systems. The Yalanbee system, which includes the proposed extraction area, is also known to contain areas of yellow gravelly loamy sands, pale sand over gravel, deep pale sand and deep yellow sand in addition to the dominant 'buckshot gravel' soils.

3.2. Vegetation, Flora, and Fauna

The characteristic vegetation cover within both the Yalanbee and Ewarts soil - landscape systems in this portion of the Shire of Toodyay is reported by Beard (1979) to be a medium woodland dominated by Wandoo (Eucalyptus Wandoo).

Subdominant trees include Eucalyptus Eremophila and Allocasuarina Huegeliana.

Understory shrubs include, Acacia JMicrobotrya, Allocasuarina Campestris, Hakea Lissocarpha, Melaleuca Hamulosa, Acacia Pulchella, Bossiaea Preissii, Calytrix sp. aff Fraseri, Daviesia Nudiflora, Gastrolobium Plicatile, Grevillea Paniculata, Hypocalymma Angustifolium, Operculada Vagainata and Pimelea Argentea. (Source: - Department of Agriculture and Food - via Shared Land Information Platform).

3.3. Hydrology



There are no significant watercourses or features that exist on the proposed site. There are also no Public Drinking Water Source Areas (PDWSA's) located on or surrounding the property. There are two dams on the property. They are located on the eastern side of the property; however, the current extraction area and proposed extraction areas are located away from the dams and will have no impact on the area or dams.

3.4. Surrounding Land Use

The properties that surround Lot 1 Goomalling-Toodyay Road are predominantly wheat and sheep farming. The closest residence is 1km away from the extraction area.

3.5. Existing Structures and Heritage

There is a dwelling that is in close proximity from the extraction area on the western side.

According to the Department of Planning, Lands and Heritage Plan WA software system, there are no Aboriginal or Historic heritage sites or places on the property. There are also no Aboriginal Lands Trust Estate on the property.

Leaend Department of Planni Lands and Heritage Soil Landscape Mapping -Western Australia attributed b WA Soil Group (DPIRD-076) 290 Deep sandy grave 2 metre contours (DPIRD-072) 10 metre contours (DPIRD-073) 280 260 258 270 2⁷⁰ 274 15.13 m 264 any output derived from that data. 0.4 K Date produced: 29-Aug-2022

Figure 3 - Soil Landscape Map (Appendix H)



EXIG1)NS PIT Area: 60932,36 n* (6.0932 Ha) Periaster: 1365,979 Dark Area (Scrub) *
Clearing Needed - 2.5ha DATUN FROM PTH196 (E. NI AND UB16 (Z) CONTOUR INTERVAL im DW 88 1 WARCH 2022 SURVEY DYNAMICS PTY LTD 355 GREAT EASTERN HIGHWAY REDCLIFFE WA6104 Hor Datum Vert Datum MGA94 ZONE 50 AHD rawing Titla LOT 1 FORREST ROAD NUNILE SHIRE OF TOODYAY DRONE FLYGVER 1 MARCH 2022

Figure 4 - Surveyed Map with Future Pit - Extension A



Extension Area A

Figure 5 - Map with Future Pit - Extension A and B

- CURRENT PIT (6 ha)
- **PROPOSED PIT EXTENSIONS** (A = 4.5 ha, B = 5.4 ha)
- CLEARING REQUIRED (3.6 ha)



4. Works and Excavation of site

4.1. Excavation

The proposed extractive industry operation on Lot 1 Goomalling-Toodyay Road seeks to meet continuing market demand for gravel material for building and construction purposes. The pit extension operation is proposed to occur within the property totaling approximately 10 hectares and anticipated to continue for approximately 10 years.

Gravel will be the excavation product to be used for road making purposes and/or for property access ways.

4.1.1. Excavation Methods

The designated areas are to be excavated using a bulldozer and or a front-end loader. There will be no use of explosives and minimal (3.6 ha) clearing of native vegetation. Specific portions for excavation within the designated area will be selected based on test hole inspections.

The topsoil will be removed to approximately 0.5 m depth and stored onsite for future rehabilitation. Excavated material will then be sieved using onsite machinery and subsequently loaded onto road trucks of various configurations for transport to purchasers.

The major items of equipment that will be used within the property are;

- 972K Cat Loader
- 470 WA-5H Loader
- Screening Plants
- D9R Dozer
- Road trucks of various configurations
- · Water Truck for dust retention as required

The proposed hours of operation for the site are;

• Monday to Saturday 6.30 am - 5.30 pm (excluding Public Holidays).

4.1.2. Depth and Extent of Excavation

The proposed extraction area occurs in close proximity within the current extraction area. The area is approximately 10 ha and the average maximum depth of excavation is proposed to be 2 m.

Gravel Excavation.

Ultimate Excavation Area	10 ha
Average maximum depth	2 m
Total volume of material ultimately removed	200,000 m3
Total amount in Tons	340,000 Tons
Anticipated average rate of extraction	34.000 Tons/v



4.2. Stages and Timing

Areas of excavation and timing of will be dictated by user requirements. However, based on Vernice Pty Ltd's experience and current business planning, the anticipated average rate of extraction will be 340,000 tons of gravel over the next 10 years. The clearing of vegetation will occur progressively, as and when required.

4.3. Overburden and Topsoil Removal

Apart from topsoil, no overburden material requires removal or stockpiling. Topsoil will be removed to approximately 0.5 m depth using a bulldozer and loader and stored on-site for future rehabilitation. Stockpiled topsoil will be positioned in several localized, currently cleared, areas near the excavations. The stockpiles will be stored within the current extraction area.

The ultimate quantity of stockpiled topsoil to be removed is estimated to reach 50,000 Tons, however, not all this amount will need to be stockpiled as it will be progressively used for site rehabilitation, as needed. Rehabilitation back to pasture will occur methodically and recurrently.

4.4. Vegetation Removal

The area will have trees and minor scrub that will need to be cleared. The area has sheep grazing through the trees, so scrub is very minimal. The timber and scrub will be removed and stored onsite. The cleared area will have native trees and scrub replanted once the gravel is removed. An application for clearing the area has been submitted to the Department of Water and Environmental Regulation.

4.5. Site Access and Public Safety

Site access to Lot 1 Goomalling- Toodyay Road is via Forest Road, (see Figure 2). This route is primary and the shortest access point to the existing residence. Direct access by the public to the excavation areas out of operational hours will be prevented by a padlocked steel gate. Appropriate signage will be provided and secured at the gate to deter unauthorized entry and maintain public safety. All visitors must call up via UHF on appropriate channel, noted at the gate via the sign. All new visitors must report to the site office/site manager to sign in and to sign the site induction.

4.6. Truck Movements

On average, there will be an estimated 8 - 12 trucks leaving the proposed site each day, with a load size from 12 and 50 T. The size of the trucks and loads will vary from day to day, due to user demand for the site products.



Truck configurations are as follows;

- Prime Movers with single and double side tippers.
- 6 Wheel Tippers.

Vehicles will travel either South-West in the direction of Toodyay along the Main Roads Western Australia (MRWA) controlled Goomalling - Toodyay Road or North-East, on the same road, turning right onto Buckland Road (and it Bejoording Rd extension) in the direction of Northam.

As a result, vehicle movements from the subject land will be utilizing existing recognized heavy vehicle routes to and from CBH Grain Receival Centre's rather than local traffic routes.

Estimated;

40% Direction - Toodyay.

60% Direction - Northam.

4.7. Building and Site Facilities

Site facilities consist of a site supervisor's office and machinery storage yard which is located near the entry of the current excavation site.

The existing dwelling and associated sheds are located on the Western side of the current excavation area. The dwelling is currently tenanted, which will serve as the caretaker's residence. This will also serve as an additional measure of security against all, out-of-hours, unauthorized access to the property.

Rainwater tanks are located at the existing residence, with a bore and tank located near the entrance point from Forest Road (see Figure 2).

There are 2 dams located on the eastern side near Forest Road. These can be seen on the map. One is south of the entrance point, the other is north on the entrance point. These dams were constructed to capture the water run off from the pit and the access road.

Above-ground power supplies the dwelling from Goomalling - Toodyay Road and terminates at the residence. Neither power, nor telephone cables are threatened by the proposed activities within the property.

4.8. Drainage Conditions

Lot 1 is well-drained due to permeable, predominantly gravelly and sandy soil types with gentle slopes (Soil Landscape Map - see Figure 3). Surface contours (2 m interval) are shown in an overlay of an aerial image (Figures 4 and 5) from the most recent survey completed in March 2022.

Lot 1 forms part of the catchment to Wongamine Brook which forms part of the Avon River



Catchment. A seasonally active un-named watercourse drains through the Northern portion of the property, crossing beneath Forest Road heading in and Eastwards direction to meet Wongamine Brook, approximately 2 kms. Wongamine Brook flows (when active) in a South- East direction to the Avon River near Northam approximately 18 kms away.

There are four (4) localised drainage gullies which carry runoff from the slopes below the upland area where the extended excavation is planned. These drainage pathways are irregular watercourses only active for short periods after specific rain falls and dissipate within the lower slopes rather than into the tributary leading to Wongamine Brook. If any runoff is generated within the excavation area, it will be contained as a result of a minimum 1 m depth at the lower end of the excavation which will provide an effective bund preventing any overflow into the near-by irregular watercourse/gully separating the proposed excavation areas.

Additional to the extraction area, 2 dams have been constructed to contain the water runoff. The northern dam captures the run-off from the pit and accumulates in the dam before hitting the road causing erosion. The southern dam minimizes the erosion on the property and captures the run-off from the access road. These dams are also beneficial for fire safety and for the stock grazing on the property currently and also for future use.

4.9. Existing Vegetation and Protection Measures

The nature of the existing vegetation is outlined in the previous section and does not require any specific protection measures above and beyond standard land management practices associated with the current framing operation. The remaining area of 135.8ha will continue to be used for grazing and cropping. The clearing of vegetation (3.6 ha of 10 ha) will be cleared progressively, as and when required.

4.10. Visual Impacts

As illustrated in figures 2 and 3, the proposed excavation area will be visible from Forest Road due to the topography of the land. The extraction area can only be seen when travelling south along Forest Road. The extraction area cannot be seen from the main road, Goomalling-Toodyay Road. Roadside vegetation screens the visibility, to the pit from the road, slightly. Given the visual impact is low and minor, no specific visual screening measures are proposed to be undertaken.

5. Management Plans

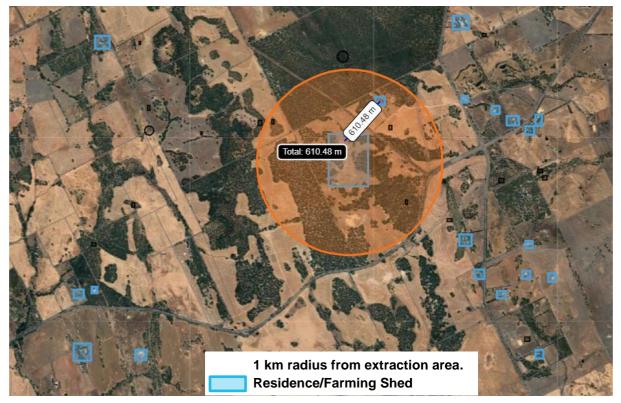
5.1. Dust Management

Figure 6 provides and aerial image for the subject land with the surrounding residences



and farming quarters highlighted.

Figure 6 – Surrounding Residences to Proposed Extraction Area.



Statement and Planning Policy 2.4 (Basic Raw Materials) applies to the Shire of Toodyay and among other effects, requires consideration of the impact of residences located within the 1000 m (1km) of the operations area.

Except for the residence owned by Vernice Pty Ltd, only one (1) residence occurs within the 1000 m (1 km) operations area. The residence is situated approximately 610 m northeast on the opposite (Eastern) side of Forest Road from the closest point of the current and proposed operations area. Within that separation distance there are several stands of remnant vegetation that will not only screen visually but will also reduce the potential of dust migration.

Notwithstanding just the separation distances, the potential for dust to be generated within the operations area, but not limited to, will be addressed Vernice Pty Ltd as follows;

- From experience with the operations on existing site, dust generation during excavation and loading is not significant due to the course sizes of gravel which are not conducive to their transport by wind.
- In relation to onsite safety, all dust emissions from excavation and loading will be controlled in accordance with Occupation Health and Safety Regulations.
- As a contingency measure, if dust from the operations became a concern, site
 watering would commence with water readily available from on-site sources e.g.
 dams.



5.2. Water Management – WQPN Recommendations

Site drainage contours are discussed in section 4.10 Drainage Conditions. Due to the permeability of the soils, the ability to contain any 'in-pit' surface runoff and the distance from seasonal watercourses, there is no significant risk of stream sedimentation or other adverse impacts of extraction activities on natural drainage systems. Water will drain into the existing pit, which have areas that will catch and hold water at various points. If this were to fail, the dams will catch water run-off and sedimentation on the property. Sediments that may come out of the pit will be contained on the property in the northern dam.

5.2.1. Water Quality Contamination Risks

<u>Water Quality Protection Note No.15</u> advises, Basic Raw Material (BRM) operators, how to limit impacts on the environment and water resources. Vernice Pty Ltd will adopt all appropriate and relevant recommendations in this note. The below table is a risk assessment of the water contamination risks identified by WPQS.

Description of Risk	Risk	Comment/
Description of Nisk	Level	Vernice Controls
Dramatic changes in hydrological regimes	LOW	There will be no impact on ground
such as groundwater levels, flooding and		water levels, flooding or changes
waterway channel migration – sometimes		to waterways as there are no
well beyond the extraction site or many		surface water features near the
years later.		extraction area.
Exposure of the groundwater table,	LOW	The extraction area will not
leading to evaporation and providing a		interact with the groundwater.
pathway for contamination to enter the		
aquifer.		
Possible exposure of acid sulfate soils.	LOW	The area does not have acidic
		sulphate soils, therefore is not a
		risk.
Erosion, with the eroded soil running off	LOW	The dams have been constructed
into surface water sources, reducing water		to stop the erosion on Forest Road
clarity, transporting other contaminants,		and other areas on the property.
clogging infrastructure such as culverts,		These dams stop the
pipes and drains, degrading waterways		contamination of other water
and wetlands and their ecological values,		courses in the area.
and acting as a 'mask' to drinking water		
treatment processes.		



Hydrocarbon and chemical pollution from	LOW	Plant will be refueled on site by a
fuel, oil and chemical leaks and spills,		mobile service truck and tanker.
affecting surface water and groundwater		Spill kits will be located on the
quality.		service truck in case of any
		spillage. Operators will adhere to
		all company policies and safe
		work procedures.
		The operator will ensure that best
		practice refuelling occurs
		and a spill kit is in situ during any
		refuelling. Plant will be well
		maintained to avoid any potential
		leaks.
Pathogen spread from septic tanks and	LOW	The operations do not require the
staff amenities, posing a risk to water		use of septic tanks or permanent
quality and public health.		staff amenities. There is a porta
		loo on site that will be emptied, as
		per manufactures instructions, on
		a regular basis.

5.2.2. WQPN Recommendations

Consideration	Recommendations	Comment
from WQPN.		
Location to	Several recommendations are provided from	N/A - There are no Public
Public Drinking	the WQPN.	Drinking Water Sources
water Sources.		located near the proposed pit
		extension and current pit.
Clearing control	Assess BRM activities within clearing control	N/A - There are no clearing
catchments	catchments for potential salinity impacts.	control catchments near the
(Country Areas		site.
Water Supply Act		
1947).		
Near waterways	BRM extraction should be above the 1 in 100	N/A – The proposed extraction
	(1%) annual exceedance probability flood level.	area is not located near any
	avoid areas prone to seasonal inundation or	waterways.
	waterlogging.	
	Maintain adequate buffers between waterways	
	and their foreshore areas.	
BRM extraction	specific information for in-stream mining	N/A – there are no riverbeds or
within waterways	proposals that should apply in addition to the	flood plains in proximity to the
(in-stream	other recommendations in the note.	extraction site.



mining)		
Wetlands	separation distances or special measures you	N/A – There are no wetlands
	may need to apply	near or on the extraction site.
Groundwater	Assess acid sulfate soil risks and mitigate if	N/A – the site does not have
	required. WQPN also gives recommendations	acid sulfate soils and no
	on dewatering.	dewatering is required.
Landscape	Ideally, select land that is gently sloping	Please refer to section 4.8.
Zanaosapo	(between 1 in 20 and 1 in 50) so runoff and	Tricado refer to occiden men
	wastes can be managed, but avoid erosion.	
	Avoid rocky and steep slopes, and land prone	
	to erosion.	
Other land uses	Separation distances between BRM extraction	There are no other land uses
Officer latin uses	and sensitive land uses.	
		outside of the proposed in this
	Avoid infrastructure and maintain adequate	application.
	separation distances to ensure its operation is	
Occasionalism	not compromised.	The state of the s
Construction	Use existing roads and tracks to access the site	The existing access road will
	where possible.	be used to enter the proposed
	Restrict access routes to the excavation area to	pit extension areas. A traffic
	the minimum necessary and select these for the	management plan is in place
	least impact.	for all visitors and operators to
	Construct roads in accordance with WQPN no.	abide by and to reduce the risk
	44: Roads near sensitive water resources.	of collision and impact on the
		environment.
Operation	Stage extraction so that at any one time the	There will be a plan in place
Management	active area of extraction is in accordance with	for the extraction of materials.
	the relevant approvals.	The plan will comply with all
		relevant approvals.
Solid Waste	Any wastes you cannot reuse or recycle in the	All waste that is generated on
Solid Waste	Any wastes you cannot reuse or recycle in the operation should be stored appropriately and	
Solid Waste		All waste that is generated on
Solid Waste	operation should be stored appropriately and	All waste that is generated on site will be securely stored and
Solid Waste Stormwater	operation should be stored appropriately and	All waste that is generated on site will be securely stored and taken to the nearest waste
	operation should be stored appropriately and disposed of at an approved facility offsite.	All waste that is generated on site will be securely stored and taken to the nearest waste facility.
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas such as roofs, clean paved areas and areas	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed and addressed according to
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas such as roofs, clean paved areas and areas outside of the work site away from operational	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed and addressed according to the WPQS recommendations
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas such as roofs, clean paved areas and areas outside of the work site away from operational areas.	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed and addressed according to the WPQS recommendations
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas such as roofs, clean paved areas and areas outside of the work site away from operational areas. Stormwater that originates from outside or	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed and addressed according to the WPQS recommendations
	operation should be stored appropriately and disposed of at an approved facility offsite. You should direct stormwater from 'clean' areas such as roofs, clean paved areas and areas outside of the work site away from operational areas. Stormwater that originates from outside or adjacent to the works area needs to be diverted	All waste that is generated on site will be securely stored and taken to the nearest waste facility. Stormwater will be managed and addressed according to the WPQS recommendations



You should manage stormwater flowing from disturbed areas, including areas for stockpiles, to prevent turbidity.

The above table shows that Vernice's practices for the pit extension will be managed with WPQS Water Management recommendations and guidelines.

5.3. Noise Management

On-site Operations

No significant impact of noise from excavation activity on nearby residents is expected, taking into account the following;

- There will be no blasting activities associated with excavation.
- With consideration of the requirements of Statement of Planning policy 'k' discussed earlier, all but one nearby residence is more than 1000m (1 km) away and,
- The single residence is 610m away with intervening remnant vegetation.

Occupational noise associated with the extraction processes fall under the following;

- The Mines safety and Inspections Act 1994 and Regulations 1995
- The Environmental Protection (Noise) Regulations 1997

These Regulations require that sensitive premises, including dwellings in non-industrial areas, are not subjected to noise levels exceeding 45 dBA for more than 10% of the time, 55 dBA for more than 1% of the time and never exceeding 65 dBA during normal working hours. Vernice will comply with these noise limits. All traffic on public roads are exempt from The Environmental Protection (Noise) Regulations 1997.

5.4. Fire Management

Vernice will ensure the risk of bushfires and mechanical fires are reduced and, where possible, eliminated. A risk assessment has been carried out for several risks, including bushfires. This is visible in the Clover Down's Site Emergency Plan (Appendix E) and in the Site Bushfire Management Plan (Appendix F).

5.5. Rehabilitation Management

Vernice will hold off on rehabilitating the original and existing pit, due to the pit being used to store material. This means that rehabilitation of the current pit will commence once the Extractive Industries License Application –Gravel Pit Extension 2022

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proposed extensions have been extracted completely. This a decision based on environmental disturbance and noise/dust management. The storing of the topsoil in the bottom of the current extracted pit, aims to not disturb the topsoil and ground that is not intended to be excavated. It will also aim to reduce the amount of noise and dust pollution.

Once there is enough floor area in the new extension pits (Extensions A and B) to store the topsoil and other materials, Vernice will commence the rehabilitation of the completed extracted areas.

5.5.1. Objectives

Given the nature of surrounding rural environment, the modest depth of excavation and the intended continued use of much of the property as low intensity grazing land, the objective of future rehabilitation will be to form a gently contoured depression with a cover of pasture species that will visually conform with the general rural landscape in this part of the Shire. Vernice will also replant native plants and trees to the area in which was cleared, with mainly Wandoo Eucalyptus and scrub mentioned in section 4.11 Existing Site.

5.5.2. Site Restoration and Reinstatement

A degree of flexibility is required in relation to the staging and timing of both excavation and rehabilitation activities to meet variations in market demand for gravel products. It is proposed that the allocation of areas for rehabilitation will be considered annually, with re-establishment of a pastured landscaped occurring progressively during the licensed excavation period. This area will also be rehabilitated with Wandoo Eucalyptus and other native scrub as mentioned in section 4.11.

5.5.3. Topsoil Replacement and Re-vegetation

Topsoil is to be removed, as required, to approximately 0.5 metre depth using a bulldozer and stored in an area, to the side of the extraction area or in the previous extracted area, to be spread over the floor and sides once gravel has been extracted. The original extracted area will need to be left open for material storage. Reclaiming of the original area will start once there is enough room in the new area.

In areas where excavation is completed, batters will be re-contoured to achieve stable slopes and the backfill used to elevate the base of the pit. Topsoil will then be re-spread and leveled to approximately 200mm depth using front-end loaders and bulldozers prior to seeding with a mix of perennial and annual pasture species, as well as legumes such as clover and serradella.

The inclusion of perennials is to allow for eventual year-round grazing, the inclusion of legumes will aid and add nitrogen to the soil and thereby encourage the growth of grasses and pasture.

Re-establishment of pasture within rehabilitation areas will reconstitute, as far as possible, the



pre-excavation rural landscape. Advice in relation to pasture establishment and maintenance will be sought from the Department of Agriculture and Food and the Toodyay Community Landcare Support Officer, prior to initiating site rehabilitation.

Where natural bush is located, we intend to re-plant native vegetation once the area is ready to be rehabilitated.

5.5.4. Weed Management

Vernice will ensure the success of the rehabilitation and continuation of the grazing operations on site are not inhibited through weed management and the avoidance of contamination to soils and vegetation. The following will be implemented to ensure the management of weeds is effective on the excavation area and the rest of the property.

- No other material that contains weeds or weed particles will be brough to site.
- All vehicles entering site will be kept to tracks. All operational equipment will also be kept to the excavation area and site access established roads.
- All equipment entering site will be required to undergo a weed and seed prior to entering site.

5.5.5. Removal of Facilities and Site Clean Up

All temporary buildings and machinery will be removed from site upon completion of excavation and rehabilitation.

6. Statutory Framework

6.1. Shire of Toodyay Extractive Industry Local Law

The Shire of Toodyay Extractive Industry Local Law is adopted under the Local Government Act and establishes the licensing requirements for extractive industries and conditions of operation and information that is required to be supplied with an application.

The contents and appendices supplied with the application addresses sections 2.3 and 4.3 of the Local Law.

Section 6.1 states 'Subject to any license conditions imposed by the local government, a person shall not, without the written approval of the local government, excavate within - (a) 50 metres of the boundary of any land on which the excavation site is located; (b) 50 metres of any land affected by a registered grant of easement; (c) 50 metres of any thoroughfare; or (d) 100 metres of any watercourse.'



The extraction area and extraction operations does not and will not occur within 50m of the property boundary.

6.2. Shire of Toodyay Local Planning Strategy

Section 6.7 and 7.7 of the Local Planning Scheme explains the role in which extractive industries, mining and basic raw materials plays a part in the Shire of Toodyay. It also explains the strategies in which the Shire of Toodyay have set out regarding basic raw materials.

The table below explains the shire's strategies and strategic directions and the relevance and applicability to this application.

Strategic Directions and Strategies	Comment
Facilitate the extraction of basic raw materials,	This application will enable the continuation of the
subject to appropriate precautions to minimise	supply of quality basic raw materials. Through the
any adverse impact on adjacent property, or on	implementation of management plans, the
the natural environmental resources.	operation will have appropriate precautions and
	controls to minimize off-site impacts to both the
	environment and neighbors.
Encourage the definition of suitable buffers within	The operations management plans will reduce
LPS5 to limit the impact on adjacent property,	the impact of off-site impacts and will align with
and to avoid encroachment of sensitive	regulations, recommendations and guidelines.
development into areas subject to reduced air	The neighboring properties will be encouraged to
quality, noise or risk.	maintain communication to site managers and
	directors to ensure the impacts are kept to a
	minimum.
Identify and protect basic raw materials including	The extraction of basic raw materials on this site
gravel and sand resources from inappropriate	has been occurring over the past 7 years.
developments that would prevent their future use.	
Identify natural resource priority areas and	This is an action to be completed in the Local
significant geological supplies and buffers to	Planning Scheme preparation.
avoid encroachment of sensitive development	
into areas subject to reduced air quality, noise or	
other risks.	
Establish appropriate controls for extractive	The extraction extension under this application
industries to minimise impacts on the	has been reviewed against guidance provided by
environmental and local amenity, including roads.	DWER, EPA and the Shire of Toodyay through
	their Strategy, Scheme, Local Law and Policies.

6.3. Shire of Toodyay Local Planning Scheme No 4

The Shire of Toodyay Local Planning Scheme No 4 (LPS4) is the statutory planning document that



provides controls for land uses and establishes the standards for development in the local government area.

The extraction site, is zoned 'Rural.' Industry – Extractive is a 'D" use which means that the use is not permitted unless the local government has exercised its discretion by granting development approval. LPS4 establishes objectives for the Rural zone which are to be considered. The table below outlines the objectives and comments on how Vernice addresses them.

Objectives	Comments
i) Protect broad-scale agriculture from unplanned	The extraction of basic raw materials on site has
breakdown of rural land.	had no impact on the agricultural operations on
	the property. The objective of the rehabilitation of
	the site is to return to sheep grazing land as it
	was previous to extraction operations.
ii) Subject to i. above,	
 provide for tourist related activities related activities, including farm stay, bed and breakfast and holiday accommodation. provide for a range of rural related uses such as intensive agriculture, aquaculture, rural pursuits and; 	N/A
iii) Ensure the protection of and conservation of	The site requires some clearing of vegetation. A
native vegetation.	clearing permit application has been submitted to
	the Department of Water and Environmental
	Regulation. Vernice will ensure all native
	vegetation will be cleared as per requirements
	from DWER.
	1

6.4. State Planning Policies (SPP)

Vernice Pty Ltd acknowledge the following State Planning Policies are relevant and will ensure each of the policies' objectives are adhered to.

6.4.1. SPP 2 – Environment and Natural Resources Policy

6.4.1.1. SPP 2.4 – Basic Raw Materials

The extraction of the basic raw material will only be supplied to local government for the development of roads. Local and surrounding shires, as well as Main Roads will be the only clients who receive the Extractive Industries License Application –Gravel Pit Extension 2022 Page 22 of 30



materials from the applications operation. Therefore, under the exemption '4.2 d) extraction of BRM for public works as deemed necessary by local governments under the Local Government Act 1995' the SPP 2.4 does not apply to this application.

6.4.1.2. <u>2.5 Rural Planning</u>

The below table outlines the WAPC policy for basic raw materials outside of the Perth and Peel planning region. Vernice have commented against these policy items to ensure the extraction operations are inline with the WAPC's requirements and policies.

Stra	ntegic Directions and Strategies	Comment
a)	Significant Geological Supplies and their buffers are	The extraction area will only be used
	not to be developed for other purposes until the	for the extraction and production of
	resource is extracted, or unless development is	gravel products for local government.
	compatible with the future extraction of the resource	The area will not be developed for
		any other purposes.
b)	Significant Geological Supplies and significant basic	Local Planning Strategies outline the
	raw material resources, and an indicative separation	basic raw material resource
	distance or buffer, should be identified in sub-regional	guidelines.
	and/or local planning strategies;	
c)	region and local planning schemes should identify	
	Significant Geological Supplies and significant basic	
	raw material resources, and include provisions for	
	their protection, access and use;	
d)	basic raw material resources and sites should be	Local Planning Scheme 4 (LPS4) has
	identified in local planning strategies and schemes as	been addressed in section 6.3.
	required;	
e)	region and local planning schemes should not	
	generally prohibit the extraction of basic raw material	
	resources;	
f)	sequential land use planning is encouraged whereby	Once extraction is completed and the
	extraction and appropriate rehabilitation can take	land has been rehabilitated
	place on a programmed basis in advance of longer-	successfully, the land will return to
	term use and development;	farming with crops and sheep grazing.
		This is explained in section 5.5.
g)	sensitive zones and/or land uses may be approved	N/A – there are no
	where it can be demonstrated they will not limit the	sensitive zones or land
	existing or potential extraction of basic raw materials	uses on or near the
		property.



h)	where a basic raw material resource is located with	The extraction area does require
	native vegetation or significant biodiversity values,	clearing of native vegetation. A
	extraction of the resource may require referral under	clearing application has been
	Part IV or Part V of the Environmental Protection Act	submitted to the Department of Water
	1986. Environmental regulation of the proposal may	and Environmental Regulation for the
	require vegetation retention and/or protection of other	extension areas.
	environmental assets;	
i)	planning decision-makers are to have due regard to	Environmental impacts have been
	advice from environmental agencies and consider	considered, including the impacts on
	potential impacts on fragmentation and connectivity	fragmentation and connectivity of
	of remnant vegetation; and	remnant vegetation. The areas
		required for clearing will not involve
		the fragmentation of vegetation.
j)	where a basic raw material resource is located in a	N/A – the extraction area
	public drinking water source area, extraction of the	and property is not
	resource may be subject to achieving separation	located near or in a
	distances to the groundwater table to protect water	public drinking water
	quality. Separation distances from water supply	source.
	infrastructure, and other management measures to	
	protect water quality, should be applied in planning	
	decision-making	
1		1

6.4.2. SPP 3 – Urban Growth and Settlement

6.4.2.1. SPP 3.7 – Planning in Bushfire Prone Areas

A risk assessment of bushfires has been carried out for Clover Down's in Appendix D - Site Emergency Plan which covers the below objectives of the SPP 3.7.

SPP 3.7 Requirements and Objectives	Comments
Avoid any increase in the threat of bushfire to	There is no increased threat of bushfire on the
people, property and infrastructure. The	property with the extension of the current
preservation of life and the management of	extractive pit. With the proposed extraction area,
bushfire impact are paramount.	there will be a need for clearing of vegetation
	and topsoil which will reduce the amount of
	bushfire fuel in the area.
Reduce vulnerability to bushfire through the	The clearing of vegetation and stripping of
identification and consideration of bushfire risks	topsoil will be conducted on days with low wind
in decision-making at all stages of the planning	to ensure there is a low risk for bushfires.
and development process.	DEFES and other state emergency services
	websites will be checked to ensure it is safe



	conditions to complete the operations.
	The operations of the mine, screening and
	extracting will be conducted on bare land with
	no bush fire fuel around.
Ensure that higher order strategic planning	There are several management plans including
documents, strategic planning proposals,	a project management plan and a bushfire
subdivision and development applications take	management plan in place to ensure all
into account bushfire protection requirements	operators and visitors are aware of the operation
and include specified bushfire protection	plans, processes and risks. All general property
measures.	maintenance will be attended to for fire
	prevention, e.g. fire breaks cleared and
	maintained, gutters kept clear and fuel around
	operational and site areas are kept to a
	minimum.
Achieve an appropriate balance between	The bushfire management plan considers the
bushfire risk management measures and,	environmental concerns, biodiversity
biodiversity conservation values, environmental	management and the impacts of climate
protection and biodiversity management and	change.
landscape amenity, with consideration of the	
potential impacts of climate change.	

7. Conclusion

This application is seeking approval for the extension of the current gravel pit at Lot 1 Goomalling-Toodyay Road by 10 ha and the extension of the term for the extraction for a further 10 years. The extension of area and term will allow for the continuation of supply to local government for the upgrading and creation of quality and safer roads. The application meets all objectives in the Local Law, Shire of Toodyay Strategy, Rural zone of LPS4 and the environmental guidelines as explained in section 6. Vernice respectfully requests that a development approval is granted, and an extractive industry permit is issued to enable ongoing operations.

8. Appendices

APPENDIX A – APPLICATION FOR EXTRACTIVE INDUSTRIES LICENSE

APPENDIX B – SITE PHOTOGRAPHS



Photograph 1 – Bush land of proposed area.



Photograph 2 - Open Paddock on the edge of bush of proposed area.



Photograph 3 – Bush of the proposed area.



Photograph 4 - Entrance to Pit



Photograph 5 – Material Stockpiled



Photograph 6 – Material Stockpiled





Photograph 7 - Rock Material



Photograph 8 - Current Operating Pit



Photograph 9 - Current Operation of Pit with Screener/Crusher





Photograph 10 - Current Pit Floor with Stockpile



Photograph 11 - Current Pit Floor with Stockpiles



Photograph 12 - Site Office and Laydown Area



APPENDIX C - CURRENT LICENSE

APPENDIX D - SURVEYOR MAPS AND DAYTUM PEG

APPENDIX E - CLOVER DOWN'S SITE EMERGENCY PLAN



APPENDIX F - SITE BUSHFIRE MANAGEMENT PLAN

APPENDIX G - CLEARING PERMIT APPLICATION/PERMIT

APPENDIX H - SOIL LANDSCAPE MAP - PLAN WA

APPENDIX I - APPLICATION FOR DEVELOPMENT APPROVAL