

Re: PSM5665 Photogrammetry model

From: Dane Pope <dane.pope@psm.com.au>
To: Jack Divers <jack.divers@mornpen.vic.gov.au>
Cc: Claudio Flores <claudio.flores@mornpen.vic.gov.au>, Garry Mostyn <garry.mostyn@psm.com.au>, PsmAdvice <psmadvice@psm.com.au>, Ben Broadhead <bbroadhead@ha.legal>, Andrew Brick <andrew.brick@mornpen.vic.gov.au>, Dale Gilliatte <dale.gilliatte@mornpen.vic.gov.au>, Emily Harkin <emily.harkin@mornpen.vic.gov.au>, Rory MacDonald <rory.macdonald@mornpen.vic.gov.au>, Fletch <fletch@mornpen.vic.gov.au>, Tim Nash <tim.nash@psm.com.au>
Date: Sat, 18 Jan 2025 10:21:38 +1100

Hi all,

The terrain model has been uploaded to the link below. Let me know if any issues with links.

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Dane Pope

Principal | BE (Hons), MEngSc, MIEAust, CPEng, RPEQ

Direct: (03) 7068 5699 | Mobile: Irrelevant & Sensitive | Dane.Pope@psm.com.au

From: Dane Pope <Dane.Pope@psm.com.au>
Sent: Friday, January 17, 2025 4:34:37 PM
To: Jack Divers <Jack.Divers@mornpen.vic.gov.au>
Cc: Claudio Flores <Claudio.Flores@mornpen.vic.gov.au>; Garry Mostyn <Garry.Mostyn@psm.com.au>; PsmAdvice <PsmAdvice@psm.com.au>; Ben Broadhead <bbroadhead@ha.legal>; Andrew Brick <andrew.brick@mornpen.vic.gov.au>; Dale Gilliatte <Dale.Gilliatte@mornpen.vic.gov.au>; Emily Harkin <Emily.Harkin@mornpen.vic.gov.au>; Rory MacDonald <Rory.MacDonald@mornpen.vic.gov.au>; Fletch <fletch@mornpen.vic.gov.au>; Tim Nash <Tim.Nash@psm.com.au>
Subject: PSM5665 Photogrammetry model

Jack,

Please find below the link to the photogrammetry model of the landslide. Note that the LiDAR file is to come and will have bigger extents but this should help all with visualisation.

Irrelevant & Sensitive

The link will be updated as the deliverables hit the project folder. Please let me know if you have issues with access.

I hope the team gets some meaningful rest over the weekend.

Regards,

Dane Pope

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From: Jack Divers <Jack.Divers@mornpen.vic.gov.au>
Sent: Friday, 17 January 2025 3:54 PM
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Subject: RE: PSM5665 Impacted / at danger properties - Landslip site

Hi Dane,

Thanks for the update as discussed I understand that you have now been engaged by council for the below investigation. If you have any questions re the engagement please discuss with Dale.

We will extend the evac zone taking a conservative approach until further investigation occurs.

The additional properties which will need to be evacuated and EO's served on are:

1. 1. 16 Prospect Hill Road
2. 2. 18-20 View Point Road
3. 3. 22 View Point Road
4. 4. 617 Point Nepean Road

Fletch – As discussed can you please arrange for the SES / Police to evacuate these owners if they are not already.

Give me a call any questions.



JACK DIVERS | Municipal Building Surveyor

Email: jack.divers@mornpen.vic.gov.au

Phone: 03 5950 1937

Private Bag 1000, Rosebud VIC 3939 | 2 Queen Street, Mornington VIC 3931

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From: Dane Pope <Dane.Pope@psm.com.au>

Sent: Friday, January 17, 2025 2:15 PM

To: Jack Divers <Jack.Divers@mornpen.vic.gov.au>

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Subject: PSM5665 Impacted / at danger properties - Landslip site

Jack,

We have not accessed all Sites to inform this decision. We don't know with certainty the technical basis behind the SES decision. From talking with Mark (the Incident Controller) I believe he made the decision.

The following information needs to be considered to allow PSM to properly advise council:

- * LiDAR
- * Potential landslide sources on each property (ground truthing the lidar)
- * All Council stormwater facts
 - * Water testing
 - * Videos of stormwater investigation
- * All SEW factual information regarding sewer, water main, etc investigations including field and laboratory testing.
- * Council records regarding:
 - * the 1952 Landslide.
 - * The owner of No. 4 View Point was well aware of it and may have some information.
 - * Luke Jackson (civil infrastructure MPSC) parents live on that section of road and may have further information.
- * Recent permits for alterations including earthworks and cuts in the immediate area.

Two failures of significant enough size and velocity have written off a house and could have killed an individual on two separate events; this alone is rare in Australia. As we understand at this stage, the initial event on the night of the 5th January 2025 was triggered in dry, hot weather. Often rainfall is a reliable indicator. In this case it is not; again this is unusual absent human induced failure. We cannot use rainfall to reliably condition an evacuation order (EO). What this means is we need to understand if there are landslide sources on the properties. Where these are informs who needs to be evacuated.

I have had restricted access this week. I had a useful walkover yesterday (16/01/2025) with a view to understanding landslide sources. The area broadly inspected is in the blue polygon below.



With regards to Properties outside of the polygon these would need to be inspected to inform the decision. Furthermore, a more comprehensive mapping exercise should be conducted to support the EO (including where I walked as it was a brief inspection).

We recommend Council install a monitoring system (likely includes RADAR and conventional total station survey systems) as a matter of urgency. This can then be used to inform safety regarding access and then later inform the decisions relating to repairs/getting people back into their homes. I have a meeting with a radar supplier today to understand capabilities given the access constraints.

To advise on potential EOs, PSM would as a minimum need to:

- * Ground truth the LIDAR data with a field mapping exercise
- * Consider the above facts requested (there may be more information we need including commissioning independent water quality testing)
- * Conduct an assessment of risk to life.

This is not an exercise that can be completed today. It's a significant body of work one of which we have capacity to commence immediately. PSM has the resources on standby to commence the assessment. Council is working to understand if and how we would be engaged.

As we understand it, Council has powers to evacuate without this study. We discussed with your legal and planning team the implications regarding extent of the EO. Council could issue the EO and with that invite the owners to seek independent geotechnical advice in the interim. If the owners engage their own Geotechnical engineers to provide advice, we/council can consider those opinions. We note that it would be easy to advise council to issue a wide swathe of EOs, this would result in many people evacuating that did not, in hindsight, have to do so and, once done, it may be difficult to justify re-occupation. Our approach will be to provide council with advice such that it can evacuate properties for which there is a proper basis to do so and for which there would be a proper basis to re-occupy.

Given that both Council and SEW are making concentrated efforts to potentially reduce water infiltration in the catchment area we recommend as a matter of urgency that all property owners in the immediate catchment (downslope of the escarpment and upslope to the motorway) are issued with notifications to cease all unnecessary use of water i.e. drought-like water restrictions. This is due to the uncertainty that remains regarding water sources. Further advice regarding investigation of water sources can be provided under separate cover (including investigations on View Point that can follow the installation of monitoring equipment).

Regards,

Dane Pope

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Mobile

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Subject: Impacted / at danger properties - Landslip site

Hi Dane,

We will be issuing the EO's today for the affected properties to vacate.

Can you please confirm which properties currently are in danger / danger to life.

We need to ensure this marrys up with the EO's that we issue today.

Give me a call any questions.

**JACK DIVERS** | Municipal Building Surveyor**Email:** jack.divers@mornpen.vic.gov.au**Phone:** 03 5950 1937

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