Your ref: DA675/2017

Via email: brian.gibson@lakemac.nsw.gov.au

briangibson@lakemac.nsw.gov.au

Lake Macquarie City Council

07 December 2017

Dear Brian,

DA675/2017 Mixed Use Development (Residential Flat Building, Commercial Premises and Associated Works) WarnersBay

I refer to Kerry Lee's email of 7 December 2017 on the above subject. Based on the information provided in the geotechnical report, proposed development requires a water supply work approval under section 90 of the *Water Management Act 2000*. General Terms of Approval for a water supply work is attached. Once granted approval will be subject to the terms and conditions of the *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016.*

A water access licence with a nominated water supply work is required to account for the water take.

Please direct all related correspondence to: Water Regulation – Coastal, Water NSW, **PO Box 398, PARRAMATTA NSW 2124.**

Yours Faithfully

Hemantha De Silva
Senior Water Regulation Officer
WaterNSW
Phone 02 49042525

General Terms of Approval for a

Water Supply Work under the *Water Management Act 2000* (WM Act).

1. An approval for a water supply work must be obtained for the take of groundwater
2. A water access licence with a nominated water supply work is required to account for the water take.
3. A water licence is required under the WM Act where any act causes:

   (a) the removal of water from a water source;

   (b) the movement of water from one part of an aquifer to another part of an aquifer; or

   (c) the movement of water from one water source to another water source.

   Subject to exemptions, a water licence is required whether water is taken for consumptive use or whether it is taken incidentally.
4. Sufficient permanent drainage shall be provided beneath and around the outside of the watertight structure to ensure that natural groundwater flow is not impeded.
5. Construction methods and material used in and for construction shall be designed to account for the likely range of salinity and pollutants which may be dissolved in groundwater, and shall not themselves cause pollution of the groundwater.
6. Approval holder must comply with requirements of the Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016.
7. The following shall be included in the initial report:

(a) a map of the site and its immediate environs depicting the water table (baseline conditions) shown relative to the topography and approved construction footprint from the surface level and below.

(b) details of the present and potential groundwater flow paths and hydraulic gradients in and around the site; the latter in response to the final volumetric emplacement of the construction.

8. The Applicant must assess the likely impacts of the dewatering activities on other groundwater users or any groundwater dependant eco-systems.
9. A reasonable estimate of the total volume of groundwater to be extracted shall be calculated and included together with details and calculation methods for the parameters and supporting information to confirm their development or measurement (e.g. permeability determined by slug-testing, pump-testing or other means).
10. The method of disposal of pumped water must be nominated (i.e. reinjection, drainage to the stormwater system or discharge to sewer) and a copy of the written permission from the relevant regulatory authority shall be provided in the initial report. 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 regulatory authority.
11. Contaminated groundwater shall not be reinjected into any aquifer.
12. Engineering measures designed to transfer groundwater around and beneath the basement shall be incorporated into the basement construction to prevent the completed infrastructure from restricting pre-existing groundwater flows.

13. Piping, piling or other structures used in the management of pumped groundwater shall not create a flooding hazard or induce mounding of groundwater. Control of pumped groundwater is to be maintained at all times during dewatering to prevent unregulated off-site discharge.

14. Pumped groundwater shall not be allowed to discharge off-site (e.g. adjoining roads, stormwater system, sewerage system, etc.) without the controlling authority's approval and/or owner's consent/s. The pH of discharge water shall be managed to be between 6.5 and 8.5. The requirements of any other approval for the discharge of pumped groundwater shall be complied with.

15. Dewatering shall be undertaken in accordance with groundwater-related management plans applicable to the excavation site. The requirements of any management plan (such as acid sulfate soils management plan or remediation action plan) shall not be compromised by the dewatering activity.

16. The location and construction of groundwater extraction works that are decommissioned are to be recorded in the completion report. The method of decommissioning is to be identified in the documentation. Refer to https://www.water.wa.gov.au/__data/assets/pdf_file/0005/1796/Minimum-construction-guidelines-for-water-bores-in-Australia-V3.pdf

17. Following cessation of the dewatering operations, the applicant shall submit the completion report which shall include:

(a) detail of the volume of water taken, the precise periods and location of water taken, the details of water level monitoring in all of the relevant bores; and

(b) a water table map depicting the aquifer's settled groundwater condition and a comparison to the baseline conditions; and

(c) a detailed interpreted hydrogeological report identifying all actual resource and third party impacts, including an assessment of altered groundwater flows and an assessment of any subsidence or excessive settlement induced in nearby buildings and property and infrastructure.