23 January 2019

Ground Floor, Suite 01, 20 Chandos Street
St Leonards, NSW, 2065
PO Box 21
St Leonards, NSW, 1590

T +61 2 9493 9500
F +61 2 9493 9599
E info@emmconsulting.com.au

www.emmconsulting.com.au

David Kitto
Executive Director
Resource and Energy Assessments
NSW Department of Planning and Environment
320 Pitt Street
Sydney NSW 2000

Re: SSI 9208: Exploratory Works for Snowy 2.0 – Amendment to water supply

Dear David,

As discussed, groundwater bores are proposed to be constructed within Lobs Hole to enable water supply for pre-construction and construction activities for Exploratory Works for Snowy 2.0. These bores would provide water to the project prior to water being supplied from Talbingo Reservoir (or tunnel inflows) as proposed within the environmental impact statement (EIS) and response to submissions (RTS) for Exploratory Works. As such, the construction of the bores forms part of the proposed activities for Exploratory Works.

The bores would be constructed within an already disturbed area of Lobs Hole (refer to Figures 1 and 2). The bores would be constructed to depths of approximately 60 metres below ground level (mBGL) in the main groundwater bearing unit (Ravine Beds) within proximity to the Exploratory Works project area. The groundwater quality is fresh and described as slightly alkaline with typically low concentrations of most dissolved metals, which is typical of alpine areas where groundwater is readily recharged via rainfall and snow melt.

The Ravine Beds is the groundwater bearing unit which will be intercepted by the exploratory tunnel. A groundwater assessment of Exploratory Works was undertaken as part of the EIS to determine impacts associated with the construction of the exploratory tunnel. This assessment, which is contained in Appendix N of the EIS, indicated that the construction of the exploratory tunnel would draw up to a maximum of 354 megalitres per year (ML/year) of groundwater from the Ravine Beds. The assessment, based on groundwater modelling at this maximum rate (354 ML/year), indicated that extraction of water at this rate would not have an impact on the local environment, including the local groundwater source, groundwater users, baseflows to nearby rivers and tributaries and groundwater dependent ecosystems (GDEs).

The EIS also stated that water extracted as a result of tunnelling activities would be accounted for via a licence obtained via the controlled allocation release from DoI Water when additional water was released for the Lachlan Fold Belt Murray Darling Basin Fractured Rock Groundwater Source.

The EIS states that groundwater extraction as a result of tunnelling works would not occur until some six to eight months after construction of Exploratory Works commences. Groundwater extraction rates as a result of tunnelling would start small and only reach 354 ML/year when the full extent of the exploratory tunnel is completed. This full extent is not expected until some 30 months after tunnelling works start.

Groundwater extraction for construction purposes would be undertaken prior to tunnelling works. The amount of groundwater extracted for construction purposes would be limited to less than 219 ML at peak construction demand, and therefore will not exceed the maximum of 354 ML/yr modelled as part of the groundwater assessment. Extraction of water from the bores will be reduced if required when tunnelling commences so that groundwater extraction from Exploratory Works (tunnel and water supply bore) never exceeds 354 ML/yr. Given this, based on the groundwater assessment undertaken as part of the EIS for Exploratory Works, groundwater impacts associated with the construction and operation of a bore for the purposes of water supply for pre-construction and construction purposes would not have an impact of the local environment.

On 6 November 2018 Snowy Hydro registered an interest to apply for the right to apply for an aquifer access licence under the Controlled Allocation Order (Various Groundwater Sources) 2017 (the order). The registration was for 354 unit shares within the Lachlan Fold Belt Murray Darling Basin Fractured Rock Groundwater Source. Snowy Hydro received a notification from the NSW Government on 8 November advising of a successful registration of interest.

EMM understands that these unit shares will be acquired by February 2019, with a letter from the NSW Access Regulator stating that our customer receipt number is RO12-18-106, and that they will write to all participants 'by Dec/Jan'.

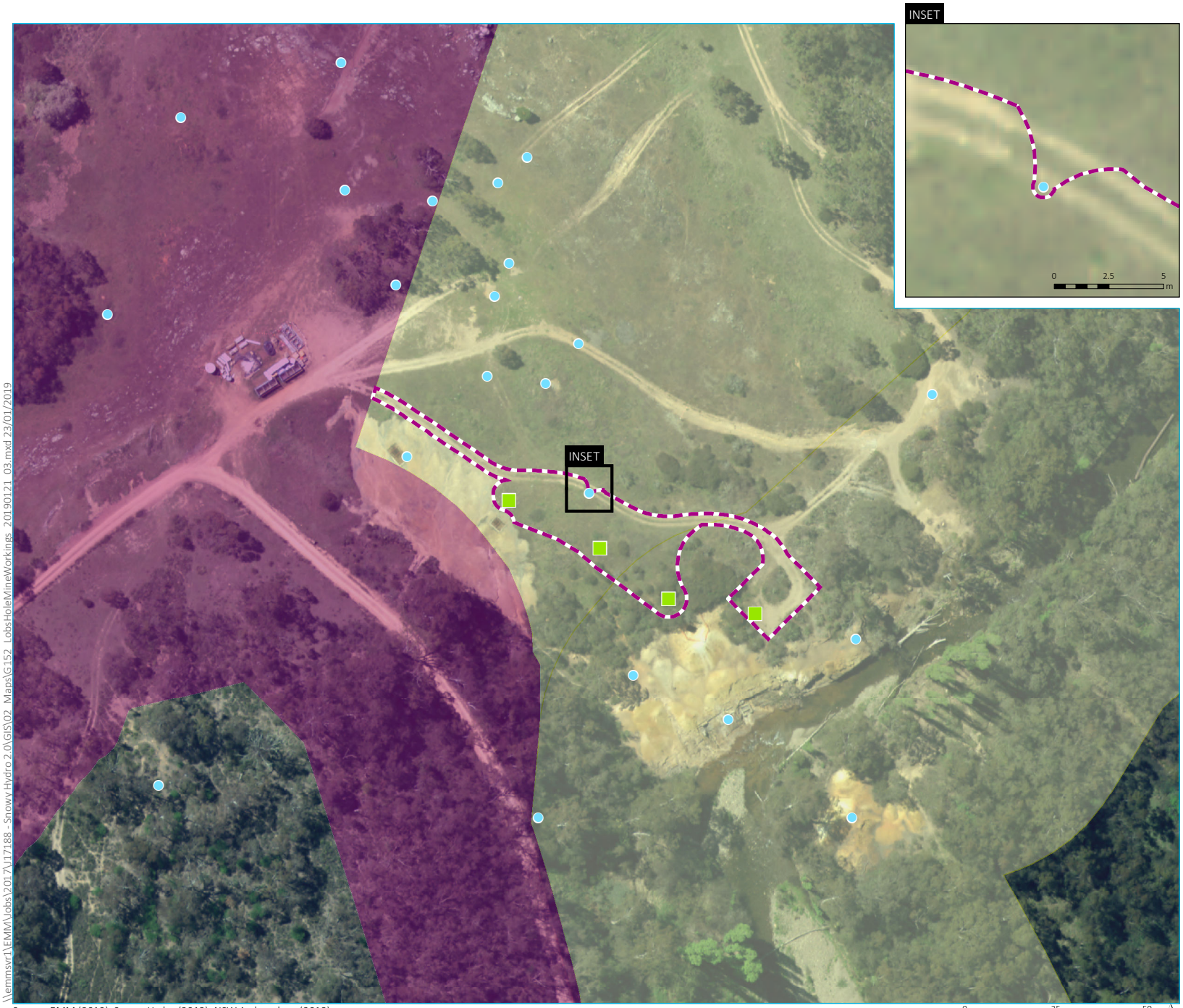
The drilling of the proposed bores would have limited surface disturbance with disturbance activities limited to the drilling of the bores. All soil, rock and water intercepted through drilling will not come into contact with the surrounding environment. Soil, rock and water will be contained at surface in above-ground tanks and transported to a licensed waste disposal facility.

Proposed target drilling locations will avoid recorded heritage items (refer to Figures 1 and 2). One heritage item (R8 – a depression likely associated with historical activities) is adjacent to the access road for proposed target drilling locations shown in Figure 1. This item will be avoided during the activities.

Please do not hesitate to contact the undersigned should you require any further information on this matter.

Yours sincerely

Brett McLennan
Director
bmclennan@emmconsulting.com.au



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Source: EMM (2019); Snowy Hydro (2018); NSW Archaeology (2018)

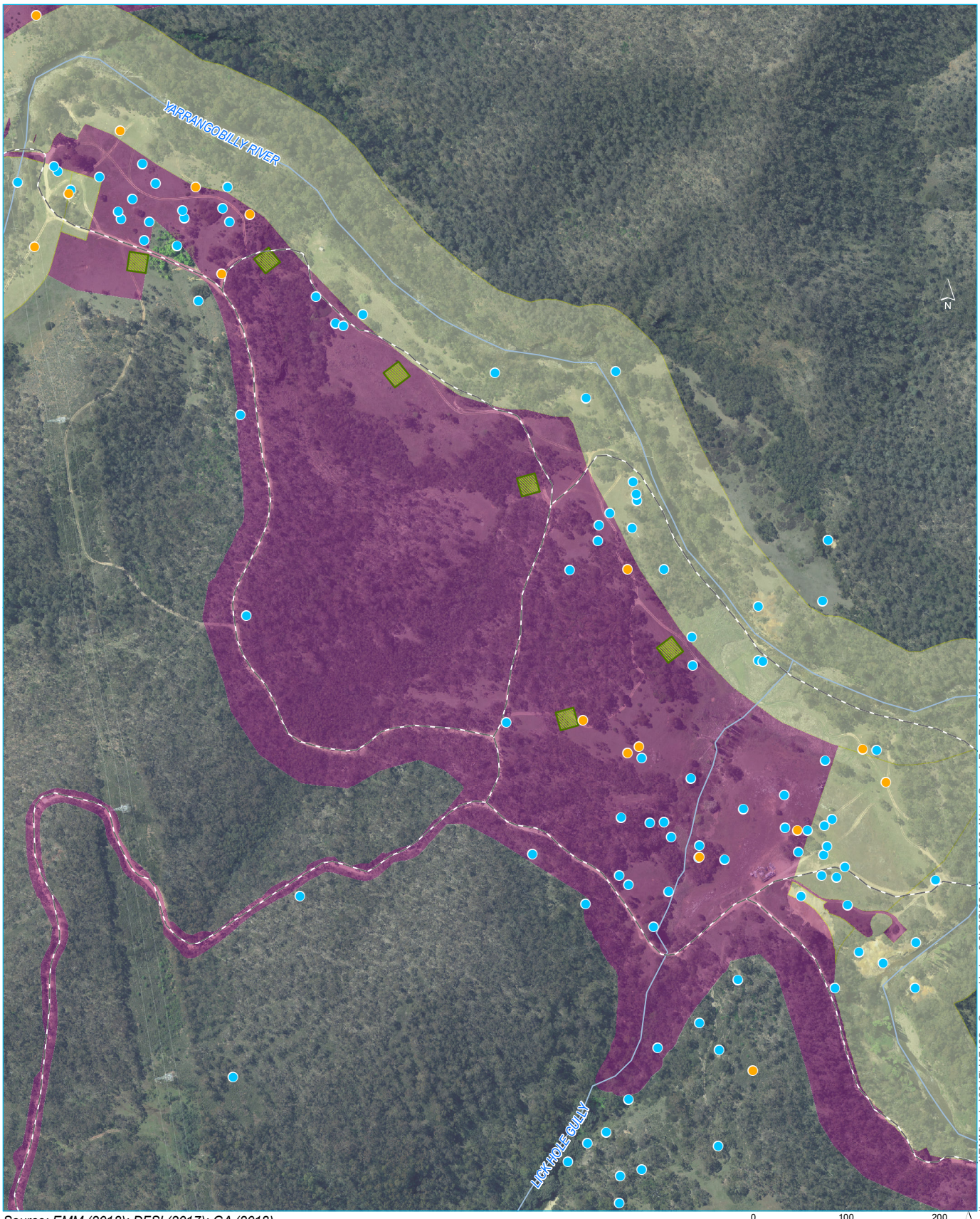
GDA 1994 MGA Zone 55

Proposed water supply locations

Snowy 2.0
Exploratory Works
Figure 1

snowy 2.0

EMM
creating opportunities



Source: EMM (2018); DFSI (2017); GA (2018)

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KEY

- Aboriginal heritage item
- Historic heritage item
- Existing track
- Watercourse
- Target drilling areas
- Disturbance footprint
- Avoidance footprint

Proposed water supply locations

Snowy 2.0
Exploratory Works
Figure 2

snowy2.0

EMM creating opportunities

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