

Johnstaff
Level 8, 16 O'Connell Street
Sydney NSW 2000

30 August 2012

Attention: Nic Johnston

Dear Nic

RE: Bega Valley Health Service Redevelopment Proposal - Staged Development Submission - Groundwater

As requested, this note provides an outline of the strategy to be employed by Coffey Geotechnics Pty Ltd (Coffey) to undertake a groundwater assessment in support of the Bega Valley Health Service Development.

The modified Director General's Requirements (DGRs) for the Bega Valley Health Service Redevelopment Proposal (SSD 5307-2012), dated 10 August 2012, apply to three submissions as follows:

- A Staged Development Submission.
- A Stage 1 Submission (early works such as civil works, car parking, roads, and drainage).
- A Stage 2 Submission (the main hospital building).

The DGRs that apply to the Staged Development Submission and Stage 1 Submission that are relevant to groundwater assessment require addressing the relevant planning provisions, goals, and strategic planning objectives in the following:

- The NSW Groundwater Policy Framework Document
- The NSW Groundwater Quality Protection Policy

The following policy principles are required by the NSW Groundwater Policy:

- An ethos for the sustainable management of groundwater resources should be encouraged in all agencies, communities and individuals who own, manage or use these resources.
- Non-sustainable resource uses should be phased out.
- Significant environmental and/or social values dependent on groundwater should be accorded special protection.
- Environmentally degrading processes and practices should be replaced with more efficient and ecologically sustainable alternatives.

- Where possible, environmentally degraded areas should be rehabilitated and their ecosystem support functions restored.
- Where appropriate, the management of surface and groundwater resources should be integrated.
- Groundwater management should be adaptive, to account for both increasing understanding of resource dynamics and changing community attitudes and needs.
- Groundwater management should be integrated with the wider environmental and resource management framework, and also with other policies dealing with human activities and land use, such as urban development, agriculture, industry, mining, energy, transport and tourism.

The DGRs also require that the following policy principles of the NSW Groundwater Quality Protection Policy be addressed:

- All groundwater systems should be managed so that the most sensitive identified beneficial use (or environmental value) is maintained.
- Town water supplies should be afforded special protection against contamination.
- Groundwater pollution should be prevented so that future remediation is not required.
- For new developments, the scale and scope of work required to demonstrate adequate groundwater protection shall be commensurate with the risk the development poses to a groundwater system and the value of the resource.
- A groundwater pumper shall bear the responsibility for environmental damage or degradation caused by using groundwaters that are incompatible with soil, vegetation or receiving waters.
- Groundwater dependent ecosystems will be afforded protection.
- Groundwater quality protection should be integrated with the management of groundwater quantity.
- The cumulative impacts of developments on groundwater quality should be recognised by all those who manage, use, or impact on the resource.
- Where possible and practical, environmentally degraded areas should be rehabilitated and their ecosystem support functions restored.

The groundwater in the area is also subject to the Bega Water Sharing Plan. The site may also be subject to the aquifer interference policy.

The groundwater at the site is not known to be a significant water resource, as the site is elevated from the Bega River alluvial plain and unconsolidated sediments appear to be much less permeable than the Bega River alluvium on the lower plains. Some of the policy principles may therefore not be applicable. Groundwater pumping is not likely to occur at the site, and the Bega Town water supply is located a significant distance from the site.

Arup conducted a groundwater impact assessment for the site (attached, dated 23 August 2012) based on a literature review. The assessment concluded that:

- The proposed hospital development is unlikely to impact the local groundwater system.
- Any risks which arise during construction can be fully mitigated by the adoption of appropriate site water management arrangements.
- Consideration should be given to the incorporation of sustainable drainage systems in the building design so as to maintain existing rates of surface infiltration.

Johnstaff has advised Coffey that the proposed Staged Development and Stage 1 construction works will incorporate water sensitive urban design, minimal excavation depths, native landscaping, and sediment and erosion controls during construction.

Based on the available information, Coffey agrees that the risk of impacts on the groundwater system is low, however a groundwater assessment of the site is being conducted. The field component of the assessment, specifically aimed at addressing the DGRs, has been recently completed. The assessment will identify areas where the development may impact groundwater conditions. If potential impacts are assessed, we will make recommendations in order that the development complies with the policies.

For and on behalf of Coffey Geotechnics Pty Ltd



Paul Tammetta

Associate Hydrogeologist

Attachment A: Technical Note, Bega Valley Health Service Redevelopment, Groundwater Impacts Assessment, 23 August 2012