



OUT16/23752

Ms Rose-Anne Hawkeswood
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

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Dear Ms Hawkeswood

**Modification 3 to Syerston Project – Scandium Oxide Modification (DA 374-11-00 MOD 3)
Comment on the Response to Submissions Report**

I refer to your email dated 9 June 2016 to the Department of Primary Industries with respect to the above matter. Comment has been sought from relevant divisions of DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the request and provides the following comments and recommendations with detailed comments from DPI Water at **Attachment A**:

- Crown roads impacted on by Mining Project operations should be purchased and closed. Applications to close should be lodged within 6 months of Project Approval.
- If the Mining Lease isolates Crown land then an easement through the Mining Lease will be necessary. If necessary Floating Easement that allows for variation of access route depending on mining activity can be negotiated.
- DPI Water requests the following condition be included in any determination issued for the Syerston Nickel Cobalt Project.
 - The proponent prepares a Water Management Plan in consultation with DPI Water prior to commencement of activities. This is to address the site water balance, water demands and sources, water metering and monitoring, borefield management, open cut pit groundwater interception and impact management, sediment and erosion control, pipeline installation and watercourse diversions.

For further information please contact Tim Baker, Senior Water Regulation Officer (DPI Water - Dubbo office) on 02 6841 7403 or via email tim.baker@dpi.nsw.gov.au

or Kaie Falkenberg, Coordinator Client Services (DPI Lands & Natural Resources – Newcastle office) on 02 4920 5008 or via email kaie.falkenberg@scs.nsw.gov.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'M Isaacs', with a stylized flourish at the end.

Mitchell Isaacs
Director, Planning Policy & Assessment Advice

Attachment A

Modification 3 to Syerston Project – Scandium Oxide Modification (DA 374-11-00 MOD 3) Comment on the Response to Submissions Report Detailed comments – DPI Water

The Department of Primary Industries - Water (DPI Water) has reviewed the response to submissions document for the Syerston Nickel Cobalt Project Modification 3. The following comments and recommended conditions of consent are provided to assist in determination of the project.

Comments

Water Supply

- The RTS has indicated the water demands for the initial production phase of the modified project amount to 1.75ML/day. It is recognised this is within the proponent's current licensed water entitlement at the borefield of approximately 8.64ML/d. However no further detail has been provided to indicate security of supply from the borefield since the original pump testing 16 years ago, or how potential impacts to existing users would be considered in mitigation and contingency options. As the original EIS predicted a potential drawdown at existing bores of up to 15m for an extraction rate of 17.5ML/d, the need to consider the viability of management options and whether these may impact on water supply for the overall project is important.
- DPI Water advises any proposal for new bores to supplement the water supply will be subject to the relevant water sharing plan which will include distance conditions and the need to consider third party impacts based on existing trade criteria.
- As outlined by the Coffey Geosciences (2000) report titled 'Water Supply Borefield – Hydrogeological Investigation' the water level drawdown impact to shallow bores installed in the Cowra Formation is likely to be variable. The 'Model 1' simulation which does not factor adjacent Lachlan River leakage predicted that bores adjacent to the borefield installed to depths of less than 30 m below ground could fail ("dry up"). In order to address this Scandium21 Pty Ltd (Scandium) included in the RTS that there would be an inclusion of amelioration measures for potentially impacted groundwater users in the Borefield Impact Management Plan (BIMP). The development of the BIMP prior to commencement of operations is supported by DPI Water.
- The BIMP will be required to consider impacts to bores assessed during the original assessment in 2000 and any additional bores installed since that date. It will need to recognise that management of impacts by way of make good provisions may include measures such as replacing and equipping impacted bores OR where appropriate provide direct supply (e.g. via pipeline) of water to impacted bore users. Instances where requirement for direct supply may include where the available water bearing alluvium has been dewatered or where pumping due to local drawdown becomes cost prohibitive.
- DPI Water supports the proponent's commitment to obtain appropriate water licences for demand in excess of the current entitlement of 3154 unit shares in the Upper Lachlan Alluvial (Zone 5) Groundwater Source. It is recognised this is not required for the initial phase, however no understanding has been demonstrated of the ability to acquire this entitlement within the current water market. It is recommended this be considered at the earliest opportunity to understand the ability for future increased production and be detailed within a Water Management Plan.

Open Cut Pits

- The RTS has indicated the approved two open cut pits and the small scale pits proposed for this modification will not intersect the local groundwater table. DPI Water is concerned with this description as detail of monitoring bore logs included in the original EIS indicates
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water was intersected between 33 and 43 m in close proximity to the pits. As the small scale pits are proposed to be 30m deep they may not intersect groundwater, however the larger pits proposed to a depth of 55m would be likely to intersect groundwater. A hydrogeological assessment of inflows will be required to quantify the inflows and associated impacts to water users and the aquifer both during mining and for any ongoing take once mining ceases and an equilibrium is reached. A groundwater monitoring, mitigation and contingency plan as part of a Groundwater Management Plan is recommended to understand and manage groundwater impacts in relation to the open cut pits.

- The proponent will be required to hold sufficient entitlement to account for any water take in the open cut pits prior to this take occurring. This entitlement will need to be held in the Lachlan Fold Belt groundwater source of the Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources. It is recommended a commitment and process to obtain this entitlement be detailed within a Water Management Plan.

Recommended Condition of Consent

DPI Water requests the following conditions be included in any determination issued for the Syerston Nickel Cobalt Project.

1. The proponent prepares a Water Management Plan in consultation with DPI Water prior to commencement of activities. This is to address the site water balance, water demands and sources, water metering and monitoring, borefield management, open cut pit groundwater interception and impact management, sediment and erosion control, pipeline installation and watercourse diversions.

End Attachment A