



Department of Industry

OUT19/2141

Tim Stuckey
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Resource and Energy Assessments
NSW Department of Planning and Environment

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Dear Mr Stuckey

Shoalhaven Hydro Expansion Project (Geotechnical Explorations) (SSI 9816) EIS Exhibition

I refer to your email of 15 February 2019 to the Department of Industry (DoI) in respect to the above matter. Comment has been sought from relevant branches of Lands & Water and Department of Primary Industries.

The department provides the following comments and recommendations for consideration in assessment of the proposal.

DoI – Water and Natural Resources Access Regulator

- It is likely that drilling 650+ metres will encounter thin and shallow coals. The proponent should identify gas risk and undertake due diligence.
- Any monitoring bore would be required to target one formation at a time only and not be screened across several formations. Groundwater conceptualisation requires each aquifer to be characterised independently.
- Vibrating wire piezometers (VWP) are not recommended as they tend to drift, potentially leading to the bore becoming lost. VWPs can also have low data reliability, and data cannot be checked to determine if the measurements are accurate.
- Assuming the bores are cored, logging of the core should include information on water inflows, fracturing and whether the fractures are open/closed.
- Packer testing or similar hydraulic tests should be done to support aquifer characterisation.
- Aquitards should be characterised for hydraulic conductivity
- It may be necessary to consider separately monitoring two aquifers at a same location to characterise relative head difference and gradient. This would be for the proponent to define with respect to impact on environmental values.

Any further referrals to Department of Industry can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

Yours sincerely

Liz Rogers
Manager, Assessments
Lands and Water - Strategy and Policy
20 March 2019