Department of Mines, Petroleum and Exploration

GOVERNMENT OF WESTERN AUSTRALIA

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	10734/1
Permit type:	Purpose Permit
Applicant name:	Genesis Minerals (Leonora) Pty Ltd
Application received:	26 August 2024
Application area:	399.13 hectares
Purpose of clearing:	Mineral production and associated activities
Method of clearing:	Mechanical Removal
Tenure:	General Purpose Lease 37/21 Miscellaneous Licences 37/28, 37/29, 37/30, 37/70, 37/80, 37/220, 37/263 Mining Leases 37/17, 37/25, 37/55, 37/247, 37/251, 37/622, 37/689, 37/903
Location (LGA area):	Shire of Leonora
Colloquial name:	Tower Hill Project

1.2. Description of clearing activities

Genesis Minerals (Leonora) Pty Ltd proposes to clear up to 399.13 hectares of native vegetation within a boundary of approximately 618.79 hectares, for the purpose of mineral production and associated activities (Genesis Minerals, 2024). The project is located approximately one kilometre southwest of Leonora, within the Shire of Leonora (GIS Database).

The application is to allow for the expansion of the existing Tower Hill pit, expansion of waste rock landforms, haul roads and off site production infrastructure (Genesis Minerals, 2024).

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	18 September 2025
Decision area:	399.13 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), now Department of Mines, Petroleum and Exploration (DMPE), advertised the application for a public comment for a period of 21 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix G), supporting information provided by the applicant (Appendix A) including the results of a flora and vegetation survey (Appendix E), the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

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 loss of native vegetation that is suitable habitat for malleefowl (*Leipoa ocellata*);
- the loss of native vegetation that is suitable habitat for short range endemic species *Aname* 'BMYG222' '*mellosa* group' and *Mecistocephalus* 'BGE074';
- potential impacts to adjacent Melita calcrete groundwater assemblage type on Raeside palaeodrainage on Melita Station (Sons of Gwalia) priority ecological community; and
- potential land degradation in the form of water and wind erosion.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (Section 3.1), the Delegated Officer determined the proposed can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- watercourse management to avoid riparian vegetation and maintain existing water flow;
- commence construction no later than six months after undertaking clearing to reduce the risk of erosion;

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 (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
- the polluter pays principle

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Biosecurity and Agriculture Management Act 2007* (BAM Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Mining Act 1978* (WA)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

Relevant agreements (treaties) considered during the assessment include:

- Japan-Australia Migratory Bird Agreement
- China-Australia Migratory Bird Agreement
- Republic of Korea-Australia Migratory Bird Agreement

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, 2016a)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)
- Technical guidance – *Sampling of short range endemic invertebrate fauna* (EPA, 2016b)
- Technical guidance – *Subterranean fauna surveys for environmental impact assessment* (EPA, 2021)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. Control measures submitted are listed below (Genesis Minerals, 2024):

- Avoid and minimise clearing by expanding existing cleared areas (pit and waste rock landforms);
- Dedicated topsoil stockpile area included in the mine design, where topsoil is planned to be stored no higher than two meters to maintain seed viability;
- Weed management within disturbance boundary including stockpiled areas, roads and verges;
- Progressive rehabilitation of available areas where practicable; and
- Implementation of an Environmental Management System to reduce environmental risks and outline measures to minimise environmental impacts.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles identified that the impacts of the proposed clearing present a risk to biological values (fauna, flora, groundwater assemblages and associated stygofauna communities, and short range endemic species).

The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (flora, fauna and PEC) - Clearing Principles (a) and (b)

Assessment

Native Vegetation Solutions (NVS) conducted flora survey over the application area and a broader survey area covering approximately 3,558 hectares. The survey was conducted from 12 to 16 of September 2022, during a period of above average rainfall (NVS, 2023). A limitation identified by NVS was the disturbance within the application area, NVS noted that these areas were avoided but did not significantly compromise the results of the survey (NVS, 2023).

Priority flora

There are no records of Threatened or Priority flora within the application area (NVS, 2023; GIS Database). There are nine priority flora species records within the local surrounds (20 kilometres), however the application area does not provide suitable habitat for these species to occur (NVS, 2023; Spectrum, 2022; Western Botanical, 2025).

Fauna

Spectrum conducted a basic fauna survey from the 16 to 19 November 2021 (Spectrum, 2022). Terrestrial Ecosystems conducted a basic vertebrate fauna risk assessment and a targeted malleefowl survey on 12 and 17 of September 2022 (Terrestrial Ecosystems, 2023).

Malleefowl

Malleefowl (*Leipoa ocellata*, VU) occurs in semi-arid to arid shrublands and low woodlands dominated by mallee and associated habitats, such as broombush *Melaleuca uncinata* and native pine *Callitris* spp. scrub (DEWHA, 2017). Malleefowl can also occur in scrubs of acacia in central Australia however this is less frequent (DEWHA, 2017). Nesting habitat occurs in light sandy soil and where leaf litter is abundant, for the construction and heating of the incubation mound (DEWHA, 2017). This species forages on the ground in leaf litter or among low vegetation, such as herbs and shrubs (DEWHA, 2017).

No suitable foraging or nesting habitat was identified within the application area (Terrestrial Ecosystems, 2023; Spectrum, 2022). Malleefowl tracks were present within the broader survey area, however no evidence active or recently active mounds was recorded (Terrestrial Ecosystems, 2023). It is likely that isolated malleefowl within and adjacent to the application area utilise the application area to move to areas of denser vegetation but not for breeding (Terrestrial Ecosystems, 2023).

Peregrine falcon

The peregrine falcon (*Falco peregrinus*, OS) is widespread throughout much of Australia, with its preferred habitat being coastal and inland cliffs, or open woodlands near waterbodies and watercourses (Australian Museum, 2019; Terrestrial Ecosystems, 2023). This species nests in recesses of cliff faces, tree hollows or in abandoned nests of other large bird species (Australian Museum, 2019). There is one record of the peregrine falcon less than one kilometres north of the application area (GIS Database). The peregrine falcon may occasionally forage within the application area but is unlikely to be a permanent resident as application area lacks open woodlands near waterbodies, cliffs or permanent waterbodies (Spectrum, 2022; Terrestrial Ecosystems, 2023).

Fork-tailed swift

The fork-tailed swift (*Apus pacificus*, MI) is a nomadic, almost exclusively aerial species which rarely comes to the ground usually for breeding (Spectrum, 2022; Terrestrial Ecosystems, 2023). This species is infrequently seen in the region (Terrestrial Ecosystems, 2023).

Migratory shorebird species

There have been migratory birds recorded within 12 kilometres of the application area at a farm dam (GIS Database). The proposed clearing is unlikely to impact the species utilising this area as there are no permanent water bodies within the application area (GIS Database).

Priority Ecological Community

The Melita calcrete groundwater assemblage type on Raeside palaeodrainage on Melita Station (Sons of Gwalia) Priority Ecological Community (PEC) (P1) is located less than 1.5 kilometres south of the application area (GIS Database). This community is characterised by unique assemblages of invertebrates that have been identified in the groundwater calcretes (DBCA, 2023). Calcrete deposits form along present or ancient drainage lines and provide suitable habitat for stygofauna where cavities have developed below the water table (Pennington Scott, 2025). Bennelongia (2023) undertook a basic stygofauna sampling program from 30 to 31 March 2023, with four boreholes taken from within the application area (one within the Raeside palaeovalley) and three from within the PEC. The survey determined that there are high levels of stygofauna diversity within the PEC adjacent to the application area, however this diversity was not present within samples taken inside of the application area (Bennelongia, 2023).

There is potential for the Melita PEC to extend into the application area, as the Raeside palaeovalley, which the Melita PEC is located in, transects the western side of the application area (Appendix F, Figure 9) (Pennington Scott, 2025; GIS Database). Boreholes taken from the margin of the pit confirmed the presence of calcretes, however these were unsaturated and therefore not suitable for stygofauna (Pennington Scott, 2025). Possible saturated calcrete habitat has been mapped by Pennington Scott (2025) (Appendix F), which determined that suitable calcrete habitat is likely to occur on the western side of the application area, within the Raeside palaeovalley.

Ephemeral creeks within the application area flow towards the Melita PEC, and it is unknown if the clearing of riparian vegetation associated with these ephemeral creeks will negatively impact the PEC (DBCA, 2025). Within the application area 53.34 hectares of creekline vegetation and 4.11 hectares of *Acacia burkittii* creekline vegetation has been mapped, however no typical groundwater dependent species were recorded within the application area (Genesis Minerals, 2025b; NVS, 2023). *Eucalyptus camaldulensis* subsp. *obtusa* (Blunt-budded River Red Gum) was recorded adjacent to the application area, *Eucalyptus camaldulensis* species are known to utilise groundwater when surface water is absent, even if saline (DPI, 2016; Mensforth et al.,1994).

Within the application area groundwater is relatively close to the surface, ranging between one and eight metres in depth below the surface (Genesis Minerals, 2025a; Appendix G), groundwater being close to the surface makes it more likely to be utilised by riparian vegetation when surface water is unavailable (DPI, 2016). The removal of riparian vegetation can result in the water table dropping below ecologically safe levels, however it is unknown whether there is a connection between surface runoff and aquifer recharge and whether the PEC has a reliance on surface water. As calcretes can be formed relatively close to the surface a drop in the water table or an alteration in surface water received could potentially have a significant negative impact on the stygofauna community.

Short Range Endemic species
The Short Range Endemic (SRE) survey was conducted by Bennelongia (2024), in the broader survey area from 28 to 31 March 2023 immediately following five days of rainfall, as SRE groups are more active after substantial rainfall (Bennelongia, 2024). Within the application area, eight invertebrate species were recorded, with four species identified as potential or likely SRE (Bennelongia, 2024):

- *Aname* 'BMYG222' '*mellosa* group', (mygalomorph spider), Likely SRE
- *Idiosoma* 'BMYG221', (mygalomorph spider), Likely SRE
- *Lamyctes* 'BLITH003', (centipede), Data Deficient Potential SRE
- *Mecistocephalus* 'BGE074', (centipede), Data Deficient Potential SRE

Mygalomorph spiders
Two mygalomorph spider species were recorded within the application area (Bennelongia, 2024; Spectrum, 2022). *Aname* `BMYG222` `*mellosa* group` was identified for the first time during the survey (Bennelongia, 2024). *Idiosoma* 'BMYG221' is only known from these two localities, one within the application area and one outside of the application area, within the Leonora Project expansion area (Bennelongia, 2024). Both species were identified from stony plains with bluebush shrubland habitat type, which is widespread within the region (Bennelongia, 2024; Waddell et al., 2023).

Idiosoma `BMYG221` SRE categorisation has since changed from Likely SRE to Widespread based on recent molecular matches to specimens found 50 kilometres southeast of the application area (Bennelongia, 2025). *Aname* `BMYG222` SRE categorisation has changed from likely SRE to unlikely potential SRE based widespread habitat type specimens were collected from and the number of known records, it is expected for this species to occur outside of the application area (Bennelongia, 2025).

Centipedes
Two centipede species were recorded for the first time during the survey from were singleton specimens (Bennelongia, 2024). Centipedes were identified only from stony plains with bluebush shrubland, which is widespread within the region (Bennelongia, 2024; Waddell et al., 2023).

Lamyctes `BLITH003` is now considered Widespread, based on recent molecular sequence matches with specimens collected from the Kimberley (Bennelongia, 2025). *Mecistocephalus* `BGE074` SRE categorisation remains as data deficient due to the lack of records, which is attributed to the cryptic nature of the genus and difficultly of locating specimens during field surveys (Bennelongia, 2025). However, given the habitats and microhabitats (*Acacia* sp. leaf litter, bark and base of trees) this species was recorded in it is expected to occur outside of the application area (Bennelongia, 2024; Bennelongia, 2025).

Conclusion

Priority flora

Priority flora species within the local surrounds (20 kilometres) are unlikely to occur within the application areas due to lack of suitable habitat and are therefore unlikely to be significantly impacted by the proposed clearing.

Fork-tailed swift
This species is unlikely to be significantly impacted by the proposed clearing as this species is almost exclusively aerial and can utilise a wide variety of habitats, if present it is likely to only utilise the airspace above the application area.

Malleefowl
The area proposed to be cleared is unlikely to contain significant nesting or foraging habitat for this species, a slow directional clearing condition will be implemented to allow individuals to move to more suitable adjacent habitat.

Migratory shorebird species
These species are unlikely to be impacted as suitable permanent waterbody habitat is not present within the application area.

Peregrine falcon
The peregrine falcon may infrequently be seen within the application area however due to this species wide range it is unlikely the proposed clearing will significantly impact this species habitat.

Priority Ecological Community

There is potential for stygofauna to inhabit suitable saturated calcrete habitat within the application area, however it is unknown if stygofauna would be synonymous to stygofauna within the Melita PEC. It is unlikely that the clearing of native vegetation will significantly impact this potential calcrete habitat as no groundwater dependent vegetation has been recorded within the application area.

The reliance of surface water to saturate calcrete habitat within the Melita PEC is unknown, ensuring that surface flow is maintained and reinstated downstream into existing drainage lines will allow any potential connection between surface water and the Melita PEC to be maintained.

Short Range Endemic species

The proposed clearing is unlikely to significantly impact these species at a local or regional scale as habitat and microhabitats in which these species occur in are widespread within the region.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- undertake slow, progressive one-directional clearing to allow malleefowl to move into adjacent habitat ahead of the clearing activity; and
- vegetation management – avoid riparian vegetation and where a watercourse is to be impacted by clearing, the permit holder shall ensure that the existing surface flow is maintained or reinstated downstream into existing natural drainage lines.

3.3. Relevant planning instruments and other matters

The clearing permit application was advertised on 6 December 2024 by the Department of Energy, 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 over the area under application (DPLH, 2025). This claim (WC2018/005) has been determined by the Federal Court on behalf of the claimant, Darlot. 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 five registered Aboriginal Sites of Significance within the application area (DPLH, 2025). 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.

It is noted that the proposed clearing may impact on malleefowl, which is protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Climate Change, Environment and Water for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Climate Change, Energy, the Environment and Water and the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

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. Additional information provided by applicant

Summary of comments	Consideration of comment
Information provided by the applicant regarding the Department's request for further information on *Acacia* sp. Marshall Pool, information provided by Western Botanical Consultants.	Information provided was considered during the assessment of Principle (a)
Information provided by the applicant regarding the Department's request for further information on Short Range Endemic species present within the application area and local surrounds, information provided by Bennelongia Consultants.	Information provided was considered during the assessment of Principle (b)
Information provided by the applicant regarding the Department's request for further information on riparian vegetation, Melita calcrete priority ecological community and hydrogeology of the application area, information provided by Pennington Scott.	Information provided was considered during the assessment of Principles (a) and (b)
Information provided by the applicant regarding the Department's request for photographs of riparian vegetation within the application area, information provided by Genesis Minerals (Appendix E).	Information provided was considered during the assessment of Principles (a) and (b)
Information provided by the applicant regarding the Department's request for further information on riparian vegetation and groundwater levels within the application area, information provided by Genesis Minerals.	Information provided was considered during the assessment of Principles (a) and (b)
Information provided by the applicant regarding the Department's request for further information on surface water flow within the application area and connection to existing drainage lines, to ensure surface water flow to the Melita PEC is maintained, information provided by Genesis Minerals (Appendix H).	Information provided was considered during the assessment of Principles (a), (b), (f) and (j)

Appendix B. Site characteristics

B.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 in between Leonora townsite and Gwalia Gold Mine (GIS Database). The proposed clearing area. The predominant land use I the region is grazing of native pastures, UCL and Crown Reserves, conservation and mining activities (CALM, 2002).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (Terrestrial Ecosystems, 2023; GIS Database).
Conservation areas	There are no conservation areas in or in close proximity to the application area (20 kilometres) (GIS Database). The nearest conservation area is Unnamed WA46847 Nature Reserve, located approximately 54 kilometres southeast of the application area (GIS Database).
Vegetation description	The application area occurs within the IBRA Murchison bioregion in the Eastern Murchison subregion (MUR01) (GIS Database). The vegetation of the application area is broadly mapped as the following Beard vegetation associations (GIS Database): • **Laverton 39**: Scrub, open scrub or sparse scrub; and • **Laverton 28**: Low woodland, open low woodland or sparse woodland; and • **Laverton 18**: Low woodland, open low woodland or sparse woodland. A flora and vegetation survey was conducted over the application area by Native Vegetation Solutions during September 2022. The following vegetation associations were recorded within the application area (NVS, 2023): • *Acacia burkittii* creekline vegetation • Creekline Vegetation • *Eremophila youngii* subsp. *youngii* over Chenopod and *Tecticornia* shrubland • Existing Disturbance • Mulga over Chenopod Shrubland • Mulga over *Eremophila forrestii* and *Eremophila compacta* • Mulga over Ironstone and Quartz outcrops • Mulga over Senna shrubland

Characteristic	Details
	• Mulga Woodland • Open Low Chenopod Shrubland • Open Mulga Woodland over Chenopod Shrubland
Vegetation condition	The vegetation survey and aerial imagery indicate the vegetation within the proposed clearing area is in Very good to Completely degraded (Trudgen, 1991) condition, described as: • **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. to • **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. The area proposed to be cleared has previously been cleared for existing roads, historical open pits, waste landforms and exploration related activities (Talis Consultants, 2024). The full Trudgen (1991) condition rating scale is provided in Appendix D.
Climate and landform	The application area is mapped within elevation areas of 360 to 380 meters Australian height datum (GIS Database). The climate for Eastern Murchison region is arid with an annual rainfall of 236.4 millimetres recorded at Leonora (BoM, 2025; CALM, 2002).
Soil description	The soil is mapped as a part of the following land systems and soil descriptions (DPIRD, 2025; GIS Database): • **Gundockerta system (279Gu):** extensive, gently undulating calcareous stony plains supporting bluebush shrublands. The soil is characterised as calcareous loamy earth, red shallow sandy duplex, stony soil, red-brown hardpan shallow loam, red/brown non-cracking clay. • **Leonora system (279Le):** Low greenstone hills and stony plains supporting mixed chenopod shrublands. The soil is characterised as calcareous loamy earth, red shallow sandy duplex, stony soil, shallow loam, red/brown non-cracking clay. • **Rainbow system (279Rb):** Hardpan plains supporting mulga tall shrublands. The soil is characterised as red loamy earth, red shallow loam, red deep sand, red/brown hardpan shallow loam. • **Carnegie system (279Ca):** Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and acacia tall shrublands. The soil is characterised as salt lake soil, red deep sandy duplex, red deep sand, red/brown non-cracking clay.
Land degradation risk	The Gundockerta, Leonora, Rainbow and Carnegie soil systems mapped within the application area are generally not prone to soil erosion unless perennial shrub cover is substantially reduced. May be at risk of water and wind erosion with the removal of vegetation (Waddell et al., 2023).
Waterbodies	The desktop assessment and aerial imagery indicated that there are no permanent watercourses or water bodies that intersect the application area, however there are records of two minor ephemeral watercourses that transect the area proposed to be cleared (GIS Database). Lake Raeside is located 2.3 kilometres south of the application area (GIS Database).
Hydrogeography	The application area is located within the Goldfields Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (GIS Database). Nearest Public Drinking Water source area is Leonora Water Reserve located approximately 11 kilometres north of the application area. There are no Wetlands of International Importance or Nationally Important Wetlands that occur within the application area or in the local surrounds (20 kilometres) (GIS Database). The mapped groundwater salinity is between approximately 3,000 to over 35,000 milligrams per litre total dissolved solids which is described as brackish to hypersaline (GIS Database).
Flora	There are no records of Threatened flora species occurring within the application area and local surrounds (20 kilometres) (NVS, 2023; GIS Database). There are no records of Priority flora occurring within the application area (NVS, 2023; GIS Database). However, there are records of nine Priority flora that occur within the local surrounds (20 kilometres) (NVS, 2023; Spectrum 2022; GIS Database).
Ecological communities	There is one record of a Priority Ecological Community (PEC), Melita calcrete groundwater assemblage type on Raeside palaeodrainage on Melita Station (Sons of Gwalia) (Priority 1), that is located approximately one kilometre south of the application area and the buffer zone intersects the application area (GIS Database). There are no records of Threatened Ecological Communities in the application area or local surrounds (20 kilometres) (GIS Database).
Fauna	There are nine bird species of conservation significance within the local surrounds (20 kilometres) (GIS Database). There are six short range endemic species within the application area (Bennelongia, 2024). There are three subterranean fauna species within the application area (Bennelongia, 2023).

Characteristic	Details
Fauna habitat	Four broad vertebrate fauna habitats were identified within the application area, in addition to approximately 206 ha of disturbed area (Terrestrial Ecosystems, 2023; GIS Database): • Ephemeral creek lines; • Tall shrublands; • Low shrublands; and • Open mulga woodland. Three short range endemic species habitats were identified within the application area, in addition to disturbed areas (Bennelongia, 2024): • Stony plains with bluebush shrublands; • Hardpan plains with mulga shrubland; and • Low greenstone hills and plains with mulga and chenopod shrublands.

B.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current extent in all DBCA Managed Land (proportion of pre-European extent) (%)
IBRA Bioregion - Murchison	28,120, 586.77	28,044,823.42	99.73	2,185,987.96	7.77
Beard vegetation associations - State					
Veg Assoc 18.	19,892,306.46	19,843,249.90	99.75	1,317,179.00	6.62
Veg Assoc 28.	395,895.08	392,171.83	99.06	-	-
Veg Assoc 39.	6,613,567.48	6,602,578.44	99.83	795,070.69	12.02
Beard vegetation associations - Bioregion					
Veg Assoc 18.	12,403,172.30	12,363,252.47	99.68	614,964.13	4.96
Veg Assoc 28.	224,291.84	220,583.71	98.35	-	-
Veg Assoc 39.	1,148,400.30	1,138,064.63	99.10	40,834.41	3.56

Government of Western Australia (2019)

B.3. Flora analysis table

With consideration for the site characteristics set out above, 20-kilometre radius of relevant datasets (see Appendix I.1), and biological survey information, impacts to the following conservation significant flora required further consideration (NVS, 2023; Spectrum, 2022; Western Australian Herbarium, 1998-; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Acacia sp. Marshall Pool (G. Cockerton 3024)	P3	N	Y	N	1	11	Y
Angianthus prostratus	P3	N	N	Y	13	10	Y
Frankenia glomerata	P4	N	N	N	1	69	Y
Frankenia georgei	P1	N	Y	N	5	6	Y
Stenanthemum patens	P1	N	N	N	13	11	Y
Lepidium xylodes	P1	N	N	Y	15	7	Y
Calytrix praecipua	P3	N	N	N	15	28	Y
Meionectes tenuifolia	P3	N	N	N	15	28	Y
Nicotiana salina	P1	N	N	N	20	11	Y

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Eremophila simulans subsp. megacalyx	P3	N	N	N	19	11	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

B.4. Fauna analysis table

With consideration for the site characteristics set out above, 20-kilometre radius of relevant datasets (see Appendix I.1), and biological survey information, impacts to the following conservation significant fauna required further consideration. (Spectrum, 2022; Terrestrial Ecosystems, 2023; GIS Database).

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
Common Greenshank (*Tringa nebularia*)	MI	N	N	12
Common Sandpiper (*Actitis hypoleucos*)	MI	N	N	12
Fork-tailed Swift (*Apus pacificus*)	MI	N	N	12
Hooded plover (*Thinornis cucullatus*)	MI	N	N	12
Malleefowl (*Leipoa ocellata*)	VU	Y	Y	29
Pacific Gold Plover (*Pluvialis fulva*)	MI	N	N	9
Peregrine Falcon (*Falco peregrinus*)	OS	N	N	1
Sharp-tailed Sandpiper (*Calidris acuminata*)	MI	N	N	8
Wood Sandpiper (*Tringa glareola*)	MI	N	N	1

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, MI: migratory, OS: other specially protected species

B.5. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Mapped extent of occurrence (ha)	Are surveys adequate to identify? [Y, N, N/A]
Melita calcrete groundwater assemblage type on Raeside palaeodrainage on Melita Station (Sons of Gwalia)	P3	Y	Y	2	196	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared potentially contains priority flora and intersects a priority ecological community.	May be at variance	Yes *Refer to Section 3.2.1, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (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."* Assessment: The area proposed to be cleared contains potentially suitable habitat for conservation significant fauna.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain flora species listed under the BC Act (NVS, 2023; Talis Consultants, 2024; GIS Database).	Not likely to be at variance	No
Principle (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."* Assessment: There are no known Threatened Ecological Communities (TECs) located within or in close proximity (20 kilometres) to the application area (Bennelongia, 2024; NVS, 2023; Spectrum, 2022; Terrestrial Ecosystems, 2023; GIS Database).	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (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."* Assessment: The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (Terrestrial Ecosystems, 2023; GIS Database).	Not at variance	No
Principle (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."* Assessment: Given the distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: There are no permanent waterbodies or watercourses within the application area, however there are several ephemeral creek lines (GIS Database). The vegetation type that is mostly associated with ephemeral creek lines is Creekline Vegetation and *Acacia burkittii* creekline vegetation (NVS, 2023). Proponent has proposed a creek diversion that will allow the Wilson Creek tributaries to be diverted around the project south towards Lake Raeside (Appendix H) (AQ2, 2025; Talis Consultants, 2024). Potential impacts to this vegetation as a result of the proposed clearing may be minimised by the implementation of a watercourse management condition.	At variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are generally not prone to soil erosion. Where perennial shrub cover is substantially reduced there is a risk for water and wind erosion. Noting the extent of the application area, the proposed clearing is likely to have an appreciable impact on land degradation (Waddell et al., 2023). Potential erosion impacts as a result of the proposed clearing can be minimised by the implementation of a staged	At variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
clearing condition to ensure large areas are not void of vegetation cover for extended periods.		
Principle (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."* Assessment: Given no permanent water courses, wetlands, and Public Drinking Water Sources Areas are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (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."* Assessment: Given no permanent water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging. The proponent has proposed a creek diversion that will allow the Wilson Creek tributaries to be diverted around the project south towards Lake Raeside (Appendix H) (AQ2, 2025; Talis Consultants, 2024).	Not likely to be at variance	No

Appendix D. 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.
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 E. Photographs of the creekline vegetation, and map of photograph sites

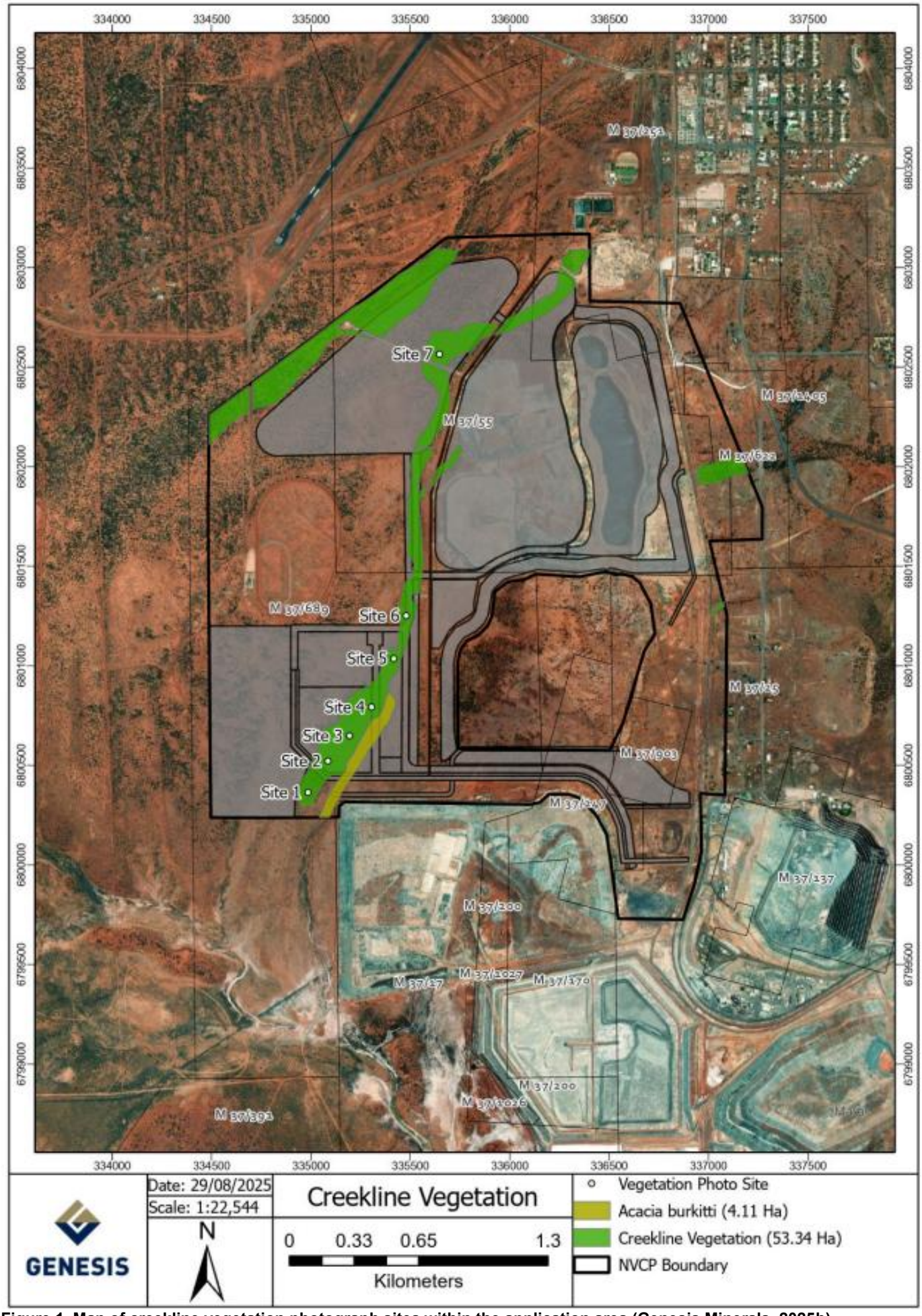


Figure 1. Map of creekline vegetation photograph sites within the application area (Genesis Minerals, 2025b).



Figure 2. Photograph of Site 1 creekline vegetation (121.3073109°E 28.9139890°S) (Genesis Minerals, 2025b).



Figure 3. Photograph of Site 2 creekline vegetation (121.3083811°E 28.9125767°S) (Genesis Minerals, 2025b).



Figure 4. Photograph of Site 3 creekline vegetation (121.3095140°E 28.9114495°S) (Genesis Minerals, 2025b).



Figure 5. Photograph of Site 4 creekline vegetation (121.3106620°E 28.9101619°S) (Genesis Minerals, 2025b).



Figure 6. Photograph of Site 5 creekline vegetation (121.3118496°E 28.9079882°S) (Genesis Minerals, 2025b).



Figure 7. Photograph of Site 6 creekline vegetation (121.3125171°E 28.9060407°S) (Genesis Minerals, 2025b).



Figure 8. Photograph of Site 7 creekline vegetation. (121.3144336°E 28.8942097°S) (Genesis Minerals, 2025b).

Appendix F. Raeside paleovalley and calcrete habitat extent within the application area

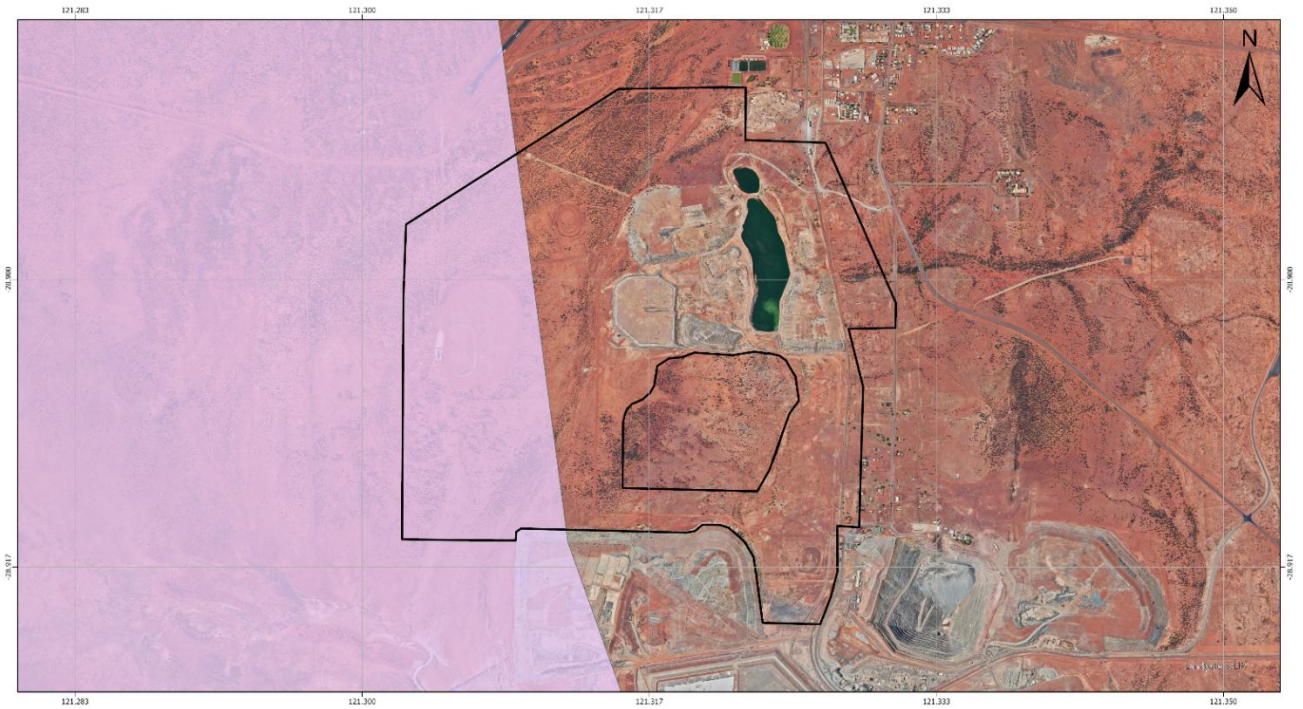


Figure 9. Raeside palaeovalley in relation to the application area, Raeside palaeovalley indicated by pink (GIS Database).

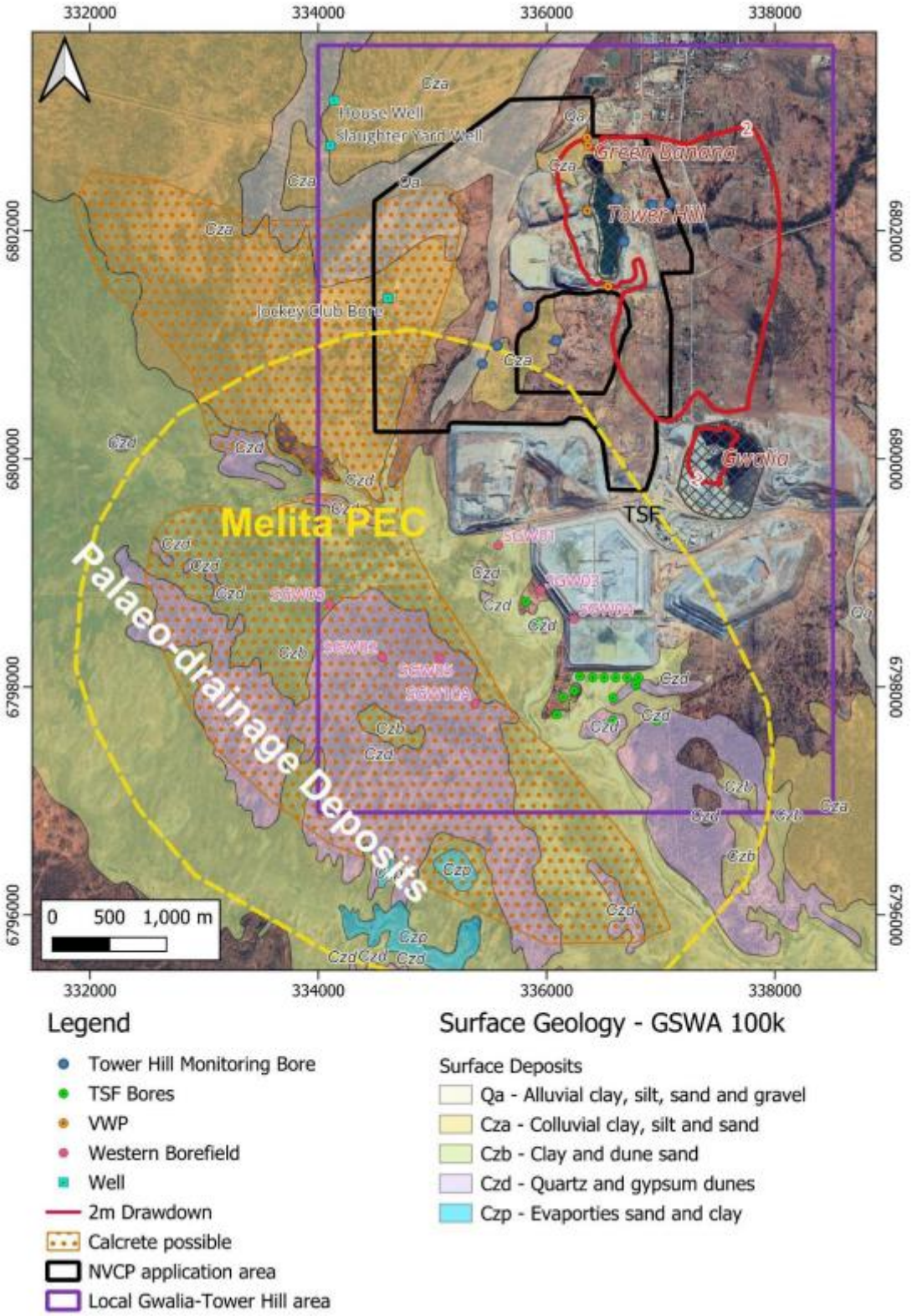


Figure 10. Melita calcrete groundwater assemblage type on Raeside palaeodrainage on Melita Station (Sons of Gwalia) (Melita PEC) (PEC buffer included) and the likely extent of saturated calcrete development (Pennington Scott, 2025)

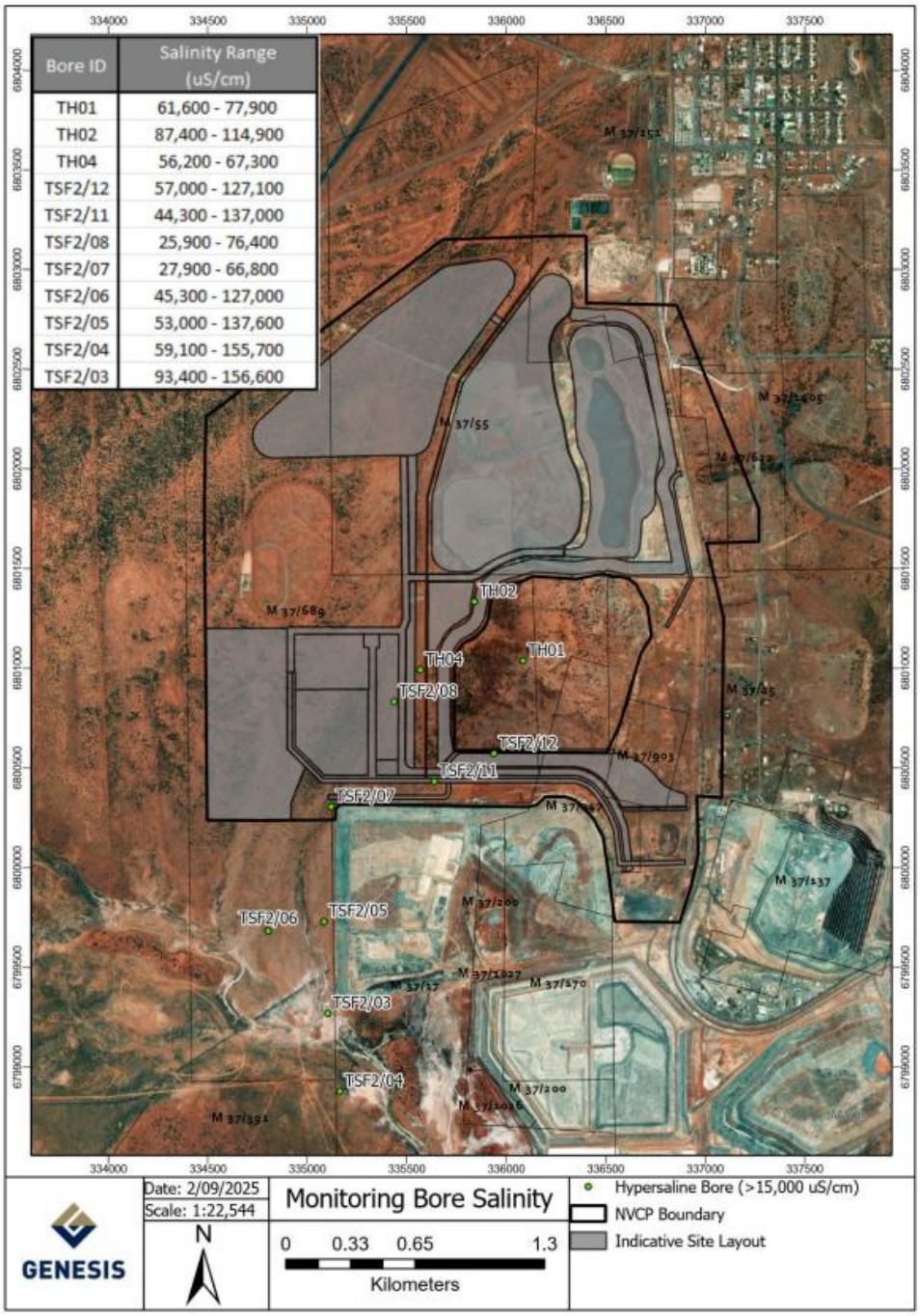


Figure 11. Salinity of boreholes within and adjacent to the Tower Hill application area (Genesis Minerals, 2025a).

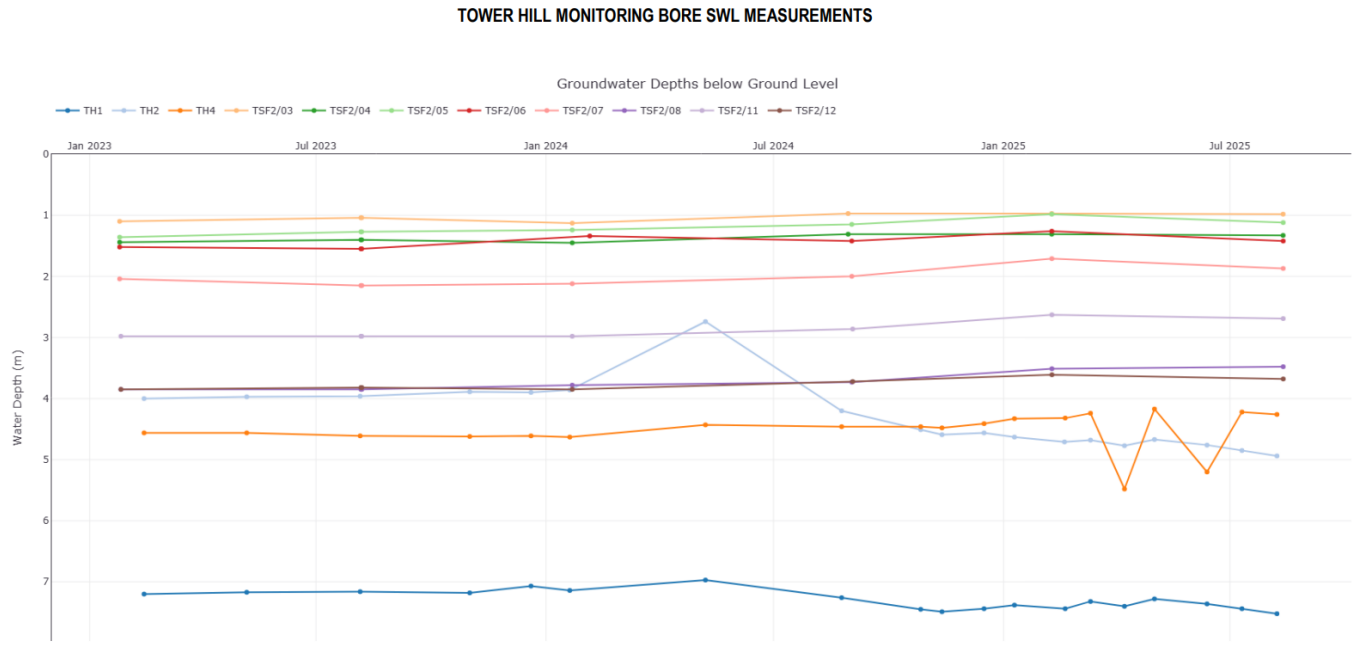


Figure 12. Groundwater depths below ground level from January 2023 to July 2025, taken from boreholes within and adjacent to the Tower Hill application area (see Figure 11) (Genesis Minerals, 2025a).

Appendix H. Surface water flow and connection to drainage lines

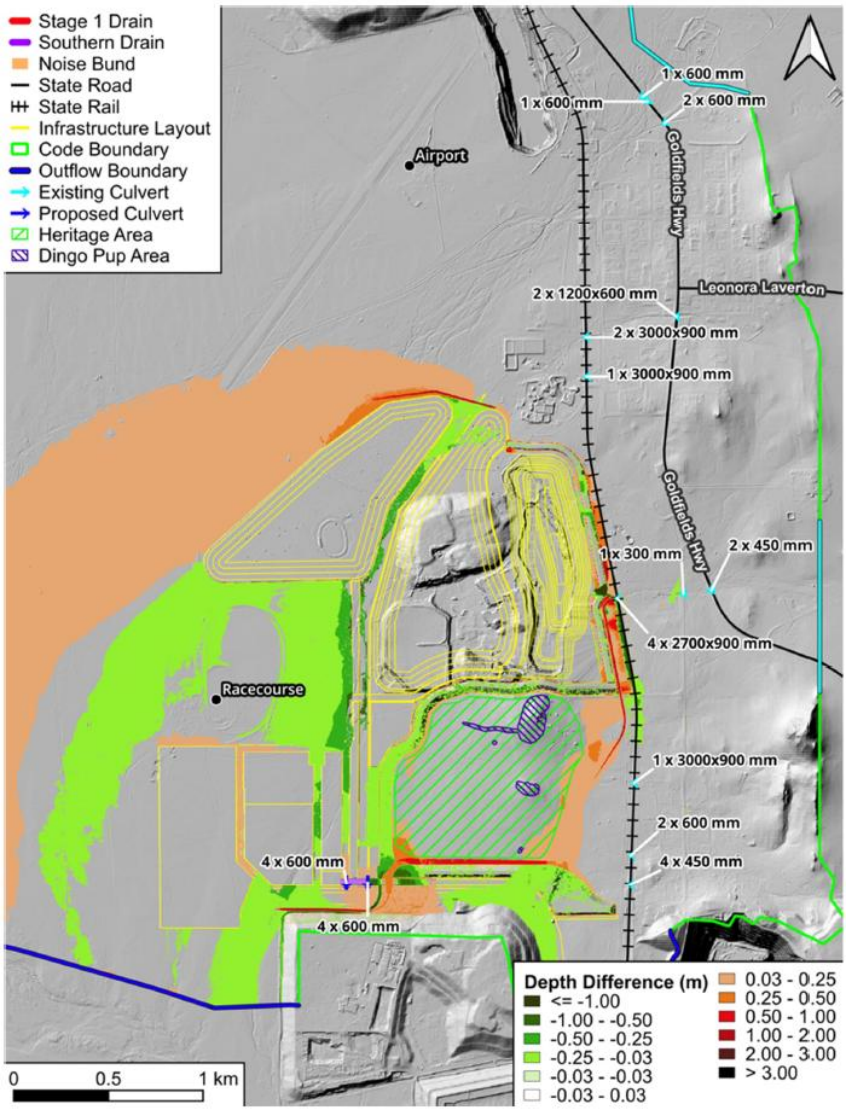


Figure 13. Proposed surface water management and water depth difference for 1% AEP (Annual Exceedance Probability) (Genesis Minerals, personal communication, September 12, 2025).

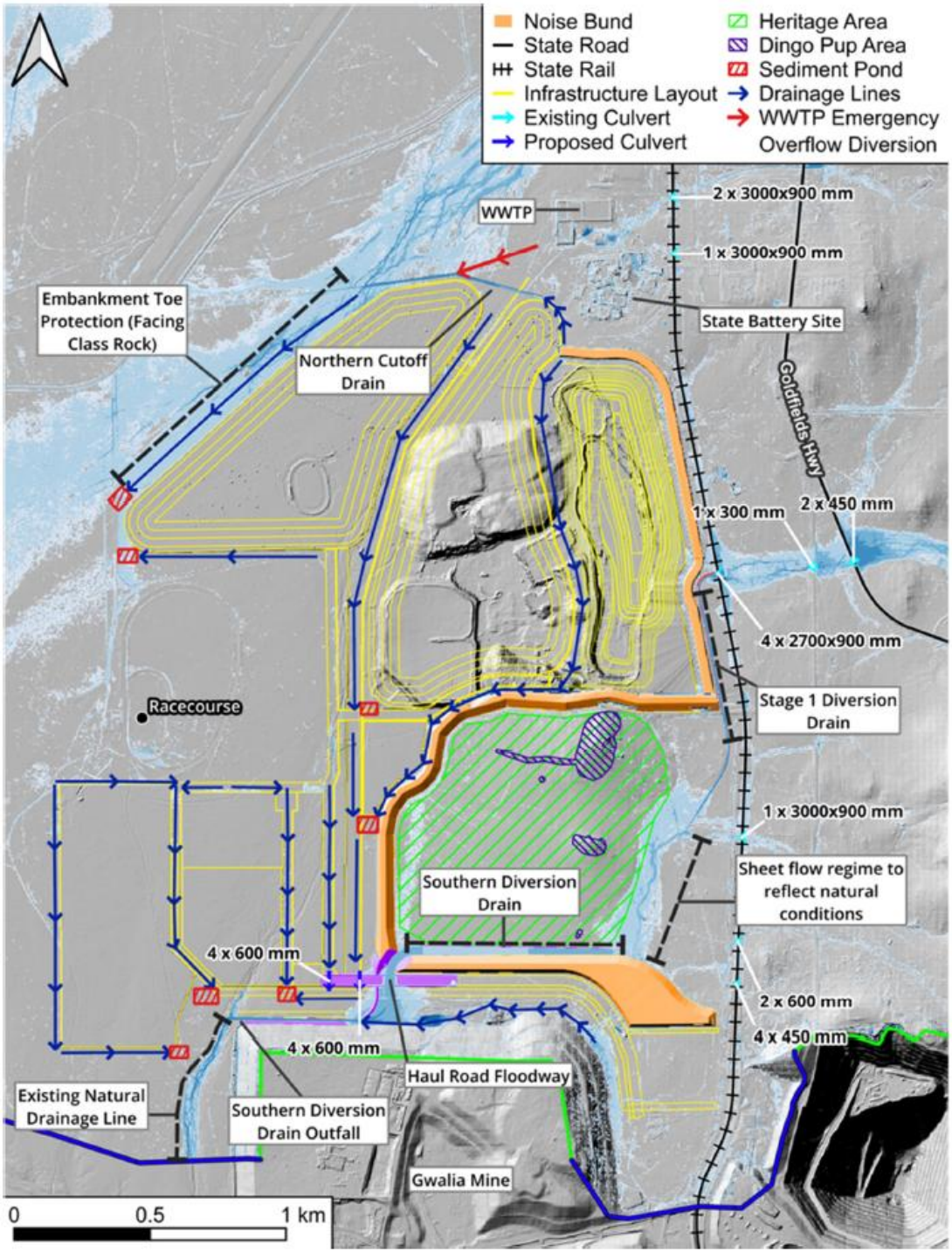


Figure 14. Proposed surface water and sediment management. Water in the southern diversion is diverted back to the southwest of the project. The water will flow around the east of the heritage exclusion zone, then south and discharge to the southwest in the PEC area. The drainage line that flows through the middle of the project will be diverted around the West of the new WRL and will be directed to the southwest of the project, in the PEC area (Genesis Minerals, personal communication, September 12, 2025).

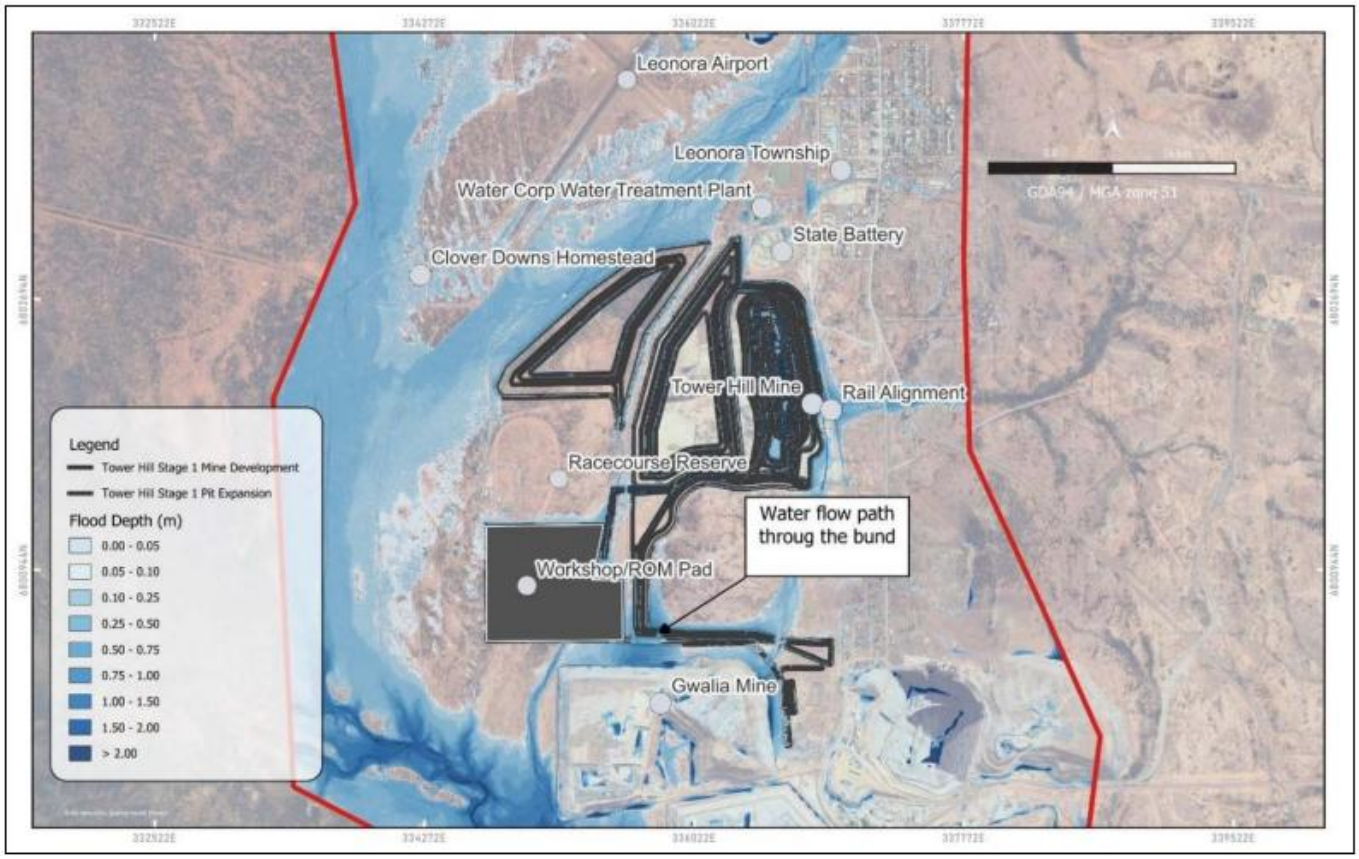


Figure 15. Post developed Flood Depth Map 1% AEP (Annual Exceedance Probability) (AQ2, 2025)

Appendix I. Sources of information

I.1. GIS databases

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

- 10 metre contours (DPIRD-073)
- Cadastre (Polygon) (LGATE-217)
- Clearing Regulations - Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations - Schedule One Areas (DWER-057)
- DBCA - Lands of Interest (DBCA-012)
- DBCA - Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments - Basins (DWER-027)
- Hydrographic Catchments - Catchments (DWER-028)
- Hydrographic Catchments - Divisions (DWER-029)
- Hydrographic Catchments - Subcatchments (DWER-030)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Local Government Area (LGA) Boundaries (LGATE-233)
- Localities (LGATE-234)
- Medium Scale Topo Contour (Line) (LGATE-015)
- Native Title (Determination) (LGATE-066)
- Native Title (Fed Court) (LGATE-005)
- Native Title (NNTT) (LGATE-004)
- Native Vegetation Extent (DPIRD-005)
- Palaeovalleys in Arid and Semi-arid WA-SA-NT (Geoscience Australia)
- Pre-European Vegetation (DPIRD-006)
- Public Drinking Water Source Areas (DWER-033)
- Regional Parks (DBCA-026)
- Reserves (LGATE-227)
- RIWI Act, Groundwater Areas (DWER-034)

- RIWI Act, Rivers (DWER-036)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping - Best Available (DPIRD-027)
- Soil Landscape Mapping - Rangelands (DPIRD-063)
- Surface Water Management Areas (DWER-041)
- Surface Water Management Subareas (DWER-042)
- Townsites (LGATE-248)
- WA Now Aerial Imagery
- WRIMS - Groundwater Areas (DWER-085)
- WRIMS - Groundwater Resources (DWER-084)
- WRIMS - Groundwater Subareas (DWER-083)
- WRIMS - Surface Water Areas (DWER-082)
- WRIMS - Surface Water Resources (DWER-081)
- WRIMS - Surface Water Subareas (DWER-080)

Restricted GIS Databases used:

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

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4. Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* Western Australia
BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Federal Act)
GIS	Geographical Information System

Ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia:

Threatened species

T 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 the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

Threatened flora is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of Ministerial Guideline Number 1 and Ministerial Guideline Number 2 that adopts the use of the International Union for Conservation of Nature (IUCN) Red List of Threatened Species Categories and Criteria, and is based on the national distribution of the species.

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.

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.

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.

Extinct species

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

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).

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.

Specially protected species

SP **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).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or 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.

CD **Species of special conservation interest (conservation dependent fauna)**

Species of special conservation need that are 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).

Currently only fauna are listed as species of special conservation interest.

OS **Other specially protected species**

Species 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).

Currently only fauna are listed as species otherwise in need of special protection.

Priority species

P **Priority species**

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey 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 prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of priority status 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 – known from few locations, none on conservation lands**

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, for example, 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 for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species – known from few locations, some on conservation lands**

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, for example, 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 for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species – known from several locations**

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. These species need 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 a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

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.