

**Proposal for Groundwater Assessment &
DMP****Proposed Mixed Use Development****810 Pacific highway, Gordon NSW****Attention: Graham Keeping
Sterling Project Solutions Pty Ltd
Email: graham@sterlingprojects.com.au****4 February 2025**

Project: 233042.00

Douglas Partners Pty Ltd
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Proposal for Groundwater Assessment & DMP

Proposed Mixed Use Development

810 Pacific highway, Gordon NSW

1. Introduction

Douglas Partners Pty Ltd (Douglas) is pleased to provide this proposal for a groundwater and dewatering management plan (DMP) associated with a proposed mixed use development located at 810 Pacific highway, Gordon NSW.

We understand that the proposed development will include demolition of the existing building (currently underway), followed by construction of a new 8 storey mixed-use development comprising commercial space, residential apartments and ground floor retail space. The structure will have a loading dock and 5 basement levels. It is understood that the Finished Floor Level (FFL) of the previously proposed basement Level 4 was RL 107.97 m. The FFL for basement Level 5 is not known currently and has assumed to be 4 m below Level 4, that is, about RL 104 m. The depth below surface level is expected to range from 16 to 25 m (deepest towards Northeast corner of the site).

Previous investigations undertaken on adjacent locations indicate that the site is mostly underlain by fill and soil, which could be deep towards Pacific Highway end and underlain by shale bedrock. Groundwater levels were measured in standpipes in 2016. The levels varied from RL 109 m to RL 116 m, higher than the expected Bulk Excavation Level (BEL) from the proposed Level 5. It is expected that Water NSW and/or council will require demonstration that dewatering does not affect adjacent structures and that discharging of groundwater is within acceptable quantity and quality limits.

2. Scope of Work

We recommend that the groundwater levels measured in 2016 are verified by installing new monitoring wells as per our proposal 233042.00.P.002.Rev0 dated January 2025.

The level of detail of the groundwater inflow assessment will depend on the requirements of Council and Water NSW. If the investigation confirms groundwater above the expected BEL for a 5 level basement and a license for temporary dewatering is required from Water NSW then we expect a Dewatering Management Plan (DMP) will be required. The DMP will outline the groundwater investigation and monitoring to be carried out on site during the works and provide predictions of groundwater inflow rates, monitoring methods and frequency, water quality and impacts due to dewatering.

Based on the above, the following scope of works is proposed:

- Groundwater Inflow Assessment - the level of modelling will depend on the requirements of the assessors. This can be either 2D or 3D modelling predicting inflow rates and water level drawdown outside the basement. Hydraulic conductivity of the rock mass will be required for use in the analysis (refer to Douglas proposal 233042.00.P.002.Rev0 dated January 2025).

- Groundwater sampling and testing in monitoring wells to assess groundwater quality including common contaminants and groundwater aggressivity tests (aggressivity testing has been included in our proposal 233042.00.P.002.Rev0 dated January 2025).
- Prepare a DMP report with predicted inflow rates in the short term and long term (in case a drained basement is feasible), and monitoring requirements. The DMP will only be generic, as a detailed plan would require input from the future dewatering contractor who will determine the equipment, discharge points, storage tank size and locations, emergency contact details, etc. This may require the plan to be updated at a later stage, which is not included in the current scope of works.

3. Fees and Conditions

We have been engaged to provide specialist advice only. We have not allowed in our proposed Scope of Work to prepare Regulated Designs or Design Compliance Declarations as defined under the Design and Building Practitioners Act 2020 (NSW) (DBP Act). If you require us to prepare a Regulated Design and Design Compliance Declaration, you will need to advise us before commencement of the Services to allow the required supervision by a registered Professional Engineer to be undertaken. The Scope of Work and relevant fees will then be adjusted accordingly.

3.1 Fee Estimates

Based on our experience, lump sum costs are summarised in Table 1. The final cost of the work will be based on a re-measurement of actual quantity and duration of work carried out at the fixed rates provided in the Section 3.2.

Table 1: Estimated Costs

Description	Lump Sum (ex GST)
2D Numerical Groundwater Inflow Modelling (subject to requirements)	\$5,000
3D Numerical Groundwater Inflow Modelling (subject to requirements)	\$10,000
Groundwater sampling and testing (contaminants only)	\$3,500
Dewatering Management Plan	\$5,000

We are providing 2D and 3D numerical modelling as alternatives, subject to Water NSW requirements.

3.2 Standard Hourly Rates

Any additional work (such as meetings, follow-on design advice, checking structural drawings etc) will be charged at our standard hourly rates for engineers, technical and administrative staff as shown in Table 2 (ex GST).

Table 2: Staff Standard Hourly Rates (ex GST)

Title	Unit	Rate
Principal Engineer	hour	\$460
Senior Associate Engineer	hour	\$360
Associate Engineer	hour	\$315
Project Engineer	hour	\$280
Geotechnical Engineer/Engineering Geologist	hour	\$215
Administrator / Draftsperson	hour	\$150

3.3 Conditions

In the preparation of this proposal, the following expectations have been made:

- Groundwater can be sampled from the existing standpipes, if required.
- If 2D modelling is required, the client can provide drawing files in .dxf format of the proposed cross-section to be modelled, showing the existing and proposed excavation/structure. For 3D modelling, .dxf files of the basement geometry will be provided.
- Survey drawing of the site showing surface levels relative to Australian Height Datum.
- Existing development drawings (plan and sections).
- Proposed development drawings (plan and sections).
- The numerical modelling is limited to one run with a single sensitivity analysis.
- Any additional liaison with the design team, Water NSW or any other meetings required and not included for can be carried out at hourly rates.

4. Programme

4.1 Numerical modelling

A 2D model will typically require one week from the date of instruction to completion, while a 3D model will typically require three weeks.

4.2 DMP

The DMP can generally be carried out within one week after the modelling and the groundwater sampling/testing has been completed.

Our proposal should be read in conjunction with our standard conditions of engagement and the other attachments to this letter. Together, these will constitute the terms of our agreement and the basis on which we will provide any Services requested by you. These terms will remain in operation until, and if, we formally execute an alternative written agreement with you (or your organisation) for this work. We reserve the right to consider and negotiate any terms we may be asked to agree to. Payment for services performed by us cannot be withheld on the basis that Douglas Partners must first agree to separate terms.

If you wish us to proceed with the assessment, could you please complete, sign and date the attached Services Order form and return it to us. To avoid any doubt once we have provided this letter to you and if you then request us to provide any services, the terms of this letter and its attachments will bind both you and us in connection with all those services performed by us at your request even if not signed by you unless we agree otherwise in writing. While we may agree in good faith to review other conditions of engagement, such review and any acceptance may be subject to additional fees.

We thank you for your enquiry and look forward to being of service.

Yours sincerely

Douglas Partners Pty Ltd



Ernesto Vega

Senior Geotechnical Engineer

Reviewed by



Hugh Burbidge

Principal

Attachments: Services Order
Engagement Terms

Services Order

To Douglas Partners Pty Ltd

Attention Ernesto Vega

Email ernesto.vega@douglaspartners.com.au

Please proceed with the work as detailed in Douglas' proposal listed below for the fee estimate provided.

Project Groundwater Assessment & DMP, Proposed Mixed Use Development

Address 810 Pacific highway, Gordon NSW

Proposal 233042.00.P.002.Rev0 dated 4 February 2025

We confirm that we are responsible for payment and all invoices should be sent to the address below.

Company or Name	
ABN/ACN	
Address	
Phone	
Email/Fax	
Authorised by	Name: Title: who hereby warrants their authority to do so on behalf of
Signature	
Date	

Engagement Terms

These terms apply to the Services and, with the Proposal, constitute the agreement between Douglas Partners and the Client. Review and acceptance of any other terms may be subject to payment of additional fees.

Unless agreed in writing, these terms apply to the exclusion of any inconsistent provision, including those which may appear on any order form or other document issued by the Client. The Proposal and these terms apply to any variations which may be agreed or ordered and to any supplementary work required on the project.

1. Definitions and interpretation

1.1 In these terms:

'Agent' means an entity engaged by the Client to act on its behalf and with its authority to arrange for or direct the Services, including any entity holding itself out as the Client's agent.

'Client' means the entity that the Services are to be provided for.

'Consequential Loss' means any:

- (a) loss or damage of an indirect or consequential nature; or
- (b) loss of production, loss of revenue, loss of profit, loss of use, loss of goodwill, loss of reputation, business interruption of any nature, loss of business or business opportunities, loss of anticipated savings, wasted overheads, costs of project delay, loss or corruption of data or information or anything beyond the normal measure of damages.

'Douglas Partners' means Douglas Partners Pty Ltd (ABN 75 053 980 117).

'Proposal' means Douglas Partners' written offer to provide consulting or other services which accompanies these terms.

'Services' means the services to be provided by Douglas Partners to the Client, as detailed in the Proposal.

'Site' means the location that is the subject of the Services.

1.2 Any legislation referred to in these terms is to that legislation as amended, re-enacted or replaced and includes any subordinate legislation issued under it.

2. Role of Douglas Partners

2.1 Douglas Partners will perform the Services:

- (a) as set out in the Proposal, subject to **clause 3**;
- (b) to the standard of skill, care and diligence reasonably expected of a consultant providing services of a similar nature at the same time and in a similar locality under similar terms.

2.2 Douglas Partners may appoint sub-consultants, sub-contractors or agents to perform any part of the Services.

3. Role of Client

3.1 The Client must, at its own cost, arrange for and provide to Douglas Partners all information and items necessary or reasonably required to enable Douglas Partners to perform the Services, including (where relevant):

- (a) approvals for access, contact details, and keys;
- (b) survey plans and data regarding underground services;
- (c) information relevant to the Client's brief, e.g. details of proposed construction, loadings, construction levels and cross-section drawings;
- (d) any relevant information regarding the presence of hazardous substances onsite or any prior Site usage that may have led to contamination; and
- (e) any information, plans and approvals relevant to cultural heritage and other protected areas on or around the Site.

3.2 Douglas Partners is entitled to rely on information supplied by the Client. The Client must promptly inform Douglas Partners if any information is found or reasonably suspected to contain any inaccuracies or is inadequate to enable Douglas Partners to properly perform the Services.

3.3 Douglas Partners may suspend its obligations if it is unable to obtain any information reasonably required to properly perform the Services by written notice to the Client.

4. Role of Agent

4.1 If the Proposal is accepted by an Agent, the Agent warrants that it has the Client's authority to accept these terms and indemnifies Douglas Partners against any liability arising from the Client's obligations. If the person who accepts the Proposal does not indicate in writing that they are an Agent, they are taken to be the Client and responsible accordingly.

5. Fees

5.1 The Client will, in accordance with **clause 6**, pay to Douglas Partners:

- (a) the fees and reimbursable expenses set out in the Proposal or otherwise agreed; and
- (b) applicable goods and services tax (**GST**). (Unless an amount is expressed to be GST inclusive, GST will be added at the applicable rate.)

5.2 Fees may be indicated as a lump sum or fee estimate calculated by a schedule of rates. Douglas Partners reserves the right to review its rates and will notify the Client at least 1 month before any change takes effect.

5.3 Fee estimates are based on Douglas Partners' understanding of the required scope of work, its expectation of sub-surface conditions and any legislative requirements at the Proposal date. Any statements regarding Douglas Partners' expectation of sub-surface conditions in the Proposal are not to be relied on. If undisclosed or unexpected conditions are encountered or legislative requirements change, additional work not allowed for in the Proposal may be required. Douglas Partners will endeavour to advise the Client and seek its approval before undertaking work that exceeds a fee estimate.

5.4 If activity is required outside the Proposal's scope, Douglas Partners may charge for such additional work at current standard hourly rates for personnel and equipment. Hire of outside services, if necessary, may be charged at least cost plus 10% for procurement, unless otherwise agreed.

5.5 If the Proposal is not accepted within 3 months, Douglas Partners reserves the right to provide a revised schedule of rates or lump sum for the Services.

6. Terms of Payment

6.1 Douglas Partners will render invoices monthly or on completion of the Services. Payment is due in full, without setoff, within 30 days. Douglas Partners will charge interest at 1.5% per month on any invoices unpaid after 30 days.

6.2 Requests for Douglas Partners to sign another document or agree to other terms is not a valid reason for withholding payment for Services provided. Douglas Partners reserves the right to suspend Services for non-payment.

6.3 If the Client disputes any part of an invoice, it must notify Douglas Partners in writing of the disputed amount within 14 days of receiving the invoice and pay any undisputed amount by the due date on the invoice.

6.4 Douglas Partners is not liable for any loss caused by unauthorised cyber-activity. Any invoice that remains unpaid due to interception by a third party is still due and owing to Douglas Partners.

7. Insurance

7.1 Douglas Partners will effect and maintain professional indemnity insurance, public liability insurance and all other insurances which are appropriate for the Services.

8. Limitation of Liability

8.1 To the extent permitted by law:

- (a) Douglas Partners' liability to the Client (or Agent) arising from or in connection with the Services (whether under contract, statute, in tort, equity or otherwise), including liability pursuant to the *Competition and Consumer Act 2010 (Cth)*, is limited in aggregate to the greater of either

Engagement Terms

\$500,000 or 3 times the fees received for the relevant Services (up to a maximum of \$3,000,000);

- (b) Douglas Partners is not liable for any Consequential Loss;
- (c) Douglas Partners is not liable for any loss or damage to the extent that it arose from an act or omission of the Client, Agent or any other party;
- (d) Douglas Partners is deemed to have been discharged from all liability arising from or in connection with the Services or these terms (whether under contract, statute, in tort, equity or otherwise) on the expiration of 3 years from the date of completion of the Services;
- (e) for any failure to comply with a guarantee under the *Competition and Consumer Act 2010 (Cth)* or these terms, Douglas Partners' liability is limited to either re-supplying the Services or the cost of having the Services re-supplied.

9. Intellectual Property

- 9.1** Douglas Partners owns intellectual property rights in all designs, documents, data, analyses and materials created by Douglas Partners. Douglas Partners grants a royalty-free, non-exclusive licence to the Client to use that intellectual property for the purpose of the project for which it is prepared. The Client is not permitted to assign, transfer or convey this licence without the prior written consent of Douglas Partners.
- 9.2** If Douglas Partners reasonably suspects that the Client has breached **clause 6**, Douglas Partners may revoke this licence and require the Client to return or destroy the material.
- 9.3** The Client must not alter or amend any material produced by Douglas Partners.

10. Termination

- 10.1** These terms may be terminated by either party:
 - (a) if a party commits a material breach of its obligations and this is not remedied within 21 days of receiving written notice requiring the breach to be remedied; or
 - (b) with at least 28 days' written notice.
- 10.2** Douglas Partners must be paid for all Services performed to the termination date plus reasonable termination expenses.

11. Disputes

- 11.1** Any disputes must first be mediated. This provision does not prevent Douglas Partners from instituting legal action at any time to recover moneys owing. The Client must pay the costs and expenses (including mercantile agent's costs and legal costs) incurred by Douglas Partners in collecting payment of any amount not paid by the due date.

12. Field Work

- 12.1** The Client warrants that the Site will:
 - (a) be reasonably accessible (including ensuring appropriate measures are in place for cultural heritage and protected areas);
 - (b) be safe; and
 - (c) have an adequate supply of water for Douglas Partners and its personnel, subconsultants, subcontractors and agents to conduct required field work.
- 12.2** Standby rates will be applicable for delays associated with access, providing water, inclement weather, bogging of vehicles and equipment or any other delays not readily avoided. The Client is ultimately responsible for service location and cultural heritage searches and protection on the Site, and indemnifies Douglas Partners against any associated cost or liability.
- 12.3** If reasonable access and safety is not provided onsite, Douglas Partners may suspend the Services for the period specified in a written notice given to the Client. Remobilisation and standby costs incurred as a result of suspension or delay caused by issues including access, inadequate water supply, inclement weather, bogging of vehicles and equipment, will be borne by the Client.
- 12.4** The unit rates provided are for work within the reasonable capacity of the proposed equipment, using the techniques specified. Unless stated otherwise, no provision has been made for drilling hard filling, concrete, boulders, cobbles or

gravels. Equipment, cones, or drilling bits damaged or lost in hard filling, concrete, gravels, cobbles or boulders will be charged at cost plus 10%, unless otherwise agreed. Time spent attempting to recover such equipment will be charged at the appropriate rates for the personnel and equipment.

- 12.5** Samples and cores obtained from the investigation will be retained, unrefrigerated without charge for 3 months following the submission of the report, unless the Client requests an extension for an agreed fee.

13. Reliance

- 13.1** Reports and documentation are provided for the exclusive use of the Client at a specific time, purpose and project. They should not be used by or relied upon for other projects or purposes on the Site or by a third party without Douglas Partners' written consent.
- 13.2** Douglas Partners is not responsible for interpretations or conclusions drawn from the report or test data, which are not otherwise supported by an express statement or conclusion in the report, nor any onsite advice not confirmed in writing.
- 13.3** Due to the nature of Douglas Partners' work, it cannot certify the application or interpretation of the Services, including in relation to construction or site conditions, except where specifically agreed in advance and on appropriate terms.

14. Site Investigations

- 14.1** Douglas Partners is not responsible for the adequacy of its recommendations when they are used in the field without Douglas Partners being retained to observe construction. The Client acknowledges that sub-surface conditions between sampling locations may vary, which requires re-evaluation of previous recommendations.

15. Earthworks Testing

- 15.1** Written test reports will be provided with NATA endorsement where appropriate. Unless otherwise agreed, earthworks reports will not contain interpretive comment or advice. Engineering reports providing interpretive comment or an overview of results, can be provided where specifically requested and at an agreed fee.

16. Governing Law

- 16.1** This agreement is governed by the laws of the State or Territory of the Douglas Partners office in which the Services are performed.