

# PIPPINGARRA QUARRY - M45/258

## CLEARING PERMIT (PURPOSE PERMIT) APPLICATION 2023

### 1. PREVIOUS CLEARING PERMIT

North West Quarries held Clearing Permit (Purpose Permit) 7969/1 for the Pippingarra Quarry site from the 14<sup>th</sup> of April 2018 to 14<sup>th</sup> of April 2023. This Clearing Permit comprised of seven separate areas on the site within the following leases: M45/258, G45/47, G45/48 and G45/329 (formerly G45/55). The total area of clearing approved was 47.18 hectares.

Not all of the clearing activities approved in the previous permit were realized within the duration of the permit. As a result, this clearing application (2023) will cover four areas from the previous permit 7969/1 with slightly adjusted shapefiles to account for the areas cleared. Additionally, nine more independent areas will be included in this application.

The previous CPS 7969/1 documentation is provided as an attachment, as follows:

- Clearing Permit Approval – Covering Letter, Dated 22<sup>nd</sup> March 2018
- Clearing Permit 7969/1
- Clearing Permit 7969/1 Plan

### 2. CLEARING PERMIT APPLICATION 2023

North West Quarries have completed and attached Form NV-F01 as an application for a new purpose permit. This includes payment of the prescribed fee. Additional attachments and supporting documentation can be found in ATTACHMENTS.

### 3. MAPPING INFORMATION

North West Quarries have attached digital spatial data for the clearing permit application areas in the required ESRI Shapefile format Geocentric Datum of Australia GDA coordinate system (geographic latitude/longitude) and GDA 2020 datum. A map of the proposed clearing sites depicted by these shapefiles is also attached.

### 4. DESCRIPTION OF CLEARING AREAS

North West Quarries provide a brief summary of the clearing areas (68.75 hectares) below.

- **M45/258: Granite Quarry (20.64ha)**

An area of 20.64 hectares of the mining tenement has been proposed for the development of a granite quarry. This proposal was approved prior in purpose permit 7969/1. At present, the only clearing that has taken place at this site is along the perimeter and to a limited extent within the site itself. The entire area has been included in the this permit to account for any native vegetation regrowth. The granite quarry site is located adjacent Northern Quoll habitat within the neighboring FMG lease. The project was referred to the Environment Minister under the EPBC Act in 2012 and was

determine to be “not a controlled action”. The determination document is provided as an attachment. Clearing at this site will only occur in stages, as is necessary for mining development.

- **M45/258: Borrow Pit (25.93ha)**

A 25.93 hectare borrow pit is partially cleared at the site, after it was granted approval to clear in permit 7969/1. Borrow pit natural gravel materials are extracted as required and blended to form construction products. The borrow pit will continue to be cleared in stages, as is necessary for mining development, and will be rehabilitated progressively.

- **M45/258: Additional laydown hardstand Extension (16.5ha)**

A 15.69 hectare expansion to the existing historical footprint has been proposed in order to create adequate space for stockpiling of materials and storage of equipment. This extension would consist of 12 separate areas located around the existing mine pit and historical footprint, forming the additional laydown area.

- **M45/258: Camp Site (5.73ha)**

A 5.73 hectare permanent camp site is proposed, on the western side of the mining tenement. The site is partially cleared under the previous approval of permit 7969/1, however the full clearing has not yet been realised.

## 5. STANDARD INFORMATION REQUIRED

### Aerial Photographs

The ArcGIS Maxar Imagery (2021) represents the most accurate and updated aerial image for the site. North West Quarries do not have any current fly-over aerial photographs of the proposed clearing locations.

### Flora, Vegetation and Fauna Survey

North West Quarries engaged an experienced external consultant familiar with the region to undertake the initial and targeted flora survey at the site. The initial and targeted flora studies are contained within Appendix 3 of NWQ-PLN-10-MINE CLOSURE PLAN-06-211221. In summary, the Level 1 Vascular Flora and Vegetation survey identified a single specimen of Priority 1 plant species *Helitropium muticum* within G45/57 in an area not designated for development. Following the report’s recommendations, a targeted field survey was later undertaken, revealing a population of the species. The area of Priority 1 flora will remain undisturbed under the current proposal.

The conclusions of the report were that the species is locally widespread and is likely to occur in similar densities throughout the region due to the widespread supporting landform, soil and vegetation. Further, it was considered a disturbance opportunist at the site, and any developments are unlikely to have an impact on the population of the species.

The Level 1 Fauna and Habitat Assessment identified the presence of the Northern Quoll denning habitat in the neighbouring FMG lease. A targeted regional field survey was later undertaken to determine the proportional impact of our proposed granite quarry clearing on the species. The report concluded that the Northern Quoll population was widespread east of the mining lease, with extensive foraging habitat available. It was determined that the proposed granite quarry site represents less than 0.1% of the local foraging habitat available and the impact was considered low. Further, it was concluded that the granite quarry was unlikely to impact on species dispersal as all suitable habitat lies east of the mining lease.

Following the targeted field survey, the project was referred under the EPBC Act and was determined to be “not a controlled action”. The determination is provided as an attachment NWQ-PIPP-EPBC REFFERAL - NCA 2012\_6461.

### **Site Overview**

A comprehensive overview of the site is contained within the attached NWQ-PLN-10-MINE CLOSURE PLAN-06-211221. In summary, the mining disturbance at the site dates back to 1911 with a historic feldspar mine pit present within the mining tenement. Previous mining operations resulted in numerous waste dumps within the historical disturbance footprint that North West Quarries have been reprocessing since 2009.

In 2012, North West Quarries submitted an updated mining proposal for the site to expand from the reprocessing operations and recommence mining at the site. The new development areas proposed and approved included; a granite quarry, a borrow pit, a permanent camp site, a magazine site and associated roads and support infrastructure. Furthermore, after experiencing a down turn in sales and a period of care and maintenance a recommencement of mining proposal was submitted in 2019. The proposal including updated site plans is attached at NWQ-PIPP-RECOMENCEMENT OF MINING PROP – 2019.

Although the magazine size and associated roads have already been cleared, the process of clearing native vegetation to accommodate the granite quarry, borrow pit and expansion of the laydown site will be ongoing. This additional clearing will only take place as necessary to support the expansion of the quarry operations.

### **Regional Setting**

The tenement contains very little geographical relief with the exception of the historic pit and waste dumps. In contrast, the region to the east of the tenement is characterized by numerous granite outcrops separated by sandy/loam plains that support a population of the Northern Quoll.

### **Geology**

The borrow pit occurs as lateritic gravel interspersed with clay situated at surface. Below this, quarrying activities occur in a granite and pegmatite formation. Pegmatites are characterized by its large crystal size formed by the slow cooling of magma. The dominant granite is light coloured and fine-grained with biotite and smoky quartz. This formation is often cross cut with coarse pegmatitic veins often in the form of leucogranite or graphic granite - rich in feldspar and quartz, typically having a light-coloured appearance. Other pegmatitic veins contain abundant

biotite clasts and minor green alteration. There are no waste rock or tailings from North West Quarries operations.

### **Soils**

In previously disturbed areas the soils generally consist of waste materials (granite, quartz, sand and clays) originating from previous mining activity. In undisturbed areas the soils generally consist of coarse sand over loam, mixed with quartz stones.

### **Hydrology**

Within the mining and general purpose tenements very few drainage lines exist, with the exception of a minor water course adjacent the western boundary. The historic access road into the site (L45/230) crosses a creek approximately 5 kilometres from the site. The creek is heavily degraded from livestock grazing, erosion and introduced grass species. The historic feldspar pit retains water and precipitation proximal to this pit will flow into and fill this pit. The proposed clearing will have no major impact on water courses, wetlands, riparian vegetation, surface water or ground water.

### **Vegetation Degradation**

Both cattle and wild camels are present at the site and contribute to an increase in grazing pressure on native vegetation and degradation of fauna habitats. This pressure is likely to increase in areas of fragmented vegetation, such as that caused by the proposed haul road from the borrow pit to the granite quarry. At present this proposed haul road is merely an access track and the impact is negligible. A thorough risk assessment that includes the mitigation of risks associated with fragmented vegetation is detailed in the Mine Closure Plan.

In addition to degradation by livestock and other fauna, the site's vegetation has experienced a fire event within the past 8 years.

North West Quarries clearing permit areas will involve adequate clearing, topsoil stripping, stockpiling and stockpile management to ensure that viable seed storage is retained for later rehabilitation works. There is no dieback risk and weed control (introduction and spread) is managed at the site.

It is North West Quarries rehabilitation aim to improve upon the existing vegetation condition site-wide, through rehabilitation trials, progressive rehabilitation of the historical mining footprint and improved outcomes for the Priority 1 flora. Further details are located in the attached Mine Closure Plan.

### **Land Degradation**

The site is partly degraded from the historic mining operations spanning over a century. In particular, the waste dumps left by former operators were scattered around the historic pit and the wider surrounding footprint. North West Quarries have worked to reprocess these waste dumps into a useable construction product, in a zero-waste operation. The reprocessing works are approximately 80% completed. However, as the waste dumps are reclaimed, large open footprints are exposed. North West Quarries have contained the majority of operations to within this historic footprint, such as the; materials stockyard, processing areas, heavy vehicle parking, workshops, site offices and the camp.

At completion of the reprocessing work, North West Quarries will commence progressive rehabilitation of the historic footprint areas not in use. The rehabilitation will involve trials on alternative growth medium due to the lack of available topsoil from former mining operations at the site.

Additional land degradation has occurred across the site due to the pastoral disturbance that dates back prior to mining activities. North West Quarries aim to capture the numerous redundant pastoral tracks in the rehabilitation program. Post mining land use, the site will continue as pastoral use.

Impacts to land by North West Quarries will primarily occur at the granite quarry and borrow pit sites where the landforms will be permanently altered. The rehabilitation and risk assessments of these two areas is thoroughly detailed in the Mine Closure Plan. The potential for waterlogging, acidification, salinisation, deep subsoil compaction and erosion are considered low.

## **Environmental Management**

North West Quarries undertake environmental management at the site in accordance with the approved Mining Proposal and Mine Closure Plan, the Company Environmental Management Policy, the site Environmental Management Plan and the numerous Company Environmental Management Procedures. The approved documents are included as part of the Mine Closure Plan attached.

In summary, the clearing in development areas and stockpiling of topsoil is managed on site to ensure viable seed storage for rehabilitation works. Rehabilitation will be undertaken progressively at the site as operations progress. The historic mining footprint left by former operators will be a key focus for rehabilitation trials, utilising alternative growth medium, where required.

## **Correspondence**

A copy of the previous Clearing Permit CPS 7969/1 documentation is attached.

A copy of the determination under the EPBC Act is attached.

## **Clearing Principals**

Statements against the 10 principles for clearing of native vegetation under Schedule 5 of the EP Act are detailed below:

Native vegetation should not be cleared if:

### **A. *It comprises a high level of biological diversity.***

The survey of the study area identified 39 species of flora from 15 families and 25 genera. Of the 39 species, one represented a conservation significant taxon; *Helitropium muticum* (Priority 1). The targeted survey revealed a population of the species, predominantly in an area not proposed for any development, but widespread across the site and outside the tenement boundaries. It is believed it is likely to occur at similar densities through much of the region as the landform, soil and vegetation is widespread.

Three species of conservation significant vertebrate fauna were located in the field survey; an Australian Bustard (*Ardeotis australis*), a pair of Rainbow Bee-eaters (*Merops ornatus*) and Northern Quoll (*Dasyurus hallucatus*) scats and latrines. The targeted regional survey concluded that the development of the granite quarry area affects less than 0.1% of the Northern Quoll's local foraging habitat and is unlikely to affect dispersal of the species due to the unsuitable habitat west of the FMG lease (the North West Quarries tenements). The project was referred under the EPBC Act and determined to be "not a controlled action".

Large areas surrounding the study area are considered to comprise a similar level of biological diversity to the study area. Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

### **B. *It comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.***

The fauna habitats within the study area are mostly well represented elsewhere within the local area. The study area does not support habitat for the Northern Quoll. However, the proposed 18 hectare granite quarry lies within 2 kilometres of Northern Quoll denning and is deemed foraging habitat by SEWPaC's Northern Quoll Referral Guideline. The

guideline notes that projects which propose to remove greater than 5 hectares of known Northern Quoll foraging and dispersal habitat in areas not yet invaded by the cane toad, pose a high risk of significant impacts to the species.

North West Quarries engaged a consultant to undertake a targeted regional field survey, which determined the impact on the Northern Quoll population to be low.

However, the proposed granite quarry area still exceeded SEWPac's 5 hectare guideline, and as a result the project was referred under the EPBC Act. As above, the determination was "not a controlled action".

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**C. *It includes, or is necessary for the continued existence of, rare flora.***

One species of Priority flora was recorded during the survey; *Helitropium muticum* (Priority 1). A population of the flora was revealed in the target survey to be widespread. Refer to Principle A Statement above for further details.

No Threatened flora was recorded from the study area and no species of Threatened flora are considered likely to occur within the study area due to a lack of suitable habitat.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**D. *It comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.***

North West Quarries have reviewed the current Threatened Ecological Community (TEC) list, as published by DPaW and dated 6<sup>th</sup> October 2016, and no records of a TEC occur within a 50 km radius of the site, and none of the vegetation associations within the study area are considered to represent a TEC.

Further, review of the current Priority Ecological Communities (PEC) list, as published by DPaW and dated 30<sup>th</sup> June 2017, indicates no records of a PEC present.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**E. *It is significant as a remnant of native vegetation in an area that has been extensively cleared.***

Much of the native vegetation surrounding the site remains un-cleared and in a relatively natural state. The area comprises station leases with cattle and only basic associated infrastructure, such as tracks, roads, tanks, troughs and occasional holding and loading yards.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**F. *It is growing in, or in association with, an environment associated with a watercourse or wetland.***

There are minimal drainage lines at the site. One minor water course is present adjacent the western boundary of the site and will not be impacted by any of the development areas.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**G. *The clearing of the vegetation is likely to cause appreciable land degradation.***

Localised impacts to land by North West Quarries will primarily occur at the granite quarry and borrow pit sites where the landforms will be permanently altered. The risk assessments and rehabilitation of these two areas is thoroughly detailed in the Mine Closure Plan. The final landforms of these areas will comply with the approved Mine Closure Plan designs. Through this planning and the management of mining and rehabilitation activities, impacts to land degradation are considered to be low. Other localised land degradation impacts at the site from the proposed clearing areas are negligible. Further, North West Quarries aim to improve upon the condition of the land left by the former mining operators.

The alterations to landforms at the site will not impact upon the health of adjacent lands/wider environment. The clearing of native vegetation within the site will not increase the risk of runoff, sedimentation or weed dispersal. The site is not within an area susceptible to the development of the pathogen Dieback. Additionally, there is no Acid Sulfate Soils (ASS) or Acid Mine or Metalliferous Drainage (AMD) potential at the site, as described in the Mine Closure Plan.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**H. *The clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.***

The site is not located within or adjacent to any conservation reserves. Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**I. *The clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.***

The site is not situated within a Proposed Drinking Water Source Area (DoW June 2017). The closest is the De Grey River Water Reserve (WRC 3187-01) and the Yule River Water Reserve (WRC 3208-01).

Clearing of native vegetation may temporarily cause runoff and sedimentation. However, with appropriate management actions, impacts on hydrology and drainage are considered to be low. Existing vegetation within the site is sparse.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.

**J. *The clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.***

There are no drainage lines within the development areas and no perennial pools or surface water, excepting the historic mine pit lake. With appropriate drainage control and water management it is unlikely that the proposed clearing will cause or exacerbate the incidence or intensity of flooding at the site.

Therefore, the proposed clearing permit areas are not likely to be at variance with this principle.



## 6. ATTACHMENTS

The following attachments are provided electronically, in order of mention:

- a. NV-F01 Application for new permit or referral form
- b. NWQ-DMIRS CPS APPLICATION 2023-04-19
- c. NWQ-PIPP-Clearing Permit 4633-1 2012
- d. NWQ-PIPP-Clearing Permit 7969-1 2018
- e. NWQ-PIPP-Clearing Permit 7969-1 Cover Letter
- f. NWQ-PIPP-Clearing Permit 7969-1 signed Plan
- g. NWQ-PIPP-Clearing Permit Map\_2023
- h. NWQ-PIPP-DMP LETTER - CP NQ CONCERN - MAR 2012
- i. NWQ-PIPP-EPBC REFFERAL - NCA 2012\_6461
- j. NWQ-PIPP-M45\_258\_Mining Approval Letter
- k. NWQ-PIPP-RECOMENCEMENT OF MINING PROP – 2019
- l. NWQ-PLN-10-MINE CLOSURE PLAN-06-211221