Piopiotahi Milford Sound:

A coordinated approach to understanding, communicating and managing natural hazard risk.

Piopiotahi Milford Sound is one of Aotearoa New Zealand's most iconic, stunning and remote visitor destinations. However, it's important visitors and workers understand the remote wilderness and dynamic geology that make this destination so incredible also present significant natural hazard risk, including earthquake-induced landslides and tsunami.

Research published by the University of Canterbury* has improved our understanding of this tsunami risk. However, further research to quantify, communicate and manage this risk is required. In response, Emergency Management Southland (EMS), in collaboration with Milford Sound Tourism Limited (MSTL), the Department of Conservation (DOC), the National Emergency Management Agency (NEMA), and other partners, have initiated a multi-stage project to improve our understanding of natural hazard exposure and quantify risk to life from tsunami hazards for both visitors and workers at Piopiotahi Milford Sound.

To support this, the project partners are also developing a collective hazard risk communication strategy to enable consistent messaging, and ensure people have the right information at the right time to make informed decisions regarding their safety.

Collective Hazard Risk Communication Strategy

While more research is needed to quantify and manage the risk of earthquake-induced landslides and tsunami at Piopiotahi Milford Sound, it is agreed that there should be no delay in communicating what we do know, and what we are doing to improve our understanding and management of the risk.

The Collective Hazard Risk Communication Strategy is based on advice from GNS Science and is designed to be implemented immediately. It includes short and medium-term actions to implement over the next 12-18 months, as the research progresses. It also includes a process for reviewing and updating as new science and hazard insights become available, to enable longer-term communications goals to be developed and implemented as our understanding of the risk improves.

Short-term actions	Medium-term actions	Longer-term goals
▸ Version one of strategy ready for implementation (Dec 2025 – Jan 2026) ▸ Agree consistent messaging updated across project partner websites with a focus on Milford Sound related content (Jan 2026) ▸ Staff induction tool built and online messaging updated (Jan 2026).	▸ Strategy reviewed and updated based on new tsunami modelling. ▸ Updates to online messaging accordingly. ▸ Ensure opportunities for mana whenua-led pūrakau to be communicated. ▸ Development of consistent messaging and narratives for use across physical touchpoints (e.g. signage).	▸ Strategy review and refresh of key messages based on new science modelling and risk analysis. ▸ Review of audience touchpoints based on updates to tourism destination plans. ▸ Updates to online messaging and physical touchpoints.

The strategy will:

- Establish a unified approach to how natural hazard risk associated with Piopiotahi Milford Sound is communicated.
- Enable the communication of clear and consistent risk messaging to support informed decision-making and the safety of staff and visitors.
- Be adaptable to new information, future science and organisational changes.
- Ensure hard risk messaging is underpinned by the most up-to-date science and modelling available.
- Improve risk literacy and build local hazard risk communications capability.
- Be able to take advantage of new technology and opportunities to share consistent messages.

Emergency Management Southland · Department of Conservation Te Papa Atawhai · Milford Sound Piopiotahi Tourism Ltd · National Emergency Management Agency Te Rākau Whakamarumaru · Great South · New Zealand Tourism 100% Pure New Zealand · southern discoveries · Real nz · AF8 Alpine Fault Magnitude 8

* Darling, M. J., et al. (2025). Minutes matter for life safety and risk exposure in Milford Sound, New Zealand. *Harris, O. L. et al. (2024). Agent-based modelling of evacuation scenarios for a landslide-generated tsunami in Milford Sound, New Zealand

Indicative project timeline

The graphic below summarises the two main workstreams: the science research required to quantify and manage the risk, and the development of a collective hazard risk communication strategy to guide a unified approach to communicating that risk.

It shows how the two workstreams align so new knowledge can be incorporated as the science research and risk modelling progress.