



OUT19/15781

Andy Nixey
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Planning & Assessments
NSW Department of Planning and Environment

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Dear Mr Nixey

**Ivanhoe Estate Redevelopment - Concept (SSD-8707)
Response to Submissions (RTS)**

I refer to your email of 20 November 2019 to the Department of Planning, Industry and Environment (DPIE) Water and the Natural Resources Access Regulator (NRAR) about the above matter.

The following recommendations for you to consider are provided from DPIE Water and NRAR. Please note Crown Lands, the Department of Primary Industries (DPI) – Fisheries and DPI - Agriculture all now provide a separate response directly to you.

DPIE – Water and NRAR

DPIE - Water reiterates the majority the previous recommendations made in its EIS submission, noting that the proponent has “accepted” or “noted” them in the RTS. These recommendation as are provided in **Appendix A**.

NRAR’s recommendations provided on the EIS were not addressed in the RTS. The proponent is to address these, which are as follows:

- Works on waterfront land should be carried out in accordance with the Guidelines for Controlled Activities (2019) <https://www.industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities>.
- A Vegetation Management Plan/Rehabilitation Management Plan should be developed to identify the management of the riparian zones around Shrimptons Creek. This plan should be developed in consultation with NRAR.

Any further referrals to DPIE – Water and NRAR can be sent by email to:

landuse.enquiries@dpi.nsw.gov.au.

Any further referrals to (a) Crown Lands; (b) DPI – Fisheries; and (c) DPI – Agriculture can be sent by email to: (a) lands.ministerials@industry.nsw.gov.au; (b) ahp.central@dpi.nsw.gov.au; and (c) landuse.ag@dpi.nsw.gov.au respectively.

Yours sincerely

Simon Francis
Senior Project Officer, Assessments
Water – Strategic Relations
10 February 2020

The following recommendations are provided from DPIE - Water:

- The results of all groundwater investigations and monitoring at the site should be used to describe the impacts of the Stage 1 redevelopment to surrounding groundwater users (including the environment).

Furthermore, this should be provided as collated raw data and interpreted information in a completion report to NRAR prior to the commencement of Stage 2 of the redevelopment.

Groundwater Licencing

- 1 Appropriate authorisations should be sought through the Natural Resources Access Regulator (NRAR) to account for any take of groundwater that is likely to exceed 3 ML.

Groundwater Management and Design

- 2 Groundwater shall not be pumped or extracted for any purpose other than temporary dewatering during the period of construction at the site identified in the development application.
- 3 The design and construction of each building must prevent any take or inflow of groundwater after the completion of construction by making any below-ground levels fully watertight for the anticipated life of each building (i.e. full tanking of each basement is required).
- 4 Sufficient permanent drainage shall be provided beneath and around the outside of each watertight structure to ensure that natural groundwater flow is not impeded, and:
 - a. any groundwater mounding at the edge of the structure shall be at a level not greater than 10 % above the level to which the water table might naturally rise in the location immediately prior to the construction of the structure;
 - b. any elevated water table is more than 1.0 m below the natural ground surface existent at the location immediately prior to the construction of the structure; and
 - c. where the habitable, accessible or occupiable part of the structure (not being footings or foundations) is founded in bedrock or impermeable natural soil then the requirement to maintain groundwater flows beneath the structure is not applicable.
- 5 The methods and the materials used for construction shall be designed to account for the likely range of salinity and pollutants which may be dissolved in groundwater beneath the site.
- 6 The method of disposal of pumped water shall be nominated (i.e. reinjection, drainage to the stormwater system or discharge to sewer) and a copy of the written permission from the relevant controlling authority shall be provided in a report to be provided to NRAR with the application for the authorisation. The disposal of any contaminated pumped groundwater (sometimes called "tailwater") must comply with the provisions of the Protection of the Environment Operations Act 1997 and any requirements of the relevant controlling authority.
- 7 Contaminated groundwater—i.e. constituent concentrations above appropriate National Environment Protection (Assessment of Site Contamination) Measure (NEPM 2013) thresholds—shall not be reinjected into any geological formation. The reinjection system design, if proposed, and treatment methods to remove contaminants shall be nominated and included in a report to be provided to NRAR with the application for the authorisation. The quality of any pumped water that is to be reinjected must be demonstrated to be compatible with, or improve, the intrinsic or ambient groundwater in the vicinity of the reinjection site.

Groundwater Monitoring

- 8 All groundwater monitoring bores installed across the site shall be subject to in-situ permeability testing (rising head tests or falling head tests) at each stage of the development to inform the calculations of groundwater take by each excavation and the results shall be reported to NRAR.
- 9 Groundwater quality testing of samples taken from outside the footprint of the proposed construction, with the intent of ensuring that as far as possible the natural and contaminant hydrochemistry of the potential dewatered groundwater is understood, shall be conducted on a suitable number of samples and tested at a certified laboratory.
 - a. Details of the sampling locations and the protocol used, together with the test results accompanied by laboratory test certificates.
 - b. An assessment of results must be done by suitably qualified persons with the intent of identifying the presence of any contaminants and comparison of the data against accepted water quality objectives or criteria for the intended dewatering purpose.
 - c. In the event of adverse quality findings, the proponent must develop a plan to mitigate the impacts of the hydrochemistry on the dewatered groundwater.
- 10 Daily measurements of water levels from monitoring bores outside basement support walls, weekly measurements of groundwater and discharge water quality, and weekly measurements of pumped volumes shall be recorded by the proponent throughout the construction phase of the development.

END APPENDIX A