



# Clearing Permit Decision Report

## 1. Application details and outcomes

### 1.1. Permit application details

Permit number:	7919/2
Permit type:	Purpose Permit
Applicant name:	Holcim (Australia) Pty Ltd
Application received:	18 August 2022
Application area:	23.725 hectares
Purpose of clearing:	Mineral Production
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 52/59
Location (LGA area/s):	Shire of East Pilbara
Colloquial name:	Newman Quarry

### 1.2. Description of clearing activities

Clearing permit CPS 7919/1 was granted by the Department of Mines, Industry Regulation and Safety (DMIRS) on 15 March 2018 and was valid from 7 April 2018 to 7 April 2023. The permit authorised the clearing of up to 9.748 hectares of native vegetation within a boundary of 9.748 hectares, for the purpose of mineral production.

On 18 August 2022, the Permit Holder applied to amend CPS 7919/1 to increase the amount of clearing allowed by 13.977 for a total clearing of 23.725 hectares of native vegetation and to increase the permit boundary by 13.977 hectares for a total footprint of 23.725 hectares. The amendment is also to increase the duration of the permit by 10 years.

As of 30 June 2022, a total of 1.25 hectares have been cleared in the application area under permit 7919/1 (Holcim, 2022b). The amendment is needed for further development of the approved pit for the Newman Quarry and to clear vegetation that has been previously cleared and has now regrown (Holcim, 2022a).

### 1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	29 September 2022
Decision area:	23.725 hectares of native vegetation

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51KA(1) of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 18 August 2022. DMIRS advertised the application for a public comment for a period of 21 days, and no submissions were received.

The assessment has not changed since the assessment for CPS 7919/1. The Delegated Officer determined that the proposed additional clearing of 13.977 hectares, the proposed increase of 13.977 hectares to the clearing footprint, and a duration extension of 10 years on the clearing permit are not likely to lead to an unacceptable risk to environmental values.

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

## 1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.

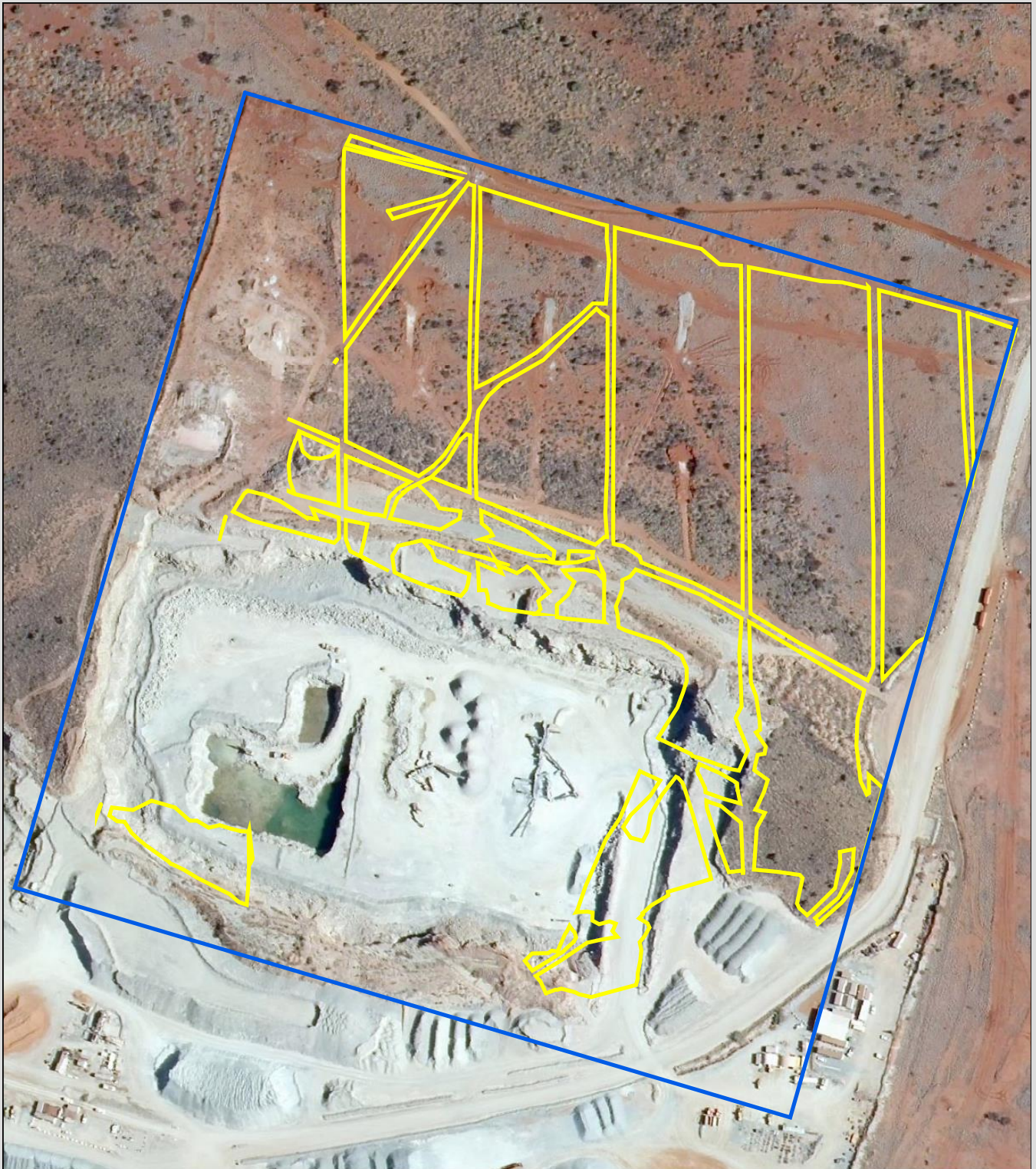


Figure 1. Map of the application area. The yellow area indicates the previous permit area (CPS 7919/1) and the blue area indicates the additional areas included as part of this application.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity

- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Mining Act 1978* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2014)
- *Procedure: Native vegetation clearing permits* (DWER, October 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

### 3. Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

No evidence of avoidance or mitigation measures was provided to support the application. However, impacts of the proposed clearing are low and an avoid and minimise condition has been placed on the permit.

#### 3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix B) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 7919/1. The amendment area covers part of a developed quarry and the vegetation present is in degraded condition and contains weeds. A 10 year extension was granted on the clearing permit to align with the operational life of the Newman Quarry Project as the environmental values of the amendment area are unlikely to change in a 10 year period due to the degraded state of the vegetation located within the amendment area.

#### 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 26 August 2022 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2005/006) over the area under application (DPLH, 2022). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2022). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

Other relevant authorisations required for the proposed land use include:

- A Mining Proposal / Mine Closure Plan approved under the *Mining Act 1978*.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

**End**

## Appendix A. Site characteristics

### A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is located in the Newman Quarry which has been disturbed for several years. It is surrounded by native vegetation. The application area is located approximately 5 kilometres northwest of the town of Newman (GIS Database).
Ecological linkage	According to available databases there are no mapped ecological linkages intersecting the application area (GIS Database).
Conservation areas	The area proposed to be cleared is not located within any mapped conservation areas. There are no known conservation areas within a 100 kilometre radius of the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association: 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (GIS Database).</p> <p>Two flora and vegetation surveys were conducted over the application area by Animal Plant Mineral Pty Ltd (APM) during October 2009, and by MWH Australia Pty Ltd (MWH) during April, 2015. The following broad habitat types were recorded within the application area (APM, 2009; MWH, 2015):</p> <p><b>Waste dumps</b> - low isolated <i>Corymbia hamersleyana</i> trees, over sparse shrubland dominated by <i>Acacia pruinosa</i>, <i>Acacia bivenosa</i>, <i>Acacia adsurgens</i> and <i>Acacia spondylophylla</i>, over open hummock grassland dominated by <i>Triodia wiseana</i> with <i>*Cenchrus ciliaris</i> on an old waste dump and along wind rows.</p> <p><b>Rocky hills</b> - low isolated <i>Hakea chordophylla</i> trees, over low open shrubland dominated by <i>Acacia ayersiana</i> and <i>Acacia inaequilatera</i>, over low open shrubs dominated by <i>Corchorus lasiocarpus</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i>, over hummock grassland dominated by <i>Triodia wiseana</i> on rocky ironstone hills on red clay loam.</p> <p><b>Excavation areas</b> - low open shrubland dominated by <i>*Aerva javanica</i> and <i>Ptilotus clementii</i>, over low grasses and forbs dominated by <i>Enneapogon caerulescens</i> and <i>Senna notabilis</i>, on an old excavation area on the edge of the quarry on grey brown clay loam.</p> <p><b>Hummock grasslands</b> - low isolated <i>Hakea chordophylla</i> trees, over mid open shrubland dominated by <i>Acacia bivenosa</i>, <i>Acacia adsurgens</i> and <i>Acacia tetragonophylla</i>, over hummock grassland dominated by <i>Triodia wiseana</i>, on ironstone plains of brown orange clay loam.</p> <p><b>Open Acacia Shrubland</b> - mid open shrubland dominated by <i>Acacia incurvaneura</i> and <i>Acacia pruinocarpa</i>, over low sparse shrubs dominated by <i>Senna artemisioides</i> subsp. <i>helmsii</i>, over open hummock grassland dominated by <i>Triodia wiseana</i> and <i>Triodia epactia</i>, with tussock grasses dominated by <i>Enneapogon caerulescens</i> and <i>*Cenchrus ciliaris</i> and <i>Paraneurachne muelleri</i> on ironstone plains with red loamy sand.</p> <p><b>Rehabilitation areas</b> - mid to low sparse shrubs dominated by <i>Acacia bivenosa</i>, <i>Scaevola spinescens</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i>, over open hummock grassland dominated by <i>Triodia wiseana</i> and <i>Triodia epactia</i> with mixed forbs and shrubs on a rehabilitated granite plain on orange clay loam.</p> <p><b>Tussock grasslands</b> - mid isolated trees of <i>Corymbia aspera</i>, over spare shrubland dominated by <i>Pimelea ammodcharis</i>, over tall tussock grassland dominated by <i>*Cenchrus ciliaris</i> and <i>Aristida ingrata</i> on an orange brown clay loam plain that is prone to waterlogging.</p> <p><i>*indicates an invasive species</i></p>
Vegetation condition	<p>The vegetation survey (APM, 2009) and the aerial imagery, indicate the vegetation within the proposed clearing area is in degraded to completely degraded (Trudgen, 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p>
Climate and landform	The area proposed to be cleared is located in an arid zone which receives an annual rainfall average of 322.8 millimetres (BoM, 2022). The application area falls within the Elimunna Land System described as stony plains on basalt supporting sparse acacia and cassia shrublands and patchy tussock grasslands (DPIRD, 2022; Van Vreeswyk et al., 2004).
Soil description	The soil within the application area is mapped as soil unit Fa14 (GIS Database). This soil unit is described as steep hills and steeply dissected pediments on areas of banded jaspilite and chert along with shales, dolomite, and iron ore formations; some narrow winding valley plains: chief soils are shallow stony earthy loams (Northcote et al., 1960-68).

Characteristic	Details
Land degradation risk	The application area is located in a land system that is inherently resistant to erosion, however, some drainage floors are slightly susceptible to erosion (Van Vreeswyk et al., 2004).
Waterbodies	According to available GIS databases and aerial imagery, one minor, non-perennial watercourse transects the area proposed to be cleared (GIS Database).
Hydrogeography	The application area is located in the Pilbara Groundwater Area legislated by the <i>RIWI Act 1914</i> . The salinity of the groundwater is mapped as 500-1000 milligrams per litre total dissolved solids which is described as marginal (GIS Database). The application area is also located within the Newman Water Reserve, a Public Drinking Water Source Area (PDWSA) listed as Priority 1 and legislated by the <i>CAWS Act 1947</i> .
Flora	There were no Threatened flora or Priority flora species recorded within the application area (APM, 2009; MWH, 2015).
Ecological communities	The application area is not located within any known or mapped Priority Ecological Communities (PECs) or Threatened Ecological Communities (TECs). The closest record is a TEC named Ethel Gorge aquifer stygobiont community. It is located 3.2 kilometres east of the application area and it is listed as Endangered (GIS Database).
Fauna	There were no Threatened fauna or Priority fauna species recorded within the application area (APM, 2009; MWH, 2015).

## Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u></p> <p>The additional area proposed to be cleared does not comprise a high level of biodiversity (APM, 2009). No flora or fauna species of conservation significance were recorded within the application area (APM, 2009; WMH, 2015). The vegetation units identified in the application area are not representative of any known PECs (MWH, 2015). The closest PEC is located 45 kilometres north of the application area (GIS Database). There were three introduced flora species (weeds) recorded in the application area (MWH, 2015). None of these weed species are listed as Declared Pests or as Weeds of National Significance. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the continued implementation of the weed management condition on the permit.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	No
<p><u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i></p> <p><u>Assessment:</u></p> <p>More than 70 per cent of the application area is completely cleared and developed (APM, 2009). The area that remains uncleared is significantly disturbed and retains little, if any, vegetation or fauna habitat of conservation value (APM, 2009). The habitats present in the application area are widespread throughout the region (WMH, 2015). No critical or regionally significant habitats occur within the application area (WMH, 2015). The area proposed to be cleared does not comprise significant habitat for fauna.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>There were no Threatened flora species recorded in the area proposed to be cleared (APM, 2009; MWH, 2015). No Threatened flora species were considered likely to occur within the application area (MWH, 2015).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	<p>No</p>
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The application area does not intersect any mapped Threatened Ecological Communities (GIS Database). The area proposed to be cleared does not contain vegetation units that are characteristic of any known TECs (MWH, 2015).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	<p>No</p>
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The application area falls within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). Over 99 per cent of the pre-European vegetation still exists in the Pilbara Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 82. This vegetation association has not been extensively cleared as over 99 per cent of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).</p>	<p>Not at variance</p> <p>as per CPS 7919/1</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area (over 100 kilometres) (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of mapped conservation areas.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	<p>No</p>
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>There is one minor ephemeral drainage line intersecting the north-eastern side of the application area (GIS Database). This drainage line has already been heavily modified by previous clearing activities within and outside the application area (GIS Database). These drainage lines are common in the local area (20 kilometre radius) (GIS Database) and given the poor condition of the vegetation in the area and the presence of weeds, the proposed clearing is unlikely to have a significant impact on riparian vegetation and surface water flow.</p>	<p>At variance</p> <p>as per CPS 7919/1</p>	<p>No</p>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p>	<p>Not likely to be at variance</p>	<p>No</p>

Assessment against the clearing principles	Variance level	Is further consideration required?
The mapped land system where the application area is located, is inherently resistant to wind erosion (Van Vreeswyk et al., 2004). Drainage floors are slightly susceptible to wind erosion (Van Vreeswyk et al., 2004). Noting the location of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.	as per CPS 7919/1	
<p><b>Principle (i):</b> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><b>Assessment:</b></p> <p>The application area is located in the Newman Water Reserve, a Public Drinking Water Source Area (PDWSA) listed as Priority 1 (P1). Clearing activities for mineral production are compatible with P1 PDWSA (DWER, 2018) as long as best practices and conditions listed in the Water Quality Protection Note 25 (DWER, 2021) are met. Mining Lease 52/59 also has conditions to be followed when conducting mining activities on the Newman Water Reserve. Therefore, the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	No
<p><b>Principle (j):</b> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><b>Assessment:</b></p> <p>Given there are no wetlands or permanent watercourses mapped within the application area (GIS Database), the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding (DWER, 2018).</p>	<p>Not likely to be at variance</p> <p>as per CPS 7919/1</p>	No

### Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation’s ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from

Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

#### Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.

Condition	Description
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix D. Sources of information

### D.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

### D.2. References

- APM (2009) Holcim Newman: Level 1 Flora and Fauna Biological Assessment Survey. Report prepared by Animal Plant Mineral Pty Ltd for Holcim Pty Ltd, 2009.
- BoM (2022a) Bureau of Meteorology Website – Climate Data Online. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 15 August 2022).
- Department of Environment Regulation (DER) (2014) *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf)
- Department of Planning, Lands and Heritage (DPLH) (2022) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 29 August 2022).
- Department of Primary Industries and Regional Development (DPIRD) (2022) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://dpiird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 29 August 2022).
- Department of Water and Environmental Regulation (DWER) (2018) Advice received in relation to Clearing Permit Application CPS 7919/1. Department of Water and Environmental Regulation, Western Australia, February 2018.
- Department of Water and Environmental Regulation (DWER) (2021) Water quality protection note 25. Department of Water and Environmental Regulation, August 2021. Available from: <https://www.wa.gov.au/system/files/2022-04/Land-use-compatibility-tables-for-public-drinking-water-source-areas.pdf>
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. Available from: [https://dwer.wa.gov.au/sites/default/files/Procedure\\_Native\\_vegetation\\_clearing\\_permits.pdf#:~:text=This%20Procedur e%3A%20Native%20vegetation%20clearing%20permit%20outlines%20how,%28EP%20Act%29%20and%20to%20ma nage%20granted%20clearing%20permits](https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits.pdf#:~:text=This%20Procedur e%3A%20Native%20vegetation%20clearing%20permit%20outlines%20how,%28EP%20Act%29%20and%20to%20ma nage%20granted%20clearing%20permits)
- Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. Available from: [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf)
- Environmental Protection Authority (EPA) (2020) Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment. Available from:



[https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf)

- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Holcim (2022a) Newman Quarry application for clearing permit within Mining Lease M 52/59. Holcim (Australia) Pty Ltd, August 2022.
- Holcim (2022b) Newman Quarry Clearing Permit 7919/1 Annual Report Period 1 July 2021 – 30 June 2022 (Permit Granted 7 April 2018). Report prepared by Holcim (Australia) Pty Ltd for the Department of Mines, Industry Regulation and Safety, August 2022.
- MWH (2015) Newman Quarry: Rapid Biodiversity Assessment. Report prepared by MWH Australia Pty Ltd for Holcim Australia Pty Ltd, September 2015.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.
- Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Van Vreeswyk, A. M. E., Payne, A. L., Leighton, K. A. and Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, WA Department of Agriculture Technical Bulletin No. 92.

## 4. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016, Western Australia</i>
<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DAWE</b>	Department of Agriculture, Water and the Environment, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)
<b>DoEE</b>	Department of the Environment and Energy (now DAWE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986, Western Australia</i>
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)</i>
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914, Western Australia</i>
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia):-

#### **T** Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

**CR**            **Critically endangered species**  
Threatened species considered to be “*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

**EN**            **Endangered species**  
Threatened species considered to be “*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

**VU**            **Vulnerable species**  
Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

**Extinct Species:**

**EX**            **Extinct species**  
Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW**            **Extinct in the wild species**  
Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI**            **Migratory species**  
Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

- CD Species of special conservation interest (conservation dependent fauna)**  
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).  
Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.
- OS Other specially protected species**  
Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).  
Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.
- P Priority species:**
- Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.
- Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.
- Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species**  
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species**  
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species**  
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring**  
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.  
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.  
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**Principles for clearing native vegetation:**

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

- (c)** Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (d)** Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.
- (e)** Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- (f)** Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (h)** Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- (i)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- (j)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.