



Environmental Management for the Resources Industry

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Arid Enviro Management Pty Ltd as trustee for H.W.B.L. Unit Trust, trading as Outback Ecology Services ABN 40-738-765-057

Matt Boardman
Environmental Officer
Native Vegetation Assessment Branch
Department of Mines and Petroleum
Native Vegetation Assessment Branch
100 Plain St
East Perth WA 6004

Our Reference: WQUE-SA-12002

30 October 2012

Amendment to Clearing Permit (Purpose Permit) – CPS 5220/1 Western Queen South Gold Project

Dear Matt

Further to our conversation of 25 October 2012, please find attached an application to amend clearing permit CPS 5220/1 for Mt Magnet Gold Pty Ltd for the Western Queen South Gold Project (the Project).

Mt Magnet Gold Pty Ltd (MMG) have made changes to the proposed site layout for the Project and seek to have the following changes made to the clearing permit:

- The site layout has been changed as per the design shown in **Figure 1**. Changes include the addition of a second turkey's nest adjacent to the Western Queen pit and relocation of the workshop area. These proposed changes all occur within previously disturbed areas.
- The proposed location of the camp has also shifted slightly following further on site investigations for suitable substrate.
- To provide greater flexibility during operations MMG are seeking to change the permit application area to cover a wider area of 309 ha as shown by the cross-hatching in **Figure 1**.
- The initial clearing permit application included clearing areas only for those infrastructure proposed to be established on land that had not previously been disturbed. MMG are seeking to increase the number of hectares to be cleared from 25 ha to 45 ha. The proposed area of disturbance of native vegetation remains largely unchanged at 25.4 ha with the remaining 19.6 ha to take place on land previously disturbed by historic mining activities. An updated table of disturbance is provided at **Table 1**.

The proposed increased permit application area was included in the flora and fauna surveys conducted prior to submission of the original clearing permit application. An assessment against the ten clearing principles is provided at **Table 2**.

In support of this application, please find enclosed:

- An updated area of disturbance table (**Table 1**);
- an updated map of the disturbance area and the proposed site layout (**Figure 1**);

- assessment against the ten clearing principles in relation to the new proposed disturbance area (**Table 2**);
- a C4 application for an amendment to a Clearing Permit (Purpose Permit);
- a letter of authority in regard to the Clearing Permit application; and
- shapefile information for the changes to the proposed disturbance area;

Please do not hesitate to contact me on (08) 9388 8799 or at kelly.boxall@outbackecology.com should you require any further information.

Yours sincerely

A handwritten signature in black ink, appearing to read 'K. Boxall', written in a cursive style.

Kelly Boxall
Environmental Scientist
Outback Ecology

Table 1: Revised area of disturbance table

Tenement	Disturbance type	Area of Disturbance (footprint) (ha)
M59/45	Office	0.6*
	Pipeline	1.1*
	Access Roads	2.4*
	Turkey's Nest	0.6*
	Fuel Tank Storage	0.2*
	Workshop	0.6*
M59/208	ROM Pad	3.5
	Camp	2.6
	Topsoil Stockpiles	1.5
	Access Roads	8.4*
	Access Roads	1.0
	WQS WRL	16.8
	Workshop	1.2*
	Turkey's Nest	0.3*
	Magazine	0.6*
	WQS Pit	2.1*
	WQS Pit Bund	0.5*
	Pipeline	0.8*
	Landfill	0.1*
	Bioremediation	0.1*
L59/40		0.0
Total		45.0

*indicates clearing on previously disturbed land.

Table 2: Assessment against the ten clearing principles

Clearing Principle	Background	Source	Variance
<p>(a) - Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>Ramelius propose to clear approximately 25.4 ha of native vegetation and 19.6 ha of previously disturbed land for the Western Queen South (WQS) Project. The Project is located in the Western Murchison sub-region of the Murchison IBRA bioregion. The proposed clearing will not impact on remnant vegetation communities with less than 30% of their pre-clearing extent remaining, nor reduce the extent of any vegetation communities below the 'threshold level' of 30% of pre-European levels.</p> <p>Eighty vascular plant species, including two introduced species were recorded within the Study area. This is a relatively low number, despite good seasonal conditions for the study. It is not unusual for this area, particularly given the high levels of historical disturbance (grazing and mining). While the Keighery scale lists the majority of vegetation as being in good condition, there is widespread evidence of damage to vegetation from grazing and previous mining operations. The majority of new disturbance is proposed to take place within those areas close to existing mining infrastructure, tracks and fencelines. These areas were identified during the flora study as generally being in poorer condition when compared to areas studied on the eastern side of the Project that are outside the proposed area for development. None of the flora species or Vegetation associations recorded were listed as Threatened at a National or State level.</p> <p>The Priority 4 Flora species <i>Dodonaea amplisemina</i> was identified as occurring within Vegetation association 4 (outside the proposed area for disturbance) and a degraded section of Vegetation association 1 (near a proposed access road and topsoil pile). The proposed disturbance footprint will not impact on the main population of this species found within Vegetation association 4. A few individuals found in a degraded section of Vegetation association 1 are likely to be impacted by an access road and a topsoil pile but this is unlikely to have a significant impact on the total population. To protect this species, WQS Project staff will be made aware of the appearance and location of populations and plants situated near the disturbance area will be marked.</p> <p>Two introduced flora species, <i>Cucumis myriocarpus</i> (Prickly Paddy Melon) and <i>Solanum nigrum</i> (Black Berry Nightshade), were recorded in the study area. Both of these weed species were recorded in small, isolated populations within highly disturbed areas and neither species is listed on the Department of Agriculture and Food Declared Plants list. The proposed clearing may exacerbate this issue through the spread of seed and propagative vegetative structures during soil disturbance and through transport on mobile mining equipment. Clearing of vegetation from the site during construction also has the potential to introduce additional weed species. These risks will be mitigated through the implementation of management actions including:</p> <ul style="list-style-type: none"> • off road vehicle use will be strictly controlled over the Project area with no driving permitted off designated routes; • consideration of weed control and elimination of small populations where appropriate; • any topsoil removed from areas known to contain weed populations will be stored separately and only reapplied to the area it was removed from to reduce the spread of weed species; and • an induction and ongoing education program for WQS Project staff will reinforce awareness of procedures to prevent and control the spread of weeds. <p>Given the small population size and distribution of these two weed species at the Project, the potential resulting impact is not considered to be significant.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p> <p>Outback Ecology (2012) <i>Western Queen South Gold Project Terrestrial Fauna Desktop Study</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>

Clearing Principle	Background	Source	Variance
	<p>Based on the results of database searches and a review of relevant literature, there is potential for 258 vertebrate species to occur within the Study area, consisting of 23 mammals (14 native), 187 birds, 40 reptiles and eight amphibians. Twelve conservation significant vertebrate fauna species could potentially occur within the Study area.</p> <p>A review of relevant literature and database searches revealed that 12 terrestrial SRE invertebrate species including the conservation significant species Shield-backed trapdoor spider (<i>Idiosoma nigrum</i>) (Vulnerable and Schedule 1) have been recorded within the region surrounding the Project. Of these species, all have low potential to occur in the Study area with the exception of the mygalomorph spider <i>Eucyrtops</i> `MYG131`. The species <i>Eucyrtops</i> `MYG131` is considered to have a medium potential to occur based on the proximity of the collection record to the Study area and the potential for similar habitats to occur within the Study area. The habitat where <i>Eucyrtops</i> `MYG131` was collected is unlikely to be restricted in the landscape.</p> <p>A fauna assessment of the Project area identified five broad fauna habitats, which are common throughout the Western Murchison Bioregion. The proposed development has been positioned in the landscape such that it avoids the more significant fauna habitats wherever possible with no clearing planned for the stony rises and only 2.7 ha of Vegetation association 2 proposed to be cleared. As the broad fauna habitats on site are widely represented throughout the rest of the Western Murchison bioregion, it is highly likely that those priority, threatened or migratory species that may occur within the Study area will also be found within the surrounding region.</p> <p>The Project area displays a reasonable level of biodiversity, however the clearing of native vegetation is not considered significant as:</p> <ul style="list-style-type: none"> the clearing footprint for the Project is limited to 45 ha and previously disturbed areas will be used wherever possible; habitat for conservation significant species including Vegetation association 2 (drainage lines providing fauna habitat) and Vegetation association 4 (habitat for Priority 4 Flora species <i>Dodonaea amplisemina</i>) will be predominantly avoided; habitats are well-represented in the surrounding region, and management actions for weed control will be implemented. <p>Therefore, it is considered the clearing of native vegetation as part of the Project will not have a substantial impact on the level of biodiversity within the Project area or within the sub-region.</p>		
<p>(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 indigenous to Western Australia</p>	<p>The Project has been positioned such that clearing will take place in areas that are already highly degraded from previous disturbance where possible. Any relatively significant fauna habitats such as the drainage line areas (Vegetation association 2) are unlikely to be impacted by the Project and it is unlikely to have a significant impact on fauna surrounding the development. The fauna habitats present on site are common throughout the Western Murchison Bioregion.</p> <p>The clearing of native vegetation will not impact on a significant fauna habitat and will therefore not be at variance to this Principle.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Terrestrial Fauna Desktop Study</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>
<p>(c) - Native vegetation should not be cleared if it includes or is necessary</p>	<p>None of the 80 vascular flora species recorded in the Study area during this and previous studies is listed as Threatened (Declared Rare Flora) at a National or State level. No Threatened Flora (Declared Rare Flora) are listed as occurring in the Murchison 2 bioregion; and given the habitats present and levels of disturbance, none are</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>

Clearing Principle	Background	Source	Variance																																
<p><i>for the continued existence of, rare flora.</i></p>	<p>expected to occur in the Study area.</p> <p>The clearing of native vegetation will not impact on rare flora and will therefore not be at variance to this Principle.</p>																																		
<p>(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.</p>	<p>No Threatened or Priority Ecological communities or communities analogous to these were recorded in the Study area. The nearest conservation significant communities are both stygofauna/groundwater assemblages over 30 km from the WQS Study area and thus it is highly unlikely that they would be impacted by the relatively limited clearing and modifications to surface landforms that are proposed.</p> <p>The clearing of native vegetation will not impact on TECs and will therefore not be at variance to this Principle.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p> <p>Outback Ecology (2012) <i>Western Queen South Gold Project Terrestrial Fauna Desktop Study</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>																																
<p>(e) - Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been significantly cleared.</p>	<p>The Project area is located within the Western Murchison sub-region of the Murchison IBRA bioregion. Approximately 100% of the pre-European vegetation remains within this subregion.</p> <table border="1" data-bbox="439 709 1044 831"> <tr> <td>Pre-European Extent (ha)</td> <td>6,985,503 ha</td> </tr> <tr> <td>Current Extent</td> <td>6,985,503 ha</td> </tr> <tr> <td>% remaining</td> <td>100%</td> </tr> <tr> <td>% current extent in IUCN Class I-IV Reserves</td> <td>0.06%</td> </tr> </table> <p>The 'threshold level' below which species loss appears to accelerate exponentially at an ecosystem level is regarded as being at a level of 30% of the pre-clearing extent of the vegetation type. The proposed clearing will not impact on remnant vegetation communities with less than 30% of their pre-clearing extent remaining, or reduce the extent below the 'threshold level' of 30% of pre-European levels.</p> <p>The vegetation to be cleared has been identified as being part of the following Beard vegetation associations:</p> <ul style="list-style-type: none"> Vegetation Association No. 18 'low woodland, mulga (<i>Acacia aneura</i>)'; and Vegetation Association No. 39 'Shrublands; mulga scrub'. <p>Both of the Beard vegetation associations to be cleared as part of the proposed Project are above the 30% threshold. The proposed clearing will not reduce the extent of any of the Beard vegetation below the 30% threshold level.</p> <p style="text-align: center;">Vegetation associations to be impacted within the Project area</p> <table border="1" data-bbox="439 1388 1712 1724"> <thead> <tr> <th></th> <th>Pre-European area (ha)*</th> <th>Current Extent (ha)**</th> <th>Remaining %**</th> <th>Pre-European % in IUCN Class I-IV Reserves **</th> <th>Approximate area of proposed disturbance (ha)</th> </tr> </thead> <tbody> <tr> <td colspan="6">Beard Vegetation Associations - State</td> </tr> <tr> <td>18</td> <td>19,892,305</td> <td>19,890,275</td> <td>99.99</td> <td>2.13</td> <td>2</td> </tr> <tr> <td>39</td> <td>6,613,569</td> <td>6,613,469</td> <td>100</td> <td>7.25</td> <td>43</td> </tr> </tbody> </table> <p>Furthermore, the Project has been positioned within the landscape such that 19.6 ha of the proposed total 45 ha footprint will occur within areas that have been previously cleared.</p> <p>The overall extent of native vegetation within the Shire of Yalgoo is well above the 30% threshold and the proposed clearing will not significantly reduce the extent of remnant vegetation remaining within the Shire.</p>	Pre-European Extent (ha)	6,985,503 ha	Current Extent	6,985,503 ha	% remaining	100%	% current extent in IUCN Class I-IV Reserves	0.06%		Pre-European area (ha)*	Current Extent (ha)**	Remaining %**	Pre-European % in IUCN Class I-IV Reserves **	Approximate area of proposed disturbance (ha)	Beard Vegetation Associations - State						18	19,892,305	19,890,275	99.99	2.13	2	39	6,613,569	6,613,469	100	7.25	43	<p>Environmental Protection Authority (2000) <i>Environmental Protection of Native Vegetation in Western Australia, Clearing of Native Vegetation, with Particular Reference to the Agricultural Area, Position Statement No.2</i>. prepared by the Environmental Protection Authority, December 2000.</p> <p>Government of Western Australia. (2010). <i>CAR Analysis Report 2009</i>. Accessed July 2012. WA Department of Environment and Conservation, Perth, https://www2.landgate.wa.gov.au/slip/portal/services/files/carreserveanalysis2009.xls</p> <p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>
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	<p>The clearing of 45 ha of Vegetation associations 18 and 39 will not reduce the representative percentages of these vegetation associations below the 30% threshold and therefore the proposal is not considered to be at variance to this principle.</p>		
<p>(f) - Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or a wetland</p>	<p>The Project area is crossed by two ephemeral drainage lines, one of which has been diverted in order to mine the WQS pit. These drainage lines support Vegetation association 2, which comprises a denser tree cover, and likely retains some pools of surface water providing refugia for fauna as the seasons dry out. Approximately 2.7 ha of Vegetation association 2 will be cleared. The flowline vegetation in the eastern side of the study area and a small rocky gorge located near the eastern boundary are in much better condition than the flowlines that will be cleared close to the historical mining disturbance.</p> <p>Drainage lines impacted by the Project will be diverted around cleared areas and stockpiles before rejoining natural drainage lines downstream of mining activity.</p> <p>Given the minimal clearing requirements and the implementation of the drainage line diversions, it is not considered that the proposed clearing will have a significant impact on the vegetation associated with the ephemeral drainage lines. It is therefore considered that the clearing of native vegetation will not be at variance to this Principle.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p>	<p>Not at variance</p>
<p>(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>Land degradation within the WQS Project is the result of historical mining operations and grazing in the area. Surface water flow within the Study area has been modified as a consequence of intercepting flowlines with bunds, waste rock landforms and through clearing. This has lead to several small areas of localised flooding and pooling of water in disturbed areas. The groundwater and surface water assessment completed by MWES recommends management actions to reduce appreciable land degradation as a result of changed surface water flows. Drainage lines will be diverted around cleared areas and stockpiles before rejoining natural drainage lines downstream of mining activity. The northern drainage line will be diverted around the WQS pit with no expected impact on current natural flow rates. The combination of alternative drainage channels and limited overland flow within and adjacent to the Project area will help to minimise the amount of erosion, with the majority of soil erosion being limited to localised areas. The proposed clearing is unlikely to significantly increase infiltration, which may otherwise lead to a rise in groundwater or increase salinity levels within the Project area.</p> <p>While it is likely that some localised erosion of surfaces will occur prior to establishment of vegetation through rehabilitation, those areas proposed for rehabilitation will undergo an improvement in land condition in the long-term. Ramelius anticipate that the post mining land use will be pastoral in accordance with the surrounding activities in the region. The waste rock landforms (WRLs) and the open pits will be permanent features of the landscape. The WRLs will be fenced to enhance the rehabilitation success of the landforms; abandonment bunding around the open pit will prevent inadvertent entry by members of the public. Fencing will be maintained until landforms are relinquished, after which these landforms will be assessed for suitability with the surrounding land use. The objective will be to establish safe, stable, non-polluting post-mining landforms which support vegetation growth and are erosion resistant. It is anticipated that all rehabilitated ecosystems will have the function and resilience indicative of an appropriate analogous ('target') ecosystem as well as the vegetation in rehabilitated areas having values indicative of target ecosystems. The final landscape will likely have the ability to withstand or have the capacity to recover following stochastic occurrences or final land use pressures. A system of progressive rehabilitation and ongoing monitoring will be implemented during and post the life of the Project to ensure the system recovers from disturbance.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p> <p>MWES Consulting (2012) <i>Western Queen South: Groundwater and Surface Water Assessment for Mining and Environmental Applications</i>. Unpublished report to Mt Magnet Gold.</p>	<p>Not at variance</p>

Clearing Principle	Background	Source	Variance
	<p>It is considered that the clearing of native vegetation as part of the Project will not cause appreciable land degradation. Therefore, the proposed clearing is not considered to be at variance to this Principle.</p>		
<p>(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.</p>	<p>There are no nature reserves or environmentally sensitive areas adjacent to the Study area. Dalgara, a DEC managed reserve, is located approximately 10 km to the south. The proposed clearing and mining operations are highly unlikely to have any impact directly or indirectly on the environmental values of this reserve.</p> <p>The clearing of native vegetation under this application will therefore not be at variance to this Principle.</p>		Not at variance
<p>(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.</p>	<p>Historical mining operations and loss of vegetation cover as a consequence of grazing by domestic and feral animals are likely to have already impacted the surface water movement and quality within the Project area. Potential impacts from clearing may occur on riparian vegetation, watercourses, surface water and groundwater. An increase in turbidity from upstream clearing may occur within the short-term but will be isolated and will not result in deterioration in the quality of surface and groundwater within the surrounding regions. Drainage lines will be diverted and contained during the proposed clearing activities in order to maintain flow whilst limiting the risk of fugitive emissions entering the natural environment. The existing diversion of the northern drainage line around the existing WQS pit will be monitored and maintained as required. The diversion is not expected to change the flow rate of the drainage line or to constitute a significant impact at a local or regional scale. Turbidity will be controlled through the use of settling basins, which will intercept flows from mined areas and remove sediment before discharging to natural drainage lines.</p> <p>The proposed WQS waste rock landform is situated between two east-west flowlines but does not intercept them and thus is unlikely to significantly affect surface water movement. Other proposed infrastructure including the ROM pad and topsoil piles have been positioned such that they do not intercept any flow lines. A total of 2.7 ha of flow line vegetation will be cleared for access roads and a section of the camp.</p> <p>There are not any beneficial users of the groundwater surrounding the site.</p> <p>Given the existing disturbance, limited clearing and proposed surface water management, it is considered that clearing of native vegetation will not significantly impact the quality of surface or underground water. The Project will therefore not be at variance to this Principle.</p>	<p>Outback Ecology (2012) <i>Western Queen South Gold Project Level 1 Vegetation and Flora Assessment</i>. unpublished report prepared for Ramelius Resources Limited, Perth Western Australia.</p> <p>MWES Consulting (2012) <i>Western Queen South: Groundwater and Surface Water Assessment for Mining and Environmental Applications</i>. Unpublished report to Mt Magnet Gold.</p>	Not at variance
<p>(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.</p>	<p>Several small areas of the Project that are located within close proximity to existing mining landforms are currently subject to localised flooding and pooling of water as a consequence of modified surface water flows. However, the proposed clearing footprints for the additional waste rock landform, ROM pad and topsoil stockpiles are highly unlikely to cause or exacerbate further flooding or pooling as they have largely been located away from existing flow lines and do not intercept any significant floodplains. Surface water management measures proposed for the Project will ensure that surface water is diverted away from mining infrastructure and back into existing drainage lines.</p> <p>Given the scale of proposed clearing and the low to moderate elevations of the surrounding landscape, the proposed clearing is not likely to impact on the drainage characteristics of the site or larger catchment area, or</p>	<p>MWES Consulting (2012) <i>Western Queen South: Groundwater and Surface Water Assessment for Mining and Environmental Applications</i>. Unpublished report to Mt Magnet Gold.</p>	Not at variance

Clearing Principle	Background	Source	Variance
	<p>cause or exacerbate flooding in the local area.</p> <p>The Project will therefore not be at variance to this Principle.</p>		

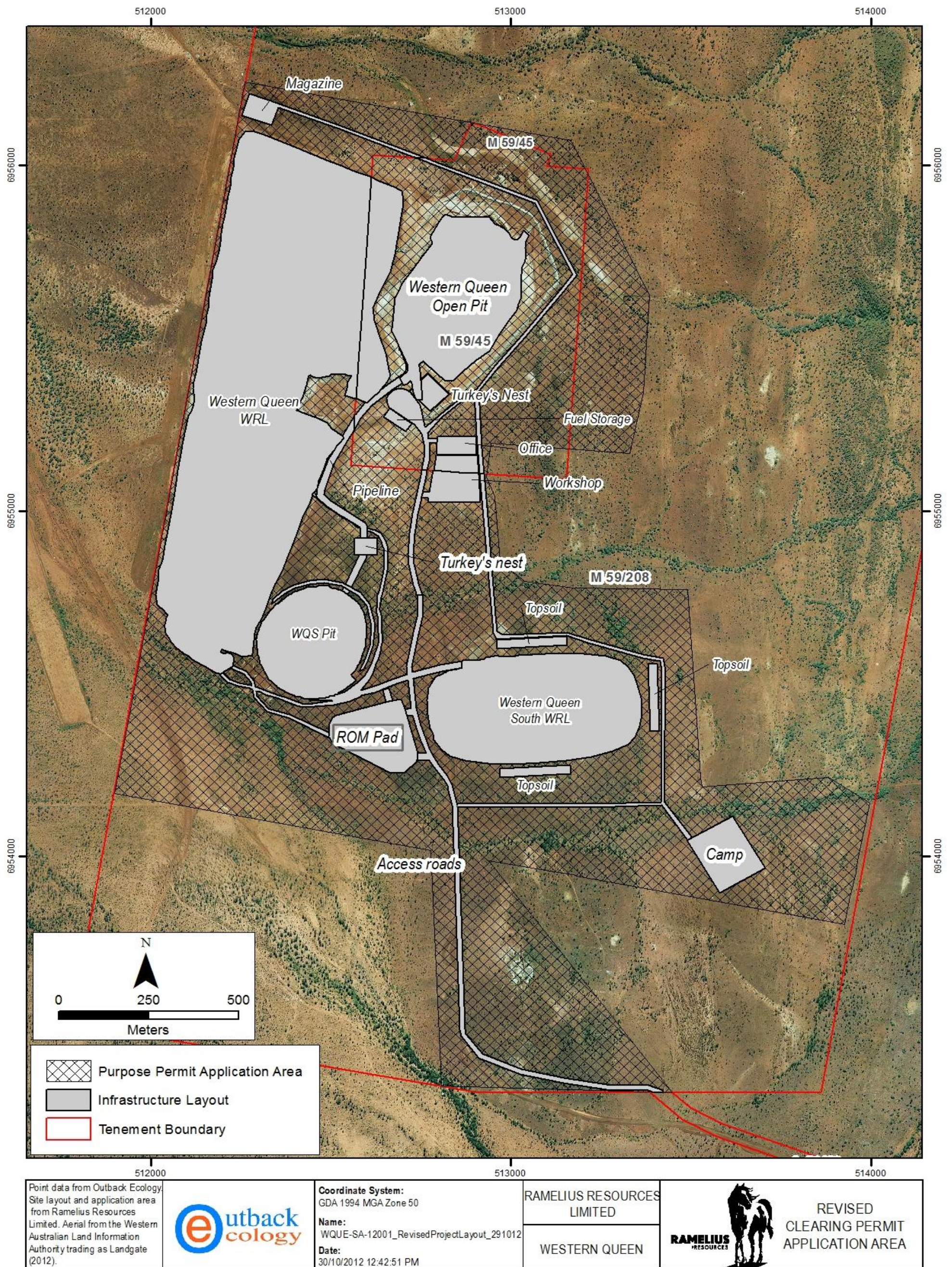


Figure 1: Revised Purpose Permit Application Area for Western Queen South Project