

Our Ref: A24/74763

21 March 2024

Ms Claire Hynes  
Delegate (Chair)  
Tasmanian Planning Commission  
[tpc@planning.tas.gov.au](mailto:tpc@planning.tas.gov.au)

Dear Ms Hynes,

### **SES RESPONSE TO TASMANIAN PLANNING COMMISSION'S DIRECTION LETTER REGARDING DRAFT KENTISH LOCAL PROVISIONS SCHEDULE**

I refer to your letter, regarding the draft Kentish Local Provisions Schedule (LPS) and requesting the State Emergency Service (SES) provide a response to Direction no.2 set out in the letter's attached directions schedule, **by 5 April 2024**. Direction no.2 states:

*Regarding your [SES] representation, provide a submission on the following:*

- *progress of the Tasmanian Strategic Flood Mapping Project and development of the Tasmanian Flood Map to support flood assessment, as it relates to the Kentish municipality and in context of the current assessment of the Kentish draft LPS; and*
- *the status of the March 2023 flood modelling reports including its validity for the purpose of land use planning management.*

Your letter also seeks advice from SES to matters raised in representations by two residents of the Railton community, related to accuracy of the draft Flood-Prone Areas Hazard Overlay in Railton.

#### **Tasmanian Flood Mapping Project**

The Tasmanian Flood Mapping Project has delivered to SES, a set of calibration and defined flood event reports with associated flood mapping for 24 catchments across the State. The reports, including a [Summary Report](#), are publicly available from the [SES website](#). The reports relevant to the Kentish municipality include the Forth – Leven, and Mersey catchment reports.

The Summary Report confirms the suitability of the flood mapping for the purpose of strategic land-use planning such as an LPS Flood Prone Areas Hazard Overlay, and describes the methods and limitations of the flood modelling process used to create the mapping for each catchment.

SES is aiming to release of the flood mapping through ListMap by 30 June 2024

SES has commenced the planning and procurement stage of a two-year project to work with key stakeholders to undertake the *Landuse Planning and Building Control Policy for Flood Risk Management Project*. This project is aligned with the State Planning Office's current review of the State Planning Provisions.

The project will provide a policy framework to inform the preparation of a new Flood-Prone Areas Hazard Code and Overlay, based on the SES Tasmanian Strategic Flood Map (TSFM), that can be used as a default overlay by all councils for the making of LPS's. The policy framework will include provisions for Councils to use more detailed flood mapping than the default mapping, where it exists.

### **Draft Kentish LPS Flood Prone Hazard Areas Overlay – Representations 6 and 8**

With respect to the matter raised by the two Railton residents in their representations on the draft Kentish LPS and the extent of the draft Flood-Prone Areas Hazard Overlay, SES provide the following advice:

- All flood modelling has limitations regarding the ability to accurately predict future flood risk for individual properties for all probable rainfall events.
- Flood modelling helps identify areas that are likely to be affected by flooding to the extent that a planning and/or building response would be required to manage the risk to a tolerable level.
- Railton township is flood prone and was flooded by Redwater Creek in 1970, 2007, 2011, 2016, and 2022.
- Redwater Creek is an ungauged catchment making calibration of flood modelling for Railton difficult. The assumptions and limitations of the Tasmanian Strategic Flood Map (TSFM) have been published in the Mersey calibration report on the SES website. The TSFM is suitable for use in a Flood Prone Areas Hazard Overlay.
- The 2011 flood event is recognised as the flood of record, when significant parts of Railton were flooded. The 2011 flood event has been assessed by suitably qualified persons, as slightly rarer than a 1% AEP flood event (Kentish Council - *Railton Flood Mitigation Project – Hydrology Report* – WMAwater September 2023). Climate change is expected to make floods of this magnitude more common in the future.
- The flood modelling used as the basis for the current draft Kentish Flood-Prone Areas Hazard Overlay, is based on a 1% AEP design event in current climate conditions, that is in turn based on the 2011 flood event and published in the SEMF *Review of Railton Flood Mitigation Options Report 2014*.
- The 1% AEP event current climate extent in the SEMF report is informed in part by detailed on ground survey work and interviews conducted 4 to 5 weeks after the 2011 flood event. This includes two accurate High Water Mark survey points on Dowbiggin Street between Morrison and Foster Streets<sup>1</sup>.

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<sup>1</sup> Drawing Notes on Drawing 1406-D01 in Appendix E of *Review of Railton Flood Mitigation Options Report* (SEMF; 2014)

- There are some differences between the Kentish draft LPS Flood-prone Areas Hazard Overlay and the TSFM 1% AEP extent in the Railton area.
- Figure 1 shows the extent of the TSFM 1% AEP over the subject area.
- The draft Overlay and TSFM 1% AEP maps both show 55 and 53 Morrison Street are prone to flooding from Redwater Creek, however the TSFM shows the land occupied by the habitable buildings on these properties are outside of the modelled flood extent.
- The difference in extent between the draft Overlay and TSFM 1% AEP is most likely due to more detailed terrain height data being available for use in the TSFM.
- The TSFM extent at 55 and 53 Morrison Street shows general alignment with the sketch map included in Mr Anthony Murphy's Representation.
- SES has reviewed the observed flood heights and floor levels documented in the SEMF Report, for 55 and 53 Morrison Street. The report shows that the land in both subject parcels was flood affected in the 2011 flood event. However, the floor heights of the habitable buildings were above the observed flood height so would not have experienced over-floor flooding.
- Since the 2011 event, further flooding events occurred in 2016 and 2022. The rainfall recorded at Sheffield associated with the 2016 and 2022 events have been assessed as being rarer than a 1% AEP event by a suitably qualified hydrologist<sup>2</sup>.
- Photographs (Figures 2, 3, and 4) captured after the peak of the 2022 flood event confirm flooding on 55 and 53 Morrison Street but below the level of the habitable buildings on the properties.
- Figure 2 shows an assessment of the flood extent on the subject properties after the 2022 flood event. There is strong agreement between the actual flood extent in the 2022 flood event and the TSFM 1% AEP extent shown in Figure 1.
- Figures 2 and 3 also confirm that the flood water in the subject area, has a depth and velocity sufficient to scour the land on both sides of Dowbiggin Street, depositing silt and gravel on the road, emphasising the relatively high flood hazard at this location.

## Conclusions

The 2011 flood event has been assessed by suitably qualified persons as slightly rarer than a 1% AEP flood event.

There is a difference in the flood extent between the draft Flood-prone Areas Hazard Overlay included in the Kentish draft LPS and the 1% AEP TSFM at the location of 55 and 53 Morrison Street.

There is agreement between the flood extent in the Kentish draft LPS and the TSFM that both 55 and 53 Morrison Street contain land that is flood-prone.

The building footprint and floor levels of the existing habitable dwellings on both 55 and 53 Morrison Street are of a height that is outside and above the modelled TSFMP current climate 1% AEP extent.

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<sup>2</sup> Railton rainfall event AEP memo to SES (WMA Water; 2024)

The majority of the balance of the land on both 55 and 53 Morrison Street is within a 1% AEP flood extent areas inundated by historic flood events, most recently in October 2022.

The TPS – Flood-Prone Areas Hazard Code (the Code), has provisions in it to allow for the preparation of an independent report to be prepared by a suitably qualified person at the individual property scale to support a change of use or development application, where the Planning Authority reasonably believes the land is subject to risk from flood or has the potential to cause increased risk from flood.

Please contact the Manager Flood Policy Unit – Chris Irvine, on 6173 2700, or by email [chris.irvine@ses.tas.gov.au](mailto:chris.irvine@ses.tas.gov.au) , if you wish to discuss any of the matters raised in this submission.

Yours sincerely

A handwritten signature in black ink, appearing to be 'ML', with a long horizontal stroke extending to the right.

**Mick Lowe**  
Executive Director SES and Volunteers

ENCLOSURES

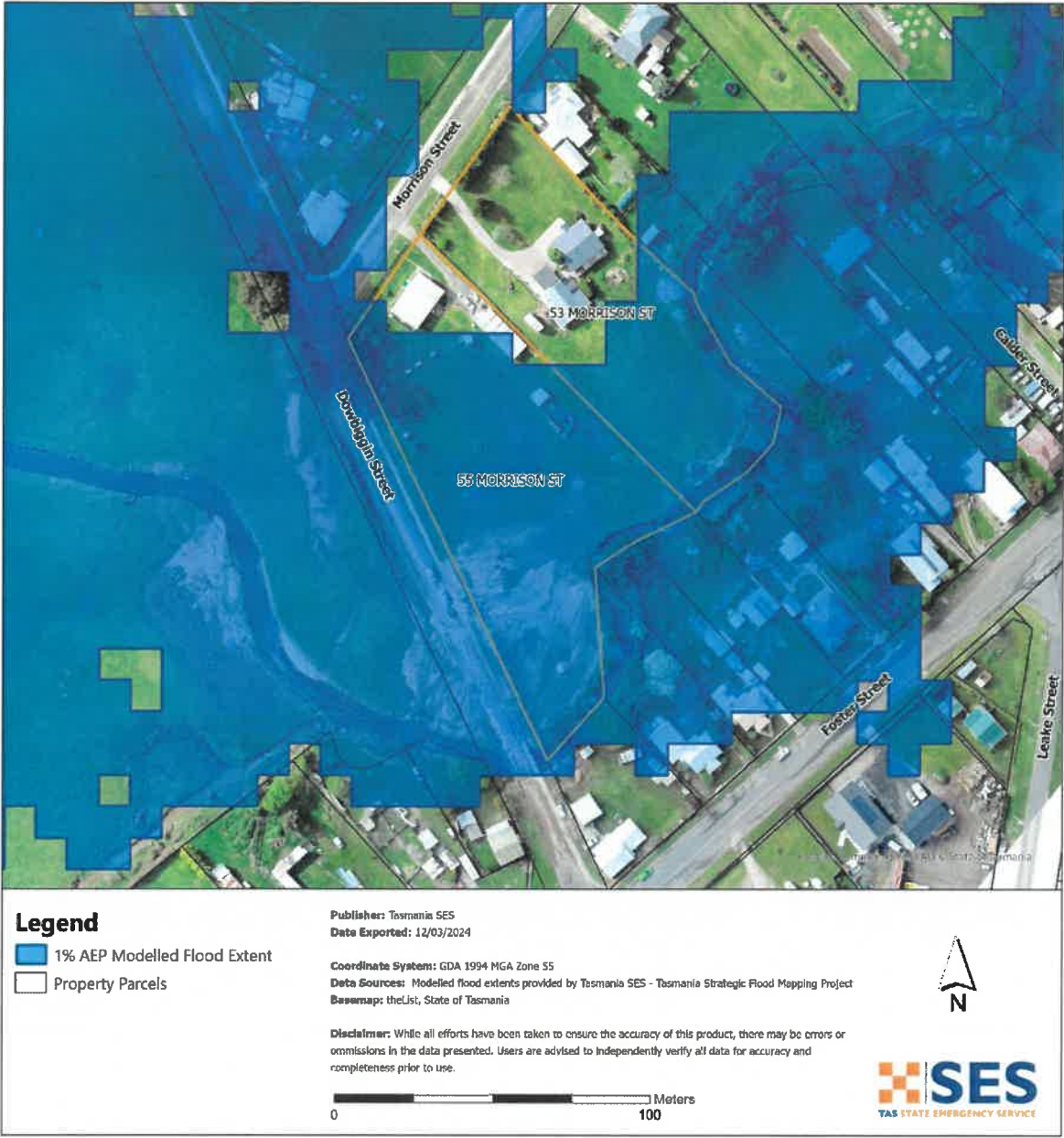


Figure 1 – Assessment of the actual flood extent from the 2022 flood event at 55 and 53 Morrison Street Railton. Assessment has been made from aerial imagery taken approximately eight hours after the event.



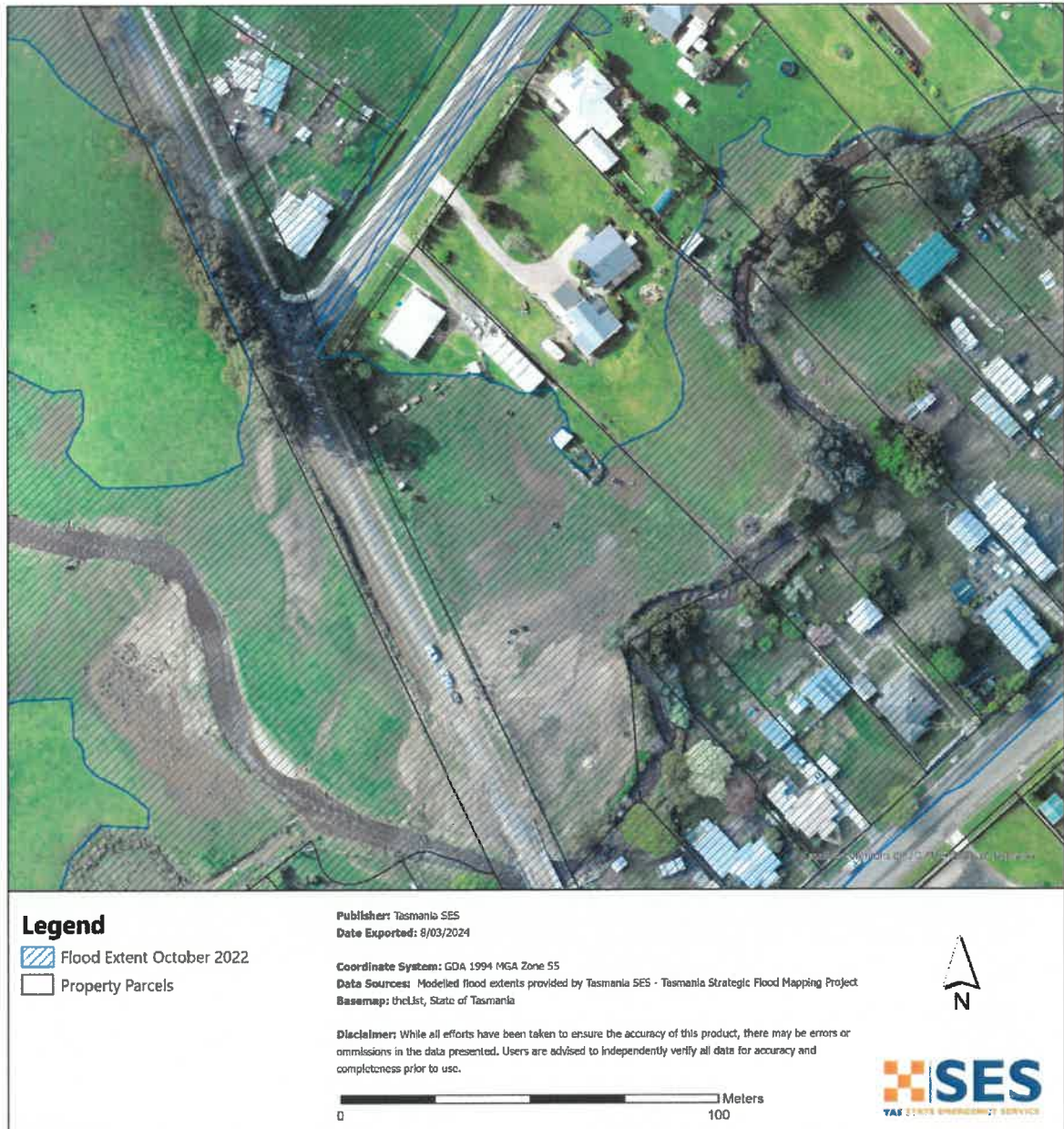


Figure 2: Tasmanian Strategic Flood Map modelled 1% AEP flood extent at 55 and 53 Morrison Street Railton



Figure 3: Scouring caused by the 2022 floodwater at Dowbiggin Street and the rear boundary of 55 Morrison Street



Figure 4: Flood waters rising at Redwater Creek, Railton. (ABC News: Monte Bovill)  
<https://www.abc.net.au/news/2022-10-17/tasmania-floods-in-pictures-october-2022/101541766>