



Our Ref: PSM5665-017L

6 February 2025

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Attention: Ben Broadhead

Dear Ben

**RE: MCCRAE LANDSLIDE - FACTUAL GEOTECHNICAL AND GROUNDWATER INVESTIGATION - FEE PROPOSAL**

**1. Introduction**

PSM is pleased to present our fee proposal to provide a factual geotechnical and groundwater investigation for the landslide at 10-12 View Point Road, McCrae (the Property). This fee proposal has been prepared following the letters of instruction issued on 17 and 24 January 2025 from Harwood Andrews.

**2. Background**

PSM have performed multiple site walkovers including a site walkover on 30 January 2025 to understand site access requirements and constraints.

From the site walkovers and reviewed documents, PSM understand the following:

- ☐ An initial minor landslide occurred at the Property on 5 January 2025.
- ☐ A further larger landslide occurred at the Property on 14 January 2025.
- ☐ The State Emergency Service and Mornington Peninsula Shire Council (MPSC) evacuated up to 19 properties.

**3. Scope of Work**

The proposed scope of work captured by this proposal comprises the following:

1. Geotechnical and Groundwater Investigation.
2. Factual Reporting.

**3.1 Geotechnical and Groundwater Investigation**

The aim of the geotechnical and groundwater investigation is to collect factual information of the ground profile, groundwater conditions and the near surface influence of services around the landslide.

PSM proposes to complete the following scope of works:

- One (1) Non-Destructive Testing Hole (NDT) excavated to a maximum depth of 4.0m below ground level or the invert level of the service pipe/trench fill, whichever is shallower.
  - Plumber's tracing dye will be used in NDT01 to trace the downstream outlet of the water source.
  - One standpipe will be installed in NDT01 to measure long term groundwater levels.
  - Water samples will be collected for water chemistry testing. This will be collected from a separate shallow augered borehole with a standpipe installed.
- Up to six (6) Boreholes (BHs) drilled to a maximum depth of 30m below ground level or 5m into at least low strength granite, whichever is shallower.
  - Vibrating Wire Piezometers (VWPs) will be installed in each of the boreholes to measure long term groundwater levels. The VWPs at three BHs will be connected at the surface to dataloggers. Two of these dataloggers will be installed on private property (10-12 View Point Road and 6 View Point Road), and the other datalogger will be installed on public property in front of 5 View Point Road.
  - Soil samples will be collected for laboratory testing including Consolidated Undrained (CU) triaxial, particle size distribution, Atterberg limit and moisture content tests.
  - Water samples may be collected for water chemistry testing around BH01, BH02 and BH03. This will be collected from a separate shallow augered borehole with a standpipe installed, drilled adjacent to the boreholes.
- Up to six (6) Cone Penetration Tests (CPTs) drilled to a maximum depth of 30m below ground level or prior refusal, whichever is shallower.
  - All CPTs will include pore pressure readings (CPTu).
  - These CPTs will be performed adjacent to the boreholes.

Figure 1 presents the proposed locations of the investigation.

### 3.1.1 Methodology

Each scope item will employ their own methodology as follows:

- For the NDTs, we will employ a vacuum excavation truck specialised for non-destructive drilling.
- For the BHs, we will employ a track mounted rig to perform direct push continuous sampling to collect soil samples followed by triple tube coring to recover rock samples. All holes will be grouted back to collar level upon completion, except where standpipes are installed. At a later stage, when these standpipes are decommissioned they will be backfilled with grout.
- For the CPTs, we will employ a track mounted rig specialised for cone penetration insitu testing.

All investigation locations will be measured relative to existing site features, and we will engage a surveyor to measure the collar levels following completion of the fieldwork.

Additionally, the investigation locations will be "scanned" by an electronic service locator as an indication for the presence of buried utilities prior to drilling. We have already reviewed the available drawings of buried services on Site provided by MPSC, and reviewed the Dial Before You Dig (DBYD) drawings.

A PSM Principal Geologist/Geotechnical Engineer will be present during the works on a full-time basis to:

- Direct the drilling/excavation
- Provide field logs of the materials encountered
- Collect samples for laboratory testing
- Take photographs of any recovered soil and rock cores
- Install VWPs
- Undertake Point Load Strength Index (PLSI) tests on any recovered rock core. We have allowed for PLSI testing to be undertaken at 1 to 1.5m intervals.

### 3.1.2 Groundwater Monitoring

VWPs will be installed to monitor groundwater levels. We have allowed for one site visit following the investigation to manually re-measure groundwater levels where dataloggers are not connected. For the three BHs (BH01, BH02 and BH03) with VWPs connected to the datalogger, automated ongoing monitoring data will be remotely accessible.

### 3.1.3 Assumptions

The following assumptions have been considered for this scope of work:

- The proposed fieldwork can be undertaken during normal business hours, i.e. (7am to 5pm Monday to Friday).
- The rig will be left on site and will not have to be removed or demobilised from the drilling location between each day of drilling.
- The vacuum excavation truck will be supplied by MPSC.
- No allowances for vandalism or sabotage of equipment have been made.
- No specific environmental controls are required for the fieldwork.
- Traffic management where required will be supplied by MPSC.
- The fieldwork can be undertaken with standard PPE.
- No permits are required for the fieldwork
- MPSC will coordinate permission from the various property owners.
- No allowances for delay due to property owners' permissions. Standby rates may be incurred and directly passed on.

### 3.2 Factual Reporting

Following completion of the fieldwork, PSM will provide a report including the factual geotechnical and groundwater results including photographs and appendices of supplementary reports.

## 4. Fees and Basis of Engagement

Our estimated fees to undertake the items discussed in Section 3 is presented in Table 1. We have separated the estimated fees for the sub-contractors and equipment/testing required for the fieldwork.

Work outside the scope above (e.g. meetings) are proposed to be undertaken on a time and expense basis based on our rates in Appendix A.

**Table 1 – Fee Breakdown**

Item	Comments	Fee (Excl. GST)
PSM Geotechnical Site Investigation and Report	PSM fees	I&S
Service Locating Subcontractor	Disbursements	
BH Subcontractor		
CPT Subcontractor		
Water Chemistry Testing Subcontractor		
Surveying Subcontractor		
Lab Testing Supplier		
VWP Equipment Supplier		
LIDAR Survey		
Historical Aerial Photos Supplier		
Total		

## 5. Timing

Upon receiving approval, we can commence the fieldwork, which is currently organised to begin:

- For NDT excavation on the week starting 10 February 2025.
- For BH and CPT drilling on the week starting 17 February 2025.

We can issue our factual report within three weeks of completing the site work subject to the turnaround of laboratory testing results.

Should there be any queries, please do not hesitate to contact the undersigned.

**Yours Sincerely**

**DRAFT**

**DANE POPE  
PRINCIPAL**

Encl	Figure 1	Proposed Geotechnical and Groundwater Investigation Plan
	Appendix A	Schedule of Rates and Terms of Agreement – July 2024



**Legend**

**Proposed Site Investigation Locations**

- BH
- CPT
- NDT

**SEW Services**

- Water Main Pipe
- Water Main Fitting/Valve
- Water Main Hydrant
- Sewer Main Pipe
- Sewer Main Maintenance Hole

**Cadastral**

- Cadastral Boundaries

NOTES:  
1. Aerial imagery taken on 30 December 2024 from Nearmaps.

N

02550 m

Scale 1:1,000

Map Projection:  
Horizontal Datum:  
Grid: EPSG:7855

Created By:  
PSM

Revision:  
A

Date:  
05 Feb 2025

Paper Size:  
A3

PSM

HARDWOOD ANDREWS  
10-12 VIEW POINT RD, MCCRAE  
PROPOSED GEOTECHNICAL  
AND GROUNDWATER  
INVESTIGATION PLAN

# **Appendix A**

## **Schedule of Rates and Terms of Agreement – July 2024**



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## SCHEDULE OF RATES AND TERMS OF AGREEMENT – JULY 2024

PSM provides services on the basis of hourly rates and disbursements in accordance with the following schedule and the attached Standard Terms of Agreement unless different rates and terms are agreed on a project specific basis.

### RATES (AUD):

Principal		) per hour
Associates		) per hour
Senior Engineers/Geologists		) per hour
Engineers/Geologists	I&S	) per hour
Draftsperson		) per hour
Engineering Assistants		) per hour
Project Administrator		) per hour

Rates for Legal matters such as briefing lawyers and barristers and provision of expert evidence are 1.5 times standard rates.

### DISBURSEMENTS INCLUDE:

Travel expenses*		
Courier, freight, postage		
Photography, report printing		
Laboratory testing and field equipment		
Research materials (e.g., maps)		
Training, induction, medicals		
Kilometrage		
Other authorised contractor expenses		
Senior Personnel travel time (greater than six (6) hours)		
Standby time (greater than six (6) hours)		

I&S

In addition to above list, additional disbursement may include specialist software and hardware, which costing will be included in the proposal (Commission).

\*Includes airfares, taxis, visa application, meals, parking, toll, car hire, and accommodation. Business class airfares will apply for Senior Personnel.

GST at 10% is applied to the above rates and costs.

## STANDARD TERMS OF AGREEMENT

### Agreement

1. The contractual relationship ("**Agreement**") between PSM and the client ("**Client**") is constituted by:
  - a. These Standard Terms of Agreement ("**Terms**")
  - b. The letter that accompanies these Terms ("**Commission**"); and
  - c. Any other document the parties have agreed in writing forms part of this Agreement.
2. The Client shall be deemed to have accepted that this Agreement applies to the Services on the earlier of:
  - a. The date of the Commission; and
  - b. Substantial commencement by PSM of the Services.

### PSM Responsibilities

3. PSM shall provide to the Client the consulting engineering services described in the Commission, together with such other services as may be agreed from time to time "**Services**" on the terms and conditions of this Agreement.
4. In providing the Services, PSM shall exercise the degree of skill, care and diligence normally exercised by consulting engineers in similar circumstances at the time the Services are provided.

### Client Responsibilities

5. The Client shall provide to PSM:
  - a. Briefings, documents and all other information and/or materials concerning the Client's requirements for the Services
  - b. Directions, instructions, and decisions, sufficient to enable PSM to perform the Services in accordance with this Agreement; and
  - c. PSM is entitled to rely on any such documents and materials, information, directions, instructions and decisions.
6. The Client must:
  - a. Procure sufficient access to any premises or sites necessary for PSM to perform its obligations in accordance with this Agreement; and
  - b. Promptly give written notice to PSM of its representative who is deemed to have full authority to act on its behalf for all purposes in connection with the Services.

### Payment

7. The Client shall pay to PSM the fee and the reimbursable expenses ("**Fee**") as set out in the Commission.
8. PSM shall invoice the Client on a monthly progress billing basis.
9. All monies payable by the Client to PSM shall be paid within 30 days of invoice. Monies not paid within that period shall attract interest from the date of invoice until payment at the rate applicable to PSM's operating overdraft with its principal bankers plus a further 3%. In addition, the Client will be responsible for all debt recovery and legal costs incurred by PSM, plus a further 3% on such costs.

### Variations

10. If the Client proposes a change to the scope of the Services, PSM may notify the Client whether the proposed change can be effected and, if so, provide PSM's estimate of the:
  - a. Cost of the proposed change; and
  - b. Effect on the time for performance of the Services, including any date for completion of the Services.
 The Client may by written notice accept PSM's estimate, in which case the Services, the Fee and the time for performance of the Services are adjusted accordingly.

11. If a new law or change in law after the date of PSM's proposal necessitates a change to the Services, then the extent to which the Services are changed by that legislative requirement shall be a deemed change to the Services and the Fee and the time for performance of the Services are to be adjusted by a reasonable amount and period respectively.
12. If PSM is delayed in performing the Services due to an event or circumstance beyond its control, then:
  - a. The date for completion of the Services shall be extended by the extent of the delay; and
  - b. PSM shall be entitled to the additional costs and expenses reasonably incurred as a result of that delay.

#### **Liability**

13. To the maximum extent permitted by law and subject to paragraph 14 below, the liability of PSM to the Client arising out of or in any way in connection with the Services, the performance or non-performance of the Services and/or this Agreement, whether under the law of contract, tort (including negligence), equity or otherwise, shall be limited to the cost of rectifying the Services or the sum of I&S, whichever is the lesser. The provisions of this paragraph 13 continue to apply notwithstanding breach of a fundamental term, rescission, frustration, repudiation, or termination for any reason whether deliberate, unintentional or by operation of law.
14. PSM is not liable to the Client in respect of any loss of use of any property, loss of profit, loss of income, loss of revenue, loss of business, loss of contract, loss of goodwill, loss of opportunity, loss of anticipated savings, loss of production or for any indirect or consequential loss or damage which may be suffered by the Client in connection with the Services and/or this Agreement, whether present, or future, fixed or unascertained, actual or contingent.
15. Notwithstanding anything to the contrary, PSM shall have no liability to the Client and will be deemed to have been discharged from all liabilities, whether under the law of contract, tort, (including negligence), equity or otherwise at the expiration of the period of one year from the date of PSM's tax invoice in respect of the final amount claimed by PSM pursuant to clause 7, and the Client (and persons claiming through or under the Client) shall not be entitled to commence any action or claim whatsoever nature against PSM (or any employee of PSM), in each case arising out of or in any way in connection with the Services, the performance or non-performance of the Services and/or this Agreement after that date.

#### **Intellectual Property**

16. Intellectual Property Rights in all drawings, reports, specifications, bills of quantity, calculations and other documents and/or any other materials prepared by PSM arising out of or in any way in connection with the Services, including any documents and/or materials provided to the Client, vests in PSM.
17. Subject to clause 18, PSM grants to the Client an irrevocable licence to use that material for any purpose for which the Services are provided.
18. If the Client is in breach of any obligation to make a payment to PSM, PSM may at its discretion and without incurring any liability:
  - a. Revoke the licence referred to in clause 17, whereupon all the Client's rights in respect of the documents referred to in clause 16 shall terminate and those documents (and all copies thereof) must forthwith be delivered by the Client to PSM; and
  - b. Suspend the provision of the Services.

#### **Disputes**

19. PSM and the Client agree that if any dispute or difference between the parties "**Dispute**" arises in connection with the Services or this Agreement, then the parties must, in good faith, subject to paragraph 19(d), attempt to resolve the Dispute in accordance with the procedure set out in this paragraph below as a condition precedent to commencing any legal proceedings:
  - a. If the Dispute is not resolved within fourteen [14] calendar days after a notice of dispute given under paragraph 19 is received by the other party, the Dispute must be referred to the parties' respective Chief Executive Officers who shall confer at least twice to resolve the Dispute or agree on a method of doing so. All aspects of these conferences except the fact of occurrence shall be privileged.

- b. In the event that Chief Executive Officers are unable to resolve the Dispute, the parties will within a further fourteen [14] calendar days agree on a process to resolve the Dispute without court proceedings which may be either:
  - i. An independent expert
  - ii. Mediation; or
  - iii. Arbitration.
- c. The parties must meet to agree on:
  - i. The selection of any third party to be engaged by the parties and the involvement of any dispute resolution organisation
  - ii. Any procedural rules
  - iii. The timetable, including any exchange of relevant information and documents; and
  - iv. The place where meetings will be held.
- d. Each Party must bear its own costs of endeavouring to resolve and of resolving a Dispute and the parties must bear equally the costs of any third party engaged.
- e. If the Dispute has not been resolved within a further twenty eight [28] calendar days, either Party may terminate the Dispute resolution process by giving written notice to the other party and may commence litigation in respect of that Dispute.
- f. The requirements in the preceding paragraphs do not prevent PSM from:
  - i. Instituting proceedings to enforce payment under this Agreement or to seek injunctive or urgent declaratory relief; and
  - ii. Acting pursuant to clause 18.

### **Modern Slavery**

- 20. The parties must ensure to not engage in Modern Slavery (bears the same meaning given under the Modern Slavery Act 2018 (Cth) or any other relevant law which has as its objective the prohibition of exploitation of workers, human trafficking, slavery, slavery-like behaviour, involuntary servitude, forced marriage, forced labour, child labour, debt bondage or deceptive recruiting for labour or services (or similar), and when performing its obligations under the Agreement, comply with all applicable Modern Slavery legislation and PSM's Corporate Policy relating to Modern Slavery.

### **Termination**

- 21. The Client may terminate its obligation under this Agreement:
  - a. In the event of material breach by PSM of its obligations hereunder, which breach has not been remedied within 30 days of written notice from the Client requiring the breach to be remedied, or
  - b. Upon giving PSM 30 days written notice of its intention to do so.
- 22. PSM may terminate its obligations under this Agreement:
  - a. If monies payable by the Client to PSM are more than 30 days outstanding from the due date for payment
  - b. If the Client commits a breach of its obligations hereunder, which breach has not been remedied within 15 days of written notice from PSM requiring the breach to be remedied; or
  - c. Upon giving the Client 15 calendar days written notice of its intention to do so.
- 23. If this Agreement is terminated for any reason other than pursuant to paragraph 21(a), the Client shall pay to PSM a fair and reasonable fee (including overheads and profit) for the performance of the Services up to the date of termination together with payment of costs and expenses reasonably incurred by PSM to that date.

### **Subcontracting and Assignment**

- 24. If PSM considers it appropriate to do so, it may with the Client's prior approval, which shall not be unreasonably withheld or delayed, subcontract any part of the Services but will remain fully responsible for those services.

25. Subject to clause 23, neither party may assign, novate or otherwise transfer any of its rights or obligations under this Agreement without the prior written consent of the other party. Unless stated in writing to the contrary, no assignment, transfer or novation shall release the assignor from any obligation under this Agreement.

#### **General**

26. Unless arrangements are made to the contrary, core samples will be held in storage for a maximum period of one [1] month from the date of investigation.
27. PSM shall be excused from performing under the terms of this Agreement if and for so long as such compliance is hindered or prevented by an occurrence of force majeure. For the purposes of this clause, "force majeure" means events beyond the reasonable control of PSM, including (without limitation) acts of God, public enemy, acts of the Government, fires, floods, earthquakes, epidemics, pandemics, quarantine restriction, wars, freight embargoes and work stoppages.
28. In the interpretation of this Agreement, no rule of construction applies to the disadvantage of one party on the basis that it put forward this Agreement or any part of it.
29. This Agreement and any documents or information relating to this Agreement or the Services are confidential and the parties must not disclose any of these without the prior written consent of the other party, except to the extent that the disclosure is required to perform this Agreement or by law.
30. Unless otherwise directed in writing by the Client, PSM may include references to the Services in its promotional material. Such references shall exclude any confidential material.
31. This Agreement is subject to and is to be construed in accordance with the laws of the State or Territory in which the Services are performed.
32. If the Client comprises two or more persons, each person will be jointly and severally bound by the Client's obligations under this Agreement.
33. All payments under this Agreement are exclusive of GST. If the provision of the Services is a taxable supply, the Client will pay PSM an additional amount equal to the amount of the consideration for the Services multiplied by the GST rate. The additional amount is payable at the same time and in the same manner as the consideration for the Services.