

Our Ref: PSM5872-008L REV2

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Attention: Juan Lewis

Dear Juan

**RE: MAMRE ROAD DATA CENTRE CAMPUS (706-752 MAMRE ROAD, KEMPS CREEK)
SALINITY MANAGEMENT PLAN**

1. Introduction

This letter presents salinity management advice for the proposed data centre development located at 706 – 752 Mamre Road, Kemps Creek, NSW (the Site).

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 709347)
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

Inset 1 presents the site locality plan.



Inset 1: Nearmap Aerial Photograph of the site (dated 3 September 2025)

2. Background

This plan has been prepared to address Section 2.9 of the Mamre Road Precinct Development Control Plan 2021 prepared by DPIE (dated November 2021). The requirement is reproduced below:

“Development applications shall include a detailed salinity analysis and Salinity Management Plan”.

3. Objective

The objective of this salinity management plan (SMP) is to effectively manage site salinity, to minimise the effect of the proposed development on the salinity processes and to protect the proposed development from salinity damage.

4. Salinity and Sodicty Assessment

PSM have previously undertaken a salinity and sodicity investigation at the Site in 2020 (ref: PSM5872-005R dated 20 October 2025).

It is assessed that the soils on site are classified as “non-saline” to “slightly saline”, including:

- Four (4) samples in “non-saline”
- Two (2) samples in “slightly saline”.

It is assessed that the NATURAL SOIL on the site is classified as “Non-sodic” to “Highly sodic”.

The report also presented laboratory test results for soil aggressivity assessment as follows:

- pH of the soil samples analysed ranged from 5.1 to 8.9, with an average of 7.1
- The concentration of soluble sulphate in samples analysed ranged from 10mg/kg to 190 mg/kg
- The concentration of chlorides in samples analysed ranged from <10 mg/kg to 390 mg/kg
- The moisture content ranged from 9.1 to 19.3 %
- The resistivity of the soil samples ranged from 2,500 ohm.cm to 12,800 ohm.cm.

5. Discussion

5.1 Development Components

This SMP addresses the components of the proposed development at construction stage for the permanent works. Recommendations regarding the following development components are provided in the following sections:

- Earthworks
- Imported soils
- Gardens and landscaped areas
- Roads, footpaths and hardstand areas
- Surface water, stormwater and drainage
- Durability of concrete structures in contact with the ground
- Durability of steel structures in contact with the ground.

5.2 Earthworks

We understand the proposed earthworks will comprise up to approximately 21 m deep cut and 16 m deep fill in some areas. The design and construction of the earthworks should consider the following recommendations:

- Importation of soil as per Section 5.3 of this letter
- Vegetation cover should be estimated and maintained on permanent batters upon completion to control erosion
- The final surface of all areas of the development should be graded to prevent the ponding of surface water
- Erosion control of temporary batters, stockpiles and disturbed areas should be planned prior to undertaking the earthworks and implemented during the earthworks. Consideration should be given to:
 - Grading and sealing partially completed surfaces
 - Installation of clearly visible fencing and traffic control measures to prevent unnecessary trafficking of areas and ensuring site disturbance
 - Establishing set vehicular access points and roads
 - Protecting stockpiles (temporary vegetation or mulching) where these are to be left in place for long durations.
- Sediment control shall be implemented by means of sediment traps and silt fencing where considered necessary.

5.3 Importation of Soil

It may be required to import soil onto site. Materials to be imported to site should be assessed for suitability for the intended use. Highly saline or contaminated soils should not be imported to site.

5.4 Gardens and Landscaped Areas

The proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. Garden and landscaped areas are of limited extent. The design and construction of the gardens and landscaped areas should consider the following recommendations:

- Selection of plant species should consider the soil conditions, including moderate salinity, relatively poor fertility and clayey low permeability soil profiles. Promotion of successful revegetation is likely to require use of nutrient rich topsoil. Saline topsoils should not be imported to site
- Potential for water logging should be minimised by:
 - Adopting plant species with minimal watering requirements

- Adopting ‘waterwise’ gardening principles
- Minimising use of potable water in landscaped areas
- Properly designed and implemented irrigation systems
- Establishment of perennial species and deep rooted trees.

5.5 Roads, Footpaths and Hardstand Areas

As stated, the proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. The design and construction of roads, footpaths and hardstand areas should consider the following recommendations:

- Roads, footpath and hardstand surfaces should be graded, and the grades maintained at all times to prevent ponding of surface water at locations where this can result in infiltration into the underlying soils (e.g. pavement joints)
- Connections between the roads, footpath and hardstand surfaces and the surface water and stormwater drainage infrastructure should be designed, constructed and maintained to restrict infiltration into underlying soils
- Services that are to be located below the roads, footpath and hardstand surfaces should be installed, where practical, at the time of construction
- Provision for a damp-proof course or membrane beneath slabs should be considered by the slab designer.

5.6 Surface Water, Stormwater and Drainage

Surface water, stormwater and drainage design should aim at restricting infiltration into the ground resulting in groundwater recharge. The design and construction of surface water, stormwater and drainage measures should thus consider the following recommendations:

- Disturbance of natural drainage patterns should be reduced. Where these are disturbed or altered appropriate artificial drainage should be installed
- Stormwater and surface water should be managed to restrict infiltration
- Temporary water retaining structures used during construction should be managed to restrict infiltration
- Stormwater and surface water infrastructure should be designed and constructed to minimise the likelihood of leakage
- Guttering and down pipes should be connected and maintained
- Surface water runoff should be directed around all exposed surfaces, temporary stockpiles and landscaped areas.

5.7 Durability of Concrete Structures in Contact with The Ground

In designing structural concrete elements in contact with the ground the design should consider the results of the salinity assessment and the durability requirements in AS2159:2009 Piling “Design and Installation” and AS3600:2018 “Concrete Structures”.

Both these standards provide guidance on minimum concrete grade/strength and minimum cover requirements.

Based on the salinity and aggressivity test results (ref: PSM5872-005R dated 20 October 2025), it is recommended that:

1. The design of structural concrete members in contact with the ground (excluding piles) adopt an A2 exposure classification as defined in AS3600:2018.
2. The design of concrete cast in situ piles adopt a mild classification as defined in AS2159:2009.

5.8 Durability of Steel Structures in Contact with The Ground

Table 6.5.2(C) of Australian Standard AS2159:2009, Piling – Design and Installation provides criteria for exposure classification for steel piles based on resistivity, soil and groundwater pH, and chlorides in soil and groundwater. On the basis of soil chlorides, resistivity and pH testing completed we assess the exposure classification for steel piles in the soil to be “Non-aggressive”.

6. Sign off

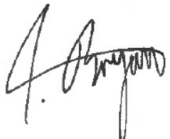
We recommend the following:

- The designer(s) and contractor(s) responsible for construction of the various development components be required to sign-off their design and the as built, certifying that:

“The works have been designed/constructed having given appropriate consideration to the recommendations in the SMP (Ref. PSM5872-008L REV2 dated 24 November 2025)”.

The designer and contractors should contact PSM during the works if they have any queries with regards to the requirements in the SMP or if conditions significantly differ from those described in this SMP.

Yours Sincerely



BRENDAN TA
GEOTECHNICAL ENGINEER



JUNO LIANG
ASSOCIATE GEOTECHNICAL ENGINEER



AGUSTRIA SALIM
PRINCIPAL