



# Annual Report

1 April 2023 – 31 March 2024



Geoscience  
Society  
of  
New Zealand



### **Companies Office Registration**

Geoscience Society of New Zealand Incorporated No. 219911

Geoscience Society of New Zealand Awards Trust No. 1477708

### **Charities Services Registration**

Geoscience Society of New Zealand Incorporated: CC41125

Geoscience Society of New Zealand Awards Trust: CC35670

### **Constituent Organisation of the Royal Society of New Zealand**

#### **Report Compiled By:**

Jenny Stein

Secretary

Geoscience Society of New Zealand (GSNZ)

**Geosciences Society of New Zealand Inc.**

**PO Box 7003, Newtown, Wellington 6242**

**New Zealand**

[www.gnsz.org.nz](http://www.gnsz.org.nz)

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## President's Report

Tēnā koutou,

Front of mind for many people over the past year (April 2023 to March 2024) has been the worsening situation in the tertiary education sector, with cuts to teaching programmes, travel freezes, restructuring, and ultimately staff losses at several universities. This has, and is continuing to have, a negative impact on the training pathways for new geoscientists and has meant we have lost talented geoscientists, some of whom have left the country in search of other employment. The freeze of international student enrolments during border closures, a slump in domestic student enrolments, and rising running costs have, have not been sufficiently buffered by government investment in the tertiary sector. The financial pressures are also being felt by other parts of the public sector, exacerbated by the mandated savings imposed by the current government. This is squeezing the science funding system and all research institutes. The scraping of the Te Ara Paerangi Future Pathways proposal in early 2024 was one of the first signals of worse to come. By the time of writing, but after the reporting period of this annual report, there were subsequent cuts at NIWA and GNS Science. As then-President Kat Holt foreshadowed in her July 2023 Newsletter column, the cuts across the science system are now no doubt the most serious threat since the cuts to the DSIR in the 1990s.

*"...the cuts across the science system are now no doubt the most serious threat since the cuts to the DSIR in the 1990s."*

I want to acknowledge the significant strain this situation has put on many of our members, and especially those who have lost jobs as a result. A particular note of appreciation is due to the organisers of our last annual conference, in Wellington, November 2023. Jointly-run by NIWA and VUW, the organisers delivered a very successful and enjoyable conference (see Appendices A & B) despite the considerable pressure that some of the organisers were under due to job insecurity and disruption in their institutions. To switch to a more positive note, the conference also saw the inaugural EarthFest, led by Jenny Stein, who drew inspiration from the highly successful VolcanoFest run by Ben Kennedy at the start of 2023 (see Appendix C: EarthFest 2023 Event Report). Events like these, that showcase the excitement of geoscience, are an inspiration to kids to learn more about our planet, and instil in them (and hopefully their parents too) the importance of geoscience. It's great that EarthFest will run alongside the 2024 annual conference too.

*"Events like these...are an inspiration to kids to learn more about our planet."*

The National Committee backs initiatives like Earthfest which help to support geoscience from the ground up. We have also been trying to advocate for geoscience in other ways, with media releases, letters to ministers, and more recently joining the Save Science Coalition. To keep things rolling the National Committee met 6 times during the year (all but once online). There have been four key activities the committee has been working on, other than business as usual: 1) Drafting our new constitution to ensure that we operate with the requirements of the new Incorporate Societies Act, thanks in large part to Kat Holt; 2) Reviewing and revising our awards portfolio; 3) Actioning our strategic plan which was developed over the past two years; and 4) Making plans for how to use the significant bequest received from Jack Grant-Mackie. With our newsletter editor

*"We have also been trying to advocate for geoscience..."*

stepping down, several of the committee also worked hard – on top of their other roles – to keep the newsletter Geoscientist Aotearoa going. We were especially pleased when Hannah Martin and Brigitte Shepherd were appointed to the editorial role in early 2024.

*“...the development of a code of ethics for the collection, storage and use of fossils in Aotearoa.”*

One activity of note from the Special Interest Groups has been the development of a code of ethics for the collection, storage and use of fossils in Aotearoa. The code was written by members of the Palaeontology Special Interest Group and the National Committee approved this for incorporation into the Society's Code of Ethics, which can be found on our website. It is worth having a read of that, especially if you are inclined to do a bit of fossicking for fossils or have your own collection – even the occasional collector should be mindful of responsible practice, as outlined in the code of ethics.

The GSNZ has memorandum of understanding with several other organisations, one of which is Tourism New Zealand, to bring more international geoscience conferences to Aotearoa. Three major international conferences bids have been successful in the past year thanks to the support of Tourism New Zealand: The International Sedimentology Conference in January 2026; The International Conference on Geomorphology in February 2026, and the International Conference on Machine Intelligence for GeoAnalytics and Remote Sensing, which took place in April 2024. By the time of writing, the same organisers of the latter conference have just been successful in landing an even larger conference bid, the International Geoscience and Remote Sensing Symposium which will run in mid-2028. Our country is an exciting place for geoscientists to visit and we seem to be developing a track-record of hosting successful conferences. For example, in February 2023 several members hosted the highly successful Scientific Assembly of the International Association of Volcanology and Chemistry of the Earth's Interior. Having so many international scientists connect and network with us and the opportunity to showcase our science and this part of the world is exciting, and with flow on benefits.

*“Our country is an exciting place for geoscientists to visit and we seem to be developing a track-record of hosting successful conferences.”*

Overall, as shown in this annual report, the Society continues to be active across its branches and SIGs, has stable membership numbers, and has run a successful annual conference. There have been well-received Hochstetter (Lorna Strachan) and President (Kat Holt) lecture tours, and we've been able to recognise and award members through our annual grants and awards. The Society remains in a strong financial position, with considerable cash assets to allow new initiatives over the coming years, in large part to the generous bequests and donations made by members. I thank the members for their ongoing support of the Society, and also the members of the National Committee for their tireless efforts and enthusiasm.



**Sam McColl**  
**President**  
**Geoscience Society of New Zealand (GSNZ)**

## Treasurer's Report

My report is drawn from the set of accounts prepared by Brunton Cropp, who compiled our financial activities and reviewed our financial performance (see Appendix D). Accordingly, upon approval by members at the AGM, a summary of the Society's Consolidated Accounts and those of the GSNZ Awards Trust will be lodged with Charities Services. I note that to be compliant with the new Incorporated Societies Act 2022, the period between our balance date and members' approval of our accounts (AGM) will need to be less than 6 months, i.e. a change from our current situation.

The Society's consolidated accounts record a surplus of \$71,863, of which the GSNZ operating accounts made a surplus of \$28,029 and the Awards Trust \$43,834. The Society's total accumulated funds across all its accounts stand at \$1,497,160, an increase of \$103,790 over last year.

Consistent with previous years, the Society's income streams included membership subscriptions, sales revenue from publications, interest from our investments, and any surplus made from conference registrations. Our outgoings include costs associated with the management and administration of the Society, support of the Hochstetter lecture tour, production (hard copy and electronic) of newsletters to the membership, purchase of stock, and sponsorship of selected publications.

On the back of favourable term-deposit rates, interest and annual revenue from investments was \$65,449, more than double that of last year. Of that total, \$36,689 was from the operating account, largely on the back of the generous gift made by the Estate of Jack Augustus Grant-Mackie (JG-M fund). As deposit rates ease returns will become more modest. The Awards Trust, which includes the Westpac Active Series Moderate Trust Managed Fund, contributed \$28,760 of income, and an additional \$29,274 of unrealised gains on investments. The managed fund continues to show solid growth since it was established in June 2022, with an indicative unit trust value of \$606,277 at year end.

Aligned with our charitable status, a significant component of our annual income underpins grants and awards for Tertiary Students and Early Career geoscientists, supporting their research and opportunities to present their work at geoscience conferences and meetings. A large proportion of this assistance is leveraged via the GSNZ Awards Trust. A total of 24 grants and awards, with \$22,926 dispersed in the 2023-24 financial year across the Society's accounts.

Total administration costs remain the largest operational expense, increasing slightly to \$31,465. The National Committee continues to support a face-to-face meeting annually, and travel expenses will vary year to year depending on the location of participants. By exception, there was a strategy meeting in Wellington later in the year to discuss revisions to the constitution, options for the JG-M fund, and potential updates to the awards. Despite this additional in-person meeting, the Committee costs were slightly down on the previous year.

Total membership subscriptions were steady at \$46,627, maintaining an important source of discretionary income for the GSNZ. Similarly, sales were \$3,790, consistent with the previous year. A Continent on the Move (2nd ed) saw a welcome boost, with 184 copies sold (up 65 copies on the previous year). Significant stock remains (1809) and we continue to work with Bateman to keep the wholesale cost attractive.

It is timely to thank and acknowledge all those who have contributed to the Society through donations, sponsorship and their time. The Society's ongoing support of students and their science projects, conference attendance, supporting lectures, career development and awards etc is significantly enhanced by your loyalty and generosity.

*Alan Orpin*

**Alan Orpin**  
**Treasurer**  
**Geoscience Society of New Zealand (GSNZ)**

## Minutes of the Last AGM

### The 14th Annual General Meeting of the Geoscience Society of New Zealand (Inc)

**Venue:** Victoria University of Wellington, Wellington, in person and via zoom

**Date:** Wednesday 15 November 2023, 5pm

#### 1. Welcome and Apologies

Kat Holt welcomed everyone to the meeting.

She explained there had been a change to the original Agenda due to a technical issue that had resulted in the Annual Report not having been circulated on 9 November as originally intended. This had now been sent to all members. The meeting would not now Vote to accept the Annual Report but this was not a requirement of our Rules and would not invalidate the AGM.

Jenny Stein, Secretary would be monitoring the Zoom account throughout the meeting.

Apologies received were read to the meeting: Vince Neall, David Lowe, Holly Kennedy, Bruce Stern, Martin Brook, Adrian Pittari, Donald MacFarlan, Jennifer Eccles, Murray Baker, Mike Johnston, Julie Palmer, Christina Gilderdale, Sanjay Bora.

Additional apologies from the floor: Phil Barnes

#### 2. Minutes of the 12th AGM of the Geoscience Society of New Zealand

Minutes from the 13th AGM held in Palmerston North in November 2022 had been circulated and taken as read.

One small correction was made to the spelling of an Award recipients name.

#### Motion 1:

**Motion 1:** Approve the minutes of the GSNZ 13th AGM held in November 2022.

Proposed: Kate Holt

Seconder: Angela Griffin

Voting: carried unanimously

#### 3. President's Report

Kat presented an interim report for the year since 31 March 2023.

University funding crisis and its impacts on geoscience teaching and research in New Zealand



Strategic Plan development

Member engagement in the Society and its activities

Visibility and value of geosciences in Aotearoa

Te Tiriti Alignment

Organisational sustainability within GSNZ

New publication: Hochstetter's Auckland Diary - Sascha Nolden & Bruce Hayward

#### 4. Acknowledgements

##### **Honours & Awards**

Frances P. Shepard Medal - Phil Barnes

##### **MBIE Endeavour Fund Research Programmes**

Anke Zernack

Saskia de Vilder & Emma Hudson-Doyle

Jamie Howarth, Kate Clark, Kelvin Tapuke & colleagues

Jocelyn Turnbull

David Johnston & colleagues

##### **MBIE Smart Ideas**

Geoff Kilgour

Mel Whitehead

Sally Watson

##### **Other Awards & Grants**

Rutherford Postdoctoral Fellowship - Simon Barker

Marsden Fund Grants- Genevieve Coffey

##### **Deaths**

Four former members were remembered, and their accomplishments acknowledged.

Alan Beu

Jane Forsyth

Ewan Fordyce

John Allen

#### 5. Treasurer's Report and Financial Summary

Alan Orpin, Treasurer spoke to the Treasurer's report.

- Alan apologised that again the accounts had not been audited due to delays with the accountants.

- Total accumulated funds across all accounts \$1,393,370, ( ↑ \$505,517 over last year).
- An extremely generous gift of \$479,456 made by the Estate of Jack Augustus Grant-Mackie. Jack's wish was "without imposing any trust, this gift be used for the benefit of graduate geology students to attend geosciences conferences and/or for students to undertake research".
- General account: surplus of \$487,590, directly reflecting the gift from the JG-M and a small operational surplus of \$8,134.
- 24 grants and awards (to value of \$25,565) were dispersed in the 2022-23 financial year.
- Administration costs: \$29,198.
- Total membership subscriptions \$46,769 ( ↑ \$8,294)
- Sales: \$3,636 (slight decline)
- Increase in interest rates realised \$30,045 of growth across all of the Society's cash accounts, together with \$12,400 of unrealised gains on the Award Trust's Westpac Active Series Managed Fund.
- It is timely to thank and acknowledge all those who have contributed to the Society through donations, sponsorship and their time. The Society's ongoing support of students and their science projects, conferences, lectures, career development and awards etc., is significantly enhanced by your generosity.

James Crampton asked how the JG-M funds would be spent.

Alan explained the Executive Committee had discussed this and it would be split between short- and long-term projects. In the short term it would support a conference subsidy for student registrations and travel, and the Young Researcher Travel Grants. Other longer-term options were under consideration.

### **Motion 2:**

**Motion 2:** To approve the unaudited financial statements in principle, as appended to annual report

Proposed: Alan Orpin

Secunder: Georg Zelmer

Voting: carried unanimously

## 6. Election of Officers and Committee for 2022-2023

Thank you to the Committee of 2023, in particular the following members who will be stepping down:

- James Scott
- Sebastian Naeher

Thanks also to Nicola Lichfield & Steph Coursey who stepped down during the year.

### *Office Holders*

#### **President**

Sam McColl (Wellington) - Nominated by Katherine Holt

Seconder: Bruce Hayward

Any other nominations: None

Voting: carried unanimously

#### **Vice President**

Sam McColl (Manawatū)

Catherine Reid (Canterbury) - Nominated by Sam McColl

Seconder: Jarg Pettinger

Any other nominations: None

Voting: carried unanimously

#### **Secretary**

Jenny Stein (Wellington) – Nominated by Katherine Holt

Seconder: Angela Griffin

Any other nominations: None

Voting: carried unanimously

#### **Treasurer**

Alan Orpin (Wellington) – Nominated by Katherine Holt

Seconder: Suzi Woltz

Any other nominations: None

Voting: carried unanimously

#### ***Five elected committee members:***

Angela Griffin (Wellington) – eligible for re-election

Alex Nichols (Canterbury) – eligible for re-election

Matt Sagar (Wellington) – eligible for re-election

Michael Rowe (Auckland) - eligible for re-election

Andrew La Croix (Waikato) - formerly Branch rep

Nominated by: Jenny Stein

Seconder: El Mestel

Any other nominations: None

Voting: carried unanimously

#### ***Non-Elected Committee Members for 2023/2024***

Kat Holt (Manawatu) - Immediate Past President (ex officio)

#### ***Co-opted Members and Appointments:***

Shannen Mills (Manawatū) – ECR rep

Oliver McLeod (Waikato)

*Provision in rules for invited Branch (20+) rep. for Branches not represented:*

Otago: Sophie Briggs

**Administrator:** Nicki Sayers

**Newsletter Editor:** (role currently vacant)

**Student Representative:** (role currently vacant)

## 7. Treasurer's Honorarium

### Motion 3:

**Motion 3:** That upon the request of the current Treasurer there will not be an honorarium budgeted or paid for the coming year.

Proposed: Katherine Holt

Seconded: Suzie Woltz

Voting: carried.

Abstained: Nick Powell

## 8. Appointment of Auditor

### Motion 4:

**Motion 4:** Following a process of due diligence, the National Committee will reappoint Kendons as auditor for the annual accounts.

Proposed: Alan Orpin

Seconded: Georg Zellmer

Voting: carried unanimously

## 9. Election of Geological Awards Trustees

### Motion 5:

**Motion 5:** To appoint Katherine Holt (Immediate Past President) as chair, the GSNZ President and Vice-President, the GSNZ Treasurer, and James Scott, to the GSNZ Awards Trust.

Proposed: Jenny Stein

Secunder: Scott Nodder

Voting: carried unanimously

## 10. GSNZ Newsletter

We have been without an editor for most of this year.

Members of National Committee covering in the meantime - not sustainable long-term.

Virtually no interest from the membership in the role.

Options:

- editorial committee to share the load

- offering an honorarium to reflect the time and skill commitment
- PLEASE promote this role to anyone who may be interested.

## 11. Important Society Developments

### **Incorporated Societies Act 2022**

New Society Constitution under development.

Most significant changes - grievances & complaints procedure, consent to membership, Officer eligibility.

Revised Society objectives/purposes.

Will require a vote from the membership.

Timeline: member consultation & feedback in early/mid 2024; legal advice regarding Act compliance; Special General Meeting for further discussion and voting.

### **Awards Portfolio Review**

Sam explained a review was underway to ensure the awards portfolio was fit for purpose. Once this was completed the proposal would be circulated to the membership for feedback.

### **Plans for monies bequeathed to the Society by Jack Grant-Mackie**

Substantial sum received in 2022.

A number of initiatives under discussion, including long term funding for student conference attendance, research costs and travel, supporting ECR & student development activities, support for Māori geoscience students & research, funding publication of student work such as maps and bulletins, student-industry fieldtrip (SIFT)

## 12. Any other business

Jenny Stein: The International Association for the Promotion of Geoethics (IAPG) – looking to get a NZ Chapter; Matthew Hughes at the University of Canterbury is leading this and is looking for a team of interested people. Contact [matthew.hughes@canterbury.ac.nz](mailto:matthew.hughes@canterbury.ac.nz).

*There being no other business the meeting closed at 5.51pm.*

*Nicki Sayers*

**Nicki Sayers  
Administrator  
Geoscience Society of New Zealand (GSNZ)**


















# National Structure

## Committee Members

New and continuing officers and Committee members elected at the 2023 AGM, co-opted members, and appointments at or after the AGM and ongoing members of the previous committee:

Elected Officers @ 2023 AGM	Affiliation	First Elected
Sam McColl (President)	GNS Science	2021
Catherine Reid (Vice President)	University of Canterbury	2023
Jenny Stein (Secretary)	GNS Science	2020
Alan Orpin (Treasurer)	NIWA	2017
Committee		
Matt Sagar	GNS Science	2016
Alex Nichols	University of Canterbury	2018
Angela Griffin	GNS Science	2019
Michael Rowe	University of Auckland	2021
Andrew La Croix	University of Waikato	2019
Appointments <sup>1</sup> / Co-opted <sup>2</sup>		
<sup>1</sup> Kat Holt (Immediate Past President)	Massey University	2021
<sup>1</sup> Nicki Sayers (Administrator)	(independent)	2018
<sup>1</sup> Hannah Martin (Newsletter Co-Editor)	University of Nevada	2024
<sup>1</sup> Brigitte Shepherd (Newsletter Co-Editor)	Stantec	2024
<sup>2</sup> Oliver McLeod (Branch Representative)	Waikato Regional Council	2023
<sup>2</sup> Sophie Briggs (Branch Representative)	University of Otago	2023
<sup>2</sup> Shannen Mills (ECR Representative)	Massey University	2021
<sup>2</sup> Michelle Gallagher (Student Representative)	University of Auckland	2024
Outgoing		
James Scott (Immediate Past President)	University of Otago	2016
Janis Russell	(independent)	2020
Nicola Litchfield	GNS Science	2021

*The 2023-2024 National Committee*

 <p><b>Sam McColl</b> President <a href="#">+ View More</a></p>	 <p><b>Catherine Reid</b> Vice President <a href="#">+ View More</a></p>	 <p><b>Alan Orpin</b> Treasurer <a href="#">+ View More</a></p>
 <p><b>Jenny Stein</b> Secretary <a href="#">+ View More</a></p>	 <p><b>Katherine (Kat) Holt</b> Immediate Past President <a href="#">+ View More</a></p>	 <p><b>Hannah Martin</b> Newsletter Editor <a href="#">+ View More</a></p>
 <p><b>Brigitte Shepherd</b> Newsletter Editor <a href="#">+ View More</a></p>	 <p><b>Alex Nichols</b> Publications Sales <a href="#">+ View More</a></p>	 <p><b>Matthew (Matt) Sagar</b> Publications Convener <a href="#">+ View More</a></p>
 <p><b>Nicki Sayers</b> Administrator <a href="#">+ View More</a></p>	 <p><b>Angela Griffin</b> Member <a href="#">+ View More</a></p>	 <p><b>Andrew La Croix</b> Member <a href="#">+ View More</a></p>
 <p><b>Michael Rowe</b> Member <a href="#">+ View More</a></p>	 <p><b>Shannen Mills</b> Member <a href="#">+ View More</a></p>	 <p><b>Sophie Briggs</b> Member <a href="#">+ View More</a></p>
 <p><b>Oliver McLeod</b> Member <a href="#">+ View More</a></p>	 <p><b>Michelle Gallagher</b> Member <a href="#">+ View More</a></p>	

### Relationships

#### Current Memoranda of Understanding:

- With Tourism New Zealand Zealand (1 Jan 2024 – 31 Dec 2025, with opportunity for annual renewal)
- With Geological Society of Australia (effective 25 Aug 2021 – 25 Aug 2031)
- With Toka Tū Ake EQC (effective 1 Dec 2022 - 1 Dec 2025)

*Note: our MoU with GNS Science has lapsed and is currently being renegotiated.*

#### International Union of Geological Sciences (IUGS)

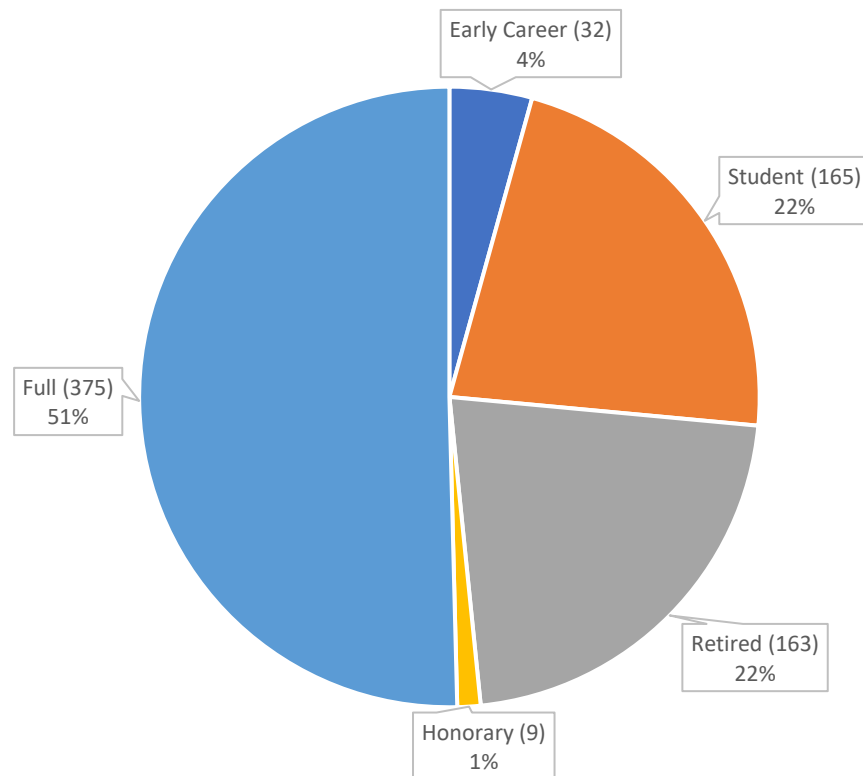
Our long-time representative Nick Mortimer stepped down in early 2024. We thank Nick for his many years of service and representations, and welcome Kari Bassett as the primary contact for the GSNZ as an adhering member of the IUGS.

Martin Crundwell continues his roles as the New Zealand representative on both the IUGS Subcommission on Neogene Stratigraphy and IUGS Subcommission on Quaternary Stratigraphy.



## Membership

As of 31 March 2024, the GSNZ had 752 individual members, a small increase on the previous year. Membership was made up of the following types:



## Honorary Life Members

In 2023 Jarg Pettinga was awarded Honorary Life Membership and joins a distinguished group as follows:

Year	Life Member	Year	Life Member
2023	Jarg Pettinga	2016	Mike Johnston
2022	Vince Neall	2015	Jack Grant-Mackie
2021	Julie Palmer	2014	David Skinner
2020	Glenn Vallender	2013	Bruce Hayward
2019	Nick Mortimer	2012	Simon Nathan
2018	Janet George	2011	Bruce Thompson
2017	Campbell Nelson	1996	William Ian Reilly (Geophysics Society)

## Regional Statistics

Based on self-indication of Branch membership, as of the date of this report the number of members we have in each region are as follows (figures in brackets represent the previous year):

<b>Region</b>	<b>Branch membership</b>
Auckland	116 (128)
Waikato	49 (54)
Bay of Plenty	18 (20)
Taranaki	19 (17)
Manawatu	47 (50)
Wellington	256 (236)
Canterbury	100 (100)
Otago	88 (78)
Overseas	53 (58)

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A summary of each branches' activities throughout the year can be found in the Branch Reports section of this report.

## Publications

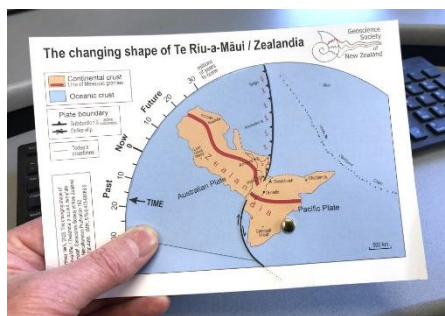
**Publication Sales (re-elected 2023): Alex Nicols (University of Canterbury, Christchurch).**

**Publications Convenor (re-elected 2023): Matt Sagar (GNS Science, Lower Hutt)**

## Publications Projects

The following GSNZ-approved projects were in progress and/or published in the 2023-24 financial year.

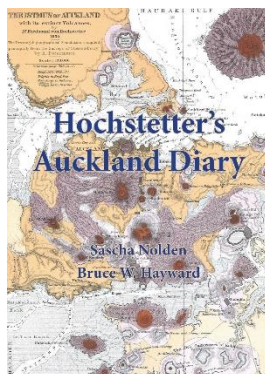
### The Changing Shape of Te Riu-a-Māui Zealandia, Nick Mortimer



This educational two-plate, one-pole tectonic model shows the changing shape of Zealandia in geological time. Published in PDF, available for free download from the GSNZ website:

<https://gsnz.org.nz/publications-and-webstore/product/169>

### Hochstetter's Auckland Diary: 22 December 1858–5 March 1859, Sascha Nolden and Bruce W. Hayward



This publication presents the first annotated English translation of Hochstetter's manuscript German language diary from his initial stay in Auckland during the period 22 December 1858 to 5 March 1859. Published as Miscellaneous Publication 163 in both paperback (limited run) and as a PDF, available for free download from the GSNZ website: <https://gsnz.org.nz/publications-and-webstore/product/170>

### Earthwise journal



Doctor Bruce Waterhouse has self-published Earthwise since 1998. The journal represents his personal view of late Paleozoic and Triassic biostratigraphy, and the morphology, systematics and evolution of Late Paleozoic and Triassic brachiopods. Most volumes deal with East Australian and New Zealand faunas. The online version is hosted by the Geoscience Society of New Zealand (<https://gsnz.org.nz/publications-and-webstore/product/171>).

It was compiled by Donald MacFarlan from files and printed copies supplied by Bruce, and a digital set supplied by Drs Guang Shi and Sangmin Lee, University of Wollongong, with some additional scans. The intent is to establish a "home" for Earthwise that can be freely accessed on-line by researchers interested in Palaeozoic–Mesozoic invertebrate palaeontology and stratigraphy, and brachiopod studies in particular. The enthusiastic support of Guang Shi, Sangmin Lee, Hamish Campbell, and Matt Sagar made this possible.

### Geology of Karioi Maunga, Aotearoa by Oliver McLeod et al.

Oliver McLeod is currently making revisions based on reviews by Shane Rooyakkers, Dougal Townsend, and Graham Leonard. Publication as Miscellaneous Publication 165 in the first half of 2024 is eagerly anticipated.

### Geoscience Society of New Zealand Annual Conference 2023, Wellington, Programme and Abstracts Volume

Frontin-Rollet G.E., Nodder S.D. eds. (2023). Geoscience Society of New Zealand Annual Conference 2023: Programme and Abstracts Volume. Miscellaneous Publication 164A. Wellington, New Zealand, Geoscience Society of New Zealand. 281 p.

PDF available for free download from the GSNZ website: <https://gsnz.org.nz/publications-and-webstore/product/116>

### Geoscience Society of New Zealand Annual Conference 2023, Wellington, Field Trip Guides

Nodder S.D. ed. (2023). Geoscience Society of New Zealand Annual Conference 2023: Field Trip Guides. Miscellaneous Publication 164B. Wellington, New Zealand, Geoscience Society of New Zealand.

PDF available for free download from the GSNZ website: <https://gsnz.org.nz/publications-and-webstore/product/108>

## Publication Sales

Publications	Retail Price	Quantity Sold	Member Price	Quantity Sold	Value Sold
<i>A geologist remembers</i>	\$20.00	0	\$12.00	0	\$0.00
<i>Auckland guide</i>	\$10.00	0			\$0.00
<i>Central Rocks</i>	\$20.00	0			\$0.00
<i>Cobb Valley</i>	\$10.00	0			\$0.00
<i>Ewan Fordyce: Tributes</i>	\$10.00	7			\$70.00
<i>Flying High</i>	\$40.00	2			\$80.00
<i>Geyserland</i>	\$20.00	2	\$12.00	1	\$52.00
<i>Granite and Marble</i>	\$15.00	0			\$0.00
<i>Harold Wellman</i>	\$20.00	2			\$40.00
<i>Hochstetter's Auckland Diary</i>	\$40.00	11			\$440.00
<i>Hochstetter's Nelson Diary</i>	\$14.00	0	\$10.00	2	\$20.00
<i>Hochstetter's Nelson First Diary</i>	\$20.00	0	\$10.00	1	\$10.00
<i>James Hector</i>	\$20.00	1	\$12.00	0	\$20.00
<i>Karst in Stone</i>	\$12.00	0	\$6.00	1	\$6.00
<i>Mountains to Meteorites</i>	\$20.00	1	\$12.00	0	\$20.00
<i>On the Edge</i>	\$18.00	3			\$54.00
<i>Pirongia</i>	\$30.00	5			\$150.00
<i>Precious Land</i>	\$15.00	0			\$0.00
<i>Queenstown guide</i>	\$10.00	1			\$10.00
<i>Red Rocks</i>	\$10.00	3			\$30.00
<i>Taranaki guide</i>	\$10.00	2			\$20.00
<i>Volcanoes</i>	\$50.00	0			\$0.00
<i>Wandering River</i>	\$20.00	12			\$240.00
<b>Others</b>					
<i>Field Wallet</i>	\$10.00	10			\$100.00
<i>Zealandia Glass</i>	\$25.00		\$19.95	1	\$19.95
<b>Total</b>				68	\$1,381.95

In addition, the following publications were sold on the Society's behalf by Bateman Books and GNS Science:

Publications	Number sold	Value Sold	Payment Received
A Continent on the Move	184	\$3,838.36	\$2,869.17

## Awards and Grants

### Society Awards

**Awards subcommittee:** Sam McColl (Chair, GNS Science); Sophie Briggs (University of Otago); Tim Stahl (University of Canterbury); Ludmila Adam (University of Auckland); Andrew La Croix (University of Waikato).

A summary of 2023 Society awards is given below. For full awards citations see: [https://docs.google.com/document/d/1fstTjzyZ43RbDJS9VgrTkH5TzhGABhA/edit?usp=drive\\_link&oid=103487077839661106396&rtpof=true&sd=true](https://docs.google.com/document/d/1fstTjzyZ43RbDJS9VgrTkH5TzhGABhA/edit?usp=drive_link&oid=103487077839661106396&rtpof=true&sd=true)

### General Awards

Name of Award	Recipient	Details
<b>Honorary Life Member</b>	Jarg Pettinga; University of Canterbury.	For sustained contributions to the Society and its activities since joining the Society in 1974, including multiple committee and branch roles, leading GSNZ events, advocacy, and geoscientific contributions to the community.
<b>McKay Hammer</b>	Finn Illsley-Kemp; Te Herenga Waka Victoria University of Wellington	For three impactful publications, providing innovative and timely work on the seismicity associated with Taupō volcano, and for promoting the value of engagement with local communities and indigenous peoples in geoscientific research.
<b>Hochstetter Lecturer</b>	David Barrell; GNS Science.	The talk “The sea versus the land – will there be a winner?” will explore forthcoming changes to Aotearoa’s coast, and underscore scientific questions, the pathway of discovery and enquiry, and what it means in wider contexts of Zealandia’s geological, tectonic, and landscape evolution.
<b>S.H. Wilson Prize</b>	N/A	<i>This is awarded every four years. The next award will be made in 2025.</i>
<b>New Zealand Geophysics Prize</b>	Bryant Chow; Te Herenga Waka Victoria University of Wellington	For two ground-breaking papers that outline the development and interpretation of a new North Island-wide seismic velocity model that has unique sensitivity compared to previous travel-time tomography based models.

*“Jarg’s contribution to future generations of earth scientists and...the geosciences in New Zealand has been commendable”*

*“we have been fortunate to witness first-hand David’s enthusiasm for New Zealand’s landscapes....”*

*“Margaret should be very proud of what she is achieving as a manager and leader.”*

*“...the only shark ‘spiral valve’ fossil found in New Zealand.”*

<b>Werner Guggenbach Prize for Geochemistry</b>	Raimundo Brahm; Te Herenga Waka Victoria University of Wellington	For a publication on compositions of olivine-hosted glassy melt inclusions selected from tephra erupted from several Japanese volcanoes to assess how the magmas they represent evolved, and their explosivity.
<b>Hayward Geo-Communication</b>	Ben Kennedy and his volcano science communication team; University of Canterbury.	For two outstanding contributions towards geocommunication and outreach; accurate and timely information shared following the 2019 Whakaari eruption; and the planning and delivery of the highly successful Volcanofest in Rotorua.
<b>Kingma Award</b>	Margaret Norris; GNS Science	For more than 33 years of outstanding technical support and leadership in the Rafter Radiocarbon Laboratory at GNS Science.
<b>Harold Wellman Prize</b>	Derek Batchelor	For discovering a shark spiral valve, which is the only one to have been found in New Zealand and one of few found anywhere in the world.
<b>Pullar-Vucetich Prize</b>	(not awarded)	<i>(The Pullar-Vucetich Prize is awarded biennially in even years, to the author(s) of the most meritorious contribution to tephrochronological research).</i>
<b>Alan Mason Historical Studies Fund</b>	N/A	<i>(Not awarded in 2023)</i>

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Student Awards

Name of Award	Recipient	Details
<b>Wellman Research Award</b>	Rachael Baxter; University of Otago	To undertake melting/equilibration experiments on alkali basalts from the Auckland Volcanic Field, to assess the final depth of storage for Auckland Volcanic Field magmas, and to calibrate a barometer for intra-plate magmas more generally.
<b>John Beavan Geodetic Fieldwork Fund</b>	Holly Still; University of Otago	To install a network of GNSS units on the McMurdo Ice Shelf of Antarctica to measure its velocity and deformation.
<b>Jim Ansell Geophysics Scholarship</b>	Codee-Leigh Williams; Te Herenga Waka Victoria University of Wellington	To support their work developing a new workflow for earthquake catalogues in New Zealand. The new workflow will update and enhance the GeoNet catalogue, resulting in fewer events being mislocated or not located at all.
<b>Hornibrook Award</b>	Alexey Ippolitov; Te Herenga Waka Victoria University of Wellington	For work on a biostratigraphic timeframe for the Mid-Late Cretaceous strata of the Southern Hemisphere, using infrazonal stratigraphy of belemnites (coleoid molluscs, related to extant squids).
<b>NZ SAGE Scholarship</b>	N/A	<i>(Lars Hansen awarded but was unable to take up the scholarship.)</i>
<b>S.J. Hastie Scholarships</b>	University of Auckland: Danielle Meek University of Canterbury: Brianna Kirkham Massey University: Joseph Flemming University of Otago: Mike (Yutong) Wu Victoria University of Wellington: Lottie Stevenson University of Waikato: Charlotte Blacker	

A number of other awards, prizes and grants are awarded by individual branches of the Society. See the Branch reports for these.



## Travel Grants

Travel grants to support attendance at the GSNZ Annual Conference by students, ECRs and parents of young children included the following recipients:

Recipient	Institution
<b>Student Travel Grants</b>	
Michelle Fitzgerald	University of Otago
Dante Freat	University of Otago
Marista Nisa	University of Otago
Wendel Broek	University of Otago
Emeline Wavelet	University of Otago
Julian Eschenroeder	University of Otago
Nadine Cooper	University of Otago
Rachael Baxter	University of Otago
Javiera Ruz	University of Otago
Will Oliver	University of Otago
Kirsten Lewis	University of Canterbury
Henry Hoult	University of Canterbury
Laura Hughes	Victoria University of Wellington
Hannah Martin	University of Auckland
<b>ECR Travel Grants</b>	
<i>(no applications received)</i>	
<b>Childcare support grants</b>	
Rasika Nandana	Victoria University of Wellington

## Annual Conference Prizes

Prize	Recipients	Institution
Oral presentation – winner	Katie Hughes	Victoria University of Wellington
Oral presentation – runner-up	Kerstin Gruender	Victoria University of Wellington
Poster – winner	Stephen Kwong	Victoria University of Wellington
Poster – runner-up	Abigail Underwood	University of Canterbury
Poster – runner-up	Michelle Fitzgerald	University of Otago
Poster – runner-up	Javiera Andrea Ruz Ginouves	University of Otago

## Events

GSNZ National Events this period were coordinated by Angela Griffin with assistance from the National Committee.

*Note: for GSNZ Annual Conference and EarthFest 2023 reports please see Appendices.*

### Photography Competition

Since 2020 we have held an annual photography competition for all members of GSNZ to show off their photographic talent. This year we had three categories: Before and After, Perspective, and Fail Army. “Fail Army” was an open category, while “Before and After” and “Perspective” had three separate divisions: adult, tertiary student and school student. Prizes were as follows:

	<i>Adult</i>	<i>Tertiary Student</i>	<i>School Student</i>
<b>Before and After</b>	\$50	\$50	hand lens
<b>Perspective</b>	\$50	\$50	hand lens
<b>Fail Army</b>	“magic” heat-changing mug printed with winning photo		

A total of 10 photographs were submitted by five people, across five categories and divisions (see below). There were no school student entries for the 2023 competition. Winners were decided by the National Committee.

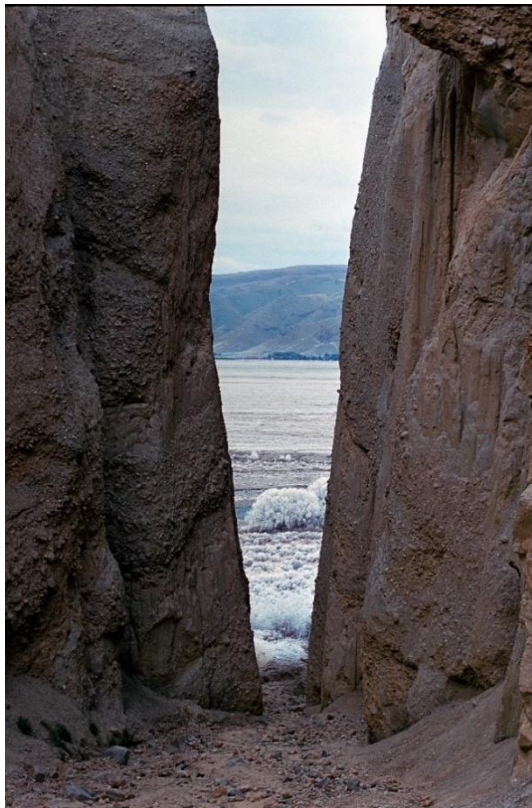
	<i>Adult</i>	<i>Tertiary Student</i>	<i>School Student</i>
<b>Before and After</b>	2	1	0
<b>Perspective</b>	3	2	0
<b>Fail Army</b>	2 entries (open category)		

Winners of the 2023 GSNZ Photo Competition:

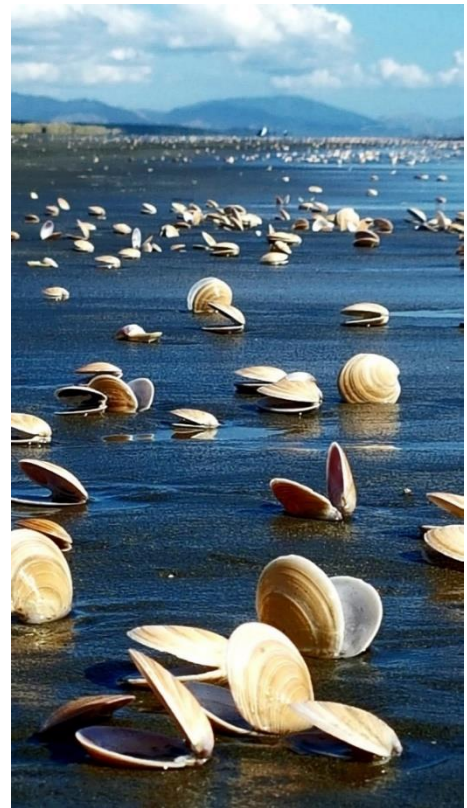
**Before and After  
(Adult): "Fumeroles"  
by Katherine Bain**



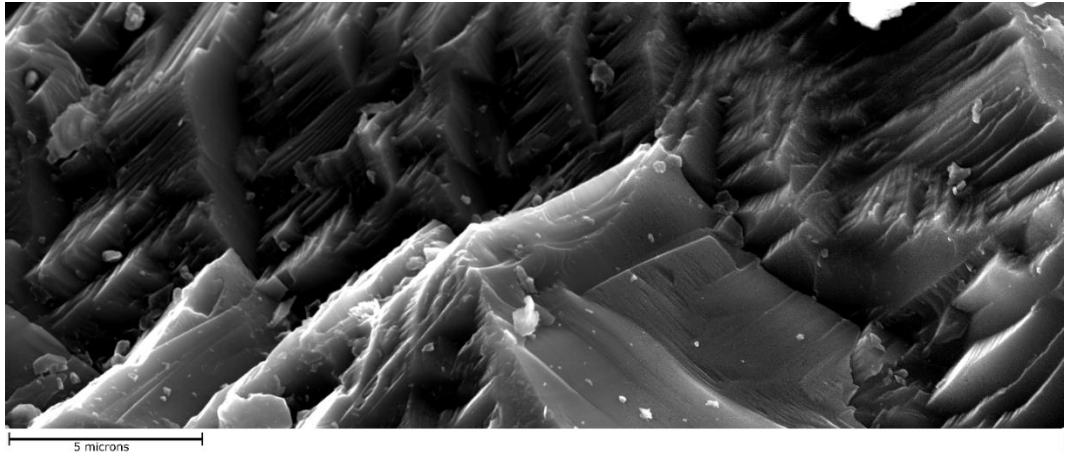
**Before and After (Tertiary Student):  
"Gate of Clay" by Anthony Shorrock**



**Perspective (Adult): "Kuku Beach mass  
shell stranding" by Murray Baker**



**Perspective (Tertiary Student): “Mountains in microns” by Rachael Baxter**



**Fail Army (Open): “Incoming Tide” by Paul Viskovic**



## Geobake

Each year we run a Geobake on 16 March to celebrate Hector Day (New Zealand's annual national geosciences day held close to the birthday of pioneering NZ geoscientist, James Hector). The Geobake is initiated by the National Committee, but the intention is to encourage social interaction at a local level. Branches or other community groupings are encouraged to meet informally to celebrate Hector Day and consume the baking.

People design and bake something edible and tasty with a geoscience theme, to share with their community or eat at home. They then email details (including a photograph) to the Events group for the national judging. This year there were nine entries (all of a very high standard) and the winner (see below) won a free one-year subscription to GSNZ (2024-25). Second places went to Charlotte Blackler and Zane Sheern (University of Waikato) and Jenny Stein, while third places went to Susi Woelz and Christof Mueller (NIWA and GNS, respectively) and Kirsty Vincent (University of Waikato).

**Winning entry in the 2024 Geobake competition: "Columnar jointed basalt" by Katerina Korolevskaya**



*This cake represents the columnar jointed basalt found in the Dunedin area, specifically the Organ Pipes. It has a red velvet sponge inside to represent the mafic basalt, and a black sesame-based meringue arranged in hexagonal columns with a dusting of cocoa to mimic the Organ Pipes' weathered grey surface.*

**Angela Griffin**  
Events Team Leader

# Communications

## Newsletter

The post of newsletter editor has remained vacant for much of the year as we struggle to find replacement(s) for Janis Russell. Members of the National Committee have been teaming up to continue publishing newsletters until such time as a permanent editor or editorial team could be found. We thank Matt Sagar, Alex Nichols, Jenny Stein and Angela Griffin for their time and effort.

Meanwhile we are delighted that we recently found two people who are keen to take on the Newsletter Editor position: Hannah Martin and Brigitte Shepherd. Members of the committee have been helping them get to know the processes involved in compiling our tri-yearly newsletter. The National Committee have also agreed to purchase an Adobe software licence subscription to enable them to prepare the newsletter to the same high standard set by Janis, and to use her templates. We anticipate their first issue of *Geoscientist Aotearoa* will be published in July 2024.

## Content

Issue	Articles/Features	SIG Reports	Other reports*	Number of pages
<b>GA3 (NL40) July 2023:</b>	4	0	7	46
<b>GA4 (NL41) November 2023:</b>	5	0	4	50
<b>GA5 (NL42) March 2024:</b>	3	0	6	62

*\*These include reviews and reports from the general membership but not general reporting of regular matters e.g. award winners or event/survey results.*

**Jenny Stein**  
GSNZ Secretary

## Website

In the 2022-2023 Google updated their analytics portal and a functioning connection that would enable our website traffic to be tracked and analysed has not been restored.

### Newsflashes & Social Media

Newsflashes continue to be our most commonly used channel to communicate with our members. In the year to 31 March 2024, we sent 13 Newsflashes to our members. The open rate regularly exceeded 50% and was sometimes as high as 60%. This compares extremely favourably with the industry average of 40%. Each Newsflash carries a mix of Society news and a curation of geoscience news, especially where a GSNZ member is featured.

The majority of our readers are based in New Zealand but there are members in the USA, Australia, Japan and throughout Europe who regularly read the Newsflashes.

In addition, we use social media to advertise events and other Society and geoscience news. Our main channel is Facebook but we also have Linked In, You Tube, Twitter and Instagram accounts.



Facebook

<https://www.facebook.com/GeoSocNZ>



Twitter

<https://twitter.com/GeoscienceNZ>



LinkedIn

<https://nz.linkedin.com/company/geoscience-society-of-new-zealand>



YouTube

[https://www.youtube.com/channel/UCLIZ45T-9ccRMmjUh\\_Xb9JQ](https://www.youtube.com/channel/UCLIZ45T-9ccRMmjUh_Xb9JQ)

**Nicki Sayers**  
GSNZ Administrator

## Branch Reports

### Auckland

The Auckland Branch was established under the former 'Geological Society of NZ' in 1956 and was centred around the former Geology Department at the University of Auckland, now a part of the School of Environment. The Auckland GeoClub (established in 1992 at the Auckland Museum) is an affiliated section of the Auckland Branch comprising amateurs and professionals with a common interest in New Zealand's geology and fossils. The Auckland GeoClub is run autonomously, and many of its members are not members of the national body (Geoscience Society of N.Z.), except those registered for both. However, the GeoClub liaises frequently, and jointly runs activities with, the Auckland Branch and its activities are traditionally included with the Auckland Branch activities when the Auckland Branch reports to the National Committee.

**Branch Committee for 2023-24 Committee Members:** Jennifer Eccles (Auckland Branch Rep)

**Geoclub Committee:** Bruce Hayward (Convenor), Hugh Grenfell, Garry Carr (Treasurer), Wendy Goad, Christine Major, Peter Scott, Jill Kenny (Geocene editor), Maureen Burke, Kath Prickett, Linda Hill, Lee Sawyer, Liz Hoskin.

**Branch representative on National Committee:** Michael Rowe

**No. of paid GSNZ members as at 31 March 2024:** 116; Geoclub has 133 members.

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Hochstetter Lecture	Kaikōura Earthquake – Tales from the seafloor by Lorna Strachan	26/09/2023	114	
Geoclub Meeting April	"Cenozoic paleogeographic and tectonic evolution of northern Zealandia" by Rupert Sutherland		45	
Geoclub Meeting May	"The influence of landslides on river dynamics in Aotearoa New Zealand" by Jon Tunnicliffe.		37	
Geoclub Meeting Jun	"Paleomagnetism" by Jennifer Eccles		34	
Geoclub Meeting Jul	"Late Pleistocene sediments and trace fossils in Africa and the origins of Homo sapiens." by Willo Stear		33	
Geoclub Meeting Aug	"The Curnamona Province, Australia - mysteries of a craton under cover" by Helen Williams.		29	
Geoclub Meeting Sep	"Energy use in New Zealand, past, present and future", by Nick Powell.		31	



Geoclub Meeting Oct	“Slope instability in Auckland associated with Anniversary Weekend & Cyclone Gabrielle rainfall events”, by Cameron Lines.		42
Geoclub Meeting Nov	Book Launch – “Hochstetter’s Auckland Diary” by Bruce Hayward		43
Geoclub Meeting Dec	Members’ presentations: John Auckland on the geology and iron mining of Yorkshire; Rhiannon Daymond-King on Prototaxites; Anthony Blaschke on two books on the Westport area we had just visited; Geoff Sawyer on sailing the coast from Auckland to Napier; Wendy Goad on a geology quiz 2023; William Cairns on geology museums and mines in Spain and Portugal; Bruce Hayward on 2023 Geoclub field trips; Rhiannon Daymond-King on Geology memes; Peter Scott on the main trunk line; Bruce Hayward on Undara lava tubes.		29
Geoclub Meeting Feb	Three shorter talks: The Investigation into the Geologically Recent Activity of the Mangatangi Fault in the Hunua Ranges by Hannah Martin. Update on 19 <sup>th</sup> Century mineral dealer collections in New Zealand, by Hugh Grenfell. Mangere Pliocene fossils by Bruce Hayward.		36
Geoclub Meeting Mar	"Waikato lakes and paleolakes – distribution, origins, and history” by David Lowe		43
Geoclub Pot Luck dinner and Geoquiz	Liz Hoskin abode	Aug	32
Geoclub Field Trip	Renton Rd fossil forest and landslips led by Bruce Hayward	Apr	15
Geoclub Field Trip	Rotorua (5 days) led by Bruce Hayward	Apr	21
Geoclub Field Trip	Tamaki Estuary intertidal led by Bruce Hayward	Apr	12
Geoclub Field Trip	Riverhead boat trip led by Bruce Hayward	May	32
Geoclub Field Trip	S Kaipara moa footprints led by Bruce Hayward	May	19
Geoclub Field Trip	South Auckland drive around led by Wendy Goad	Jun	11
Geoclub Field Trip	Mt Roskill led by Hugh Grenfell	Jul	12

Geoclub Field Trip	Piha landslips led by Bruce Hayward	Sep	26
Geoclub Field Trip	Mangawhai Heads led by Garry Carr	Oct	14
Geoclub Field Trip	North Westland (7 days) led by Bruce Hayward	Nov	30
Geoclub Field Trip	Omaha led by Bruce Hayward	Nov	22
Geoclub Field Trip	Christmas BBQ Stonefields	Dec	27
Geoclub Field Trip	Tawharanui Regional Park led by Bruce Hayward	Feb	22
Geoclub Field Trip	Tapapakanga led by Bruce Hayward (wet)	Mar	4
Auckland Heritage Festival field trip	Three Central Auckland Volcanoes led by Bruce Hayward	Oct	40
Auckland Heritage Festival field trip	Geology and geomorphology of South Auckland led by Wendy Goad	Oct	14
Auckland Heritage Festival field trip	Buckland's Beach led by Bruce Hayward	Oct	17
Auckland Heritage Festival field trip	Whangaparaoa – Army Bay led by Bruce Hayward	Oct	44
Auckland Heritage Festival field trip	Otuataua and Waitomokia volcanoes led by Hugh Grenfell	Oct	35

### Branch Prizes

Prize Name	Winners	Prize
Auckland Science Fair	Shake it off - Sharma and Nitsingham	\$150 + book (co-sponsored with Geoclub)
Central Northland Science Fair	Lowering land - Spillane	\$150 + book (co-sponsored with Geoclub)

### Branch Publications

Details	Link
<p><b>Geocene 32:</b></p> <ul style="list-style-type: none"> <li>The conundrum at Queen Victoria Rock, Rangitoto, revisited</li> <li>The wide diversity of clasts in Piha Conglomerate at South Piha</li> <li>Fossil faecal pellets in fossil Janthina found at Kaawa Beach, Auckland southwest coast, Early Pliocene (5.3–3.7myr old)</li> <li>Red Beach—What's in a name?</li> </ul>	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE86491631">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE86491631</a>

- Auckland Geology Club 30th birthday
- Graham Gibson, Auckland Geology Club committee member, 1995–99

### Geocene 33:

- Requiem for a doomed iconic roadcut: Slide movement in the Miocene Waitematā basin
- Matukutūreia/McLaughlins Mt explosion crater and tuff ring arc hypothesis proven
- Southern Kaimai Range exploration
- Geology of Motu Kaikoura, Aotea/Great Barrier
- An unusual fossil find at Castlecliffian Onepuhi fossil beds, Rangitikei River, Manawatū-Whanganui region
- The geology responsible for the recent slips on Maungakiekie/One Tree Hill
- Memories of Doug Denize, Geoclub member

[https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps\\_pid=IE87942724](https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE87942724)

### Geocene 34:

- Who was Frederick Septimus Peppercorne?
- Improved exposures alongside Northcote Road provide greater insight into Pupuke Volcano eruptions
- The origin of unusual beach deposits at Achilles Point, Musick Point and Otata Island, Auckland
- The perils of Chat GPT
- Late Cretaceous shell fragment with Early Miocene bryozoa from the Waiitiiti Formation, Hokianga, reveals a complex history and paleoecology
- Memories of Warren Spence, Geoclubber extraordinaire 1992–2019

[https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps\\_pid=IE89128582](https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE89128582)

### Geocene 35:

- A walk through the floor of the Paleo-Pacific Ocean north of Long Beach
- Is Neogene uplift and eastward tilt of Great Barrier and Coromandfel Range related to the origin of the Hauraki Gulf?
- Dendritic baryte crystals from Waiwera
- A late Miocene paleovalley at Hihi: insights into the history of the antecedent Oruaiti River, Doubtless Bay.
- Orbicular granite: an update on the Murchison Boulder and another site, Little Hohonu River, Kumara
- The Russell collection
- Memories of Malcolm Simpson (1936-2022) – Geoclub’s gentleman-statesman

[https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps\\_pid=IE90775204](https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE90775204)

**Additional Branch Comments**

(None)

**Summary of Branch Accounts**

<b>Date</b>	<b>Particulars</b>	<b>Credit</b>	<b>Debit</b>	<b>Balance</b>
<i>01/04/2023</i>	<i>Opening Balance</i>			<i>\$2,239.12</i>
19/05/2023	Science Fair (Whangarei; Auckland still has money held over from Covid cancellation)		\$100	
24/08/2023	Branch Grant	\$556		
<i>31/03/2024</i>	<i>Closing Balance</i>			<i>\$2,695.12</i>

## Waikato

The Waikato Branch was established under the former 'Geological Society of NZ' in 1975 as a combined Waikato/Bay of Plenty Branch and was centred around the former Earth Sciences Department at the University of Waikato, now a part of the School of Science.

Bay of Plenty has now formed a separate branch but its finances are held under the Waikato branch. The Taupō members have formed a mini branch centred around GNS Wairakei.

### Branch Committee for 2023-24 Committee Members:

Oliver McLeod, Andrew La Croix, Adrian Pittari, Kirsty Vincent

**Branch representative on National Committee:** Oliver McLeod, Andrew La Croix

**No. of paid GSNZ members as at 31 March 2024:** 49

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
President's Lecture	N/A	Not held	-	
Hochstetter Lecture	Lorna Strachan	05/09/23	~30	
Hochstetter Supporting Lecture	N/A	Not held	-	
Hector Day Bake-Off	Taste Test, U. Waikato Tea Room		~5	~5

### Branch Prizes

Prize	Winners	Award
Annual University of Waikato School of Science Postgraduate Conference, Geoscience Society of NZ (Waikato) Award for the best geoscience-related oral presentation.	Robert Brodnax, for a masters presentation on Temporal and spatial variations in the binding properties of organic ligands in cave systems, extracted from speleothems	\$100
Waikato Regional Science and Technology Fair – Geoscience Society Award for an excellent exhibit with Geoscience	Kion Hara-Liui (Peachgrove Intermediate School) for an exhibit on Soil Liquefaction	\$100

## Branch Publications

(None)

## Additional Branch Comments

Change of Branch Chair from Andrew La Croix to Oliver McLeod (7/12/23)

The winning student of the WRST Fair special award - Geoscience Society Award - was highlighted in the NZ Herald (Waikato News), by reporter Kate Durie, "Peachgrove Intermediate's third year winning best school at Waikato Regional Science and Technology Fair", 25 Sept., 2023 (in print and online).

<https://www.nzherald.co.nz/waikato-news/news/peachgrove-intermediates-third-year-winning-best-school-at-waikato-regional-science-and-technology-fair/U3XPXE6L65GGNJAQBRRXZBJO5Q/>

## Summary of Branch Accounts

Date	Particulars	Credit	Debit	Balance
01/04/2023	Opening Balance			\$393.22 <sup>1</sup>
06/04/2023	Hector Day Bake-Off Award <sup>2</sup>		50.00	
24/08/2023	GSNZ Bay of Plenty Grant <sup>3</sup>	140.00		
24/08/2023	GSNZ Waikato Branch Grant	368.00		
01/09/2023	Waikato Regional Science and Technology Fair Prize		100.00	
06/09/2023	Hochstetter Lecturer Dinner		29.50	
27/10/2023	Postgraduate Conference Award		100.00	
31/03/2024	Closing Balance			\$621.72 <sup>4</sup>

<sup>1</sup>Including \$138 holding for the Bay of Plenty Branch

<sup>2</sup>Indicated in the 2022-23 Summary, but paid in the 2023-24 Financial Year

<sup>3</sup>Received on behalf of the Bay of Plenty Branch

<sup>4</sup>Including \$278 holding for the Bay of Plenty Branch

## Bay of Plenty

GSNZ Bay of Plenty Branch – including members within the Bay of Plenty – retired, industry, government, students and university.

**Branch Committee for 2023-24 Committee Members:** Ben Simons

**Branch representative on National Committee:** (not applicable; less than 20 members)

**No. of paid GSNZ members as at 31 March 2024:** 18

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
President's Lecture		?		
Hochstetter Lecture	Hosted at Waikato University Tauranga campus. Co-publicised through NZGS and ENZ.	28/10/2023	10	26
Hochstetter Supporting Lecture		?		
Tauranga STEM Festival	STEM education street festival hosted in Tauranga CBD. Many hundreds of children and parents visited the booth.	01/10/2023	3 (one from outside of BOP)	

### Branch Prizes

Nil

### Branch Publications

Nil

### Additional Branch Comments

- Difficulties finding speakers for events.
- A few ideas for local geo trips are in planning stages. The branch rep has been ill, but hopes to run some events when the weather is warmer.
- Difficulties finding a suitable venue to host.
- Difficulties in getting attendance.

### Summary of Branch Accounts

Date	Particulars	Credit	Debit	Balance
01/04/2023	Opening Balance			\$272.00
	Paid into Waikato Branch A/C			
31/03/2024	Closing Balance			\$272.00

### Taranaki

Founded in 1978, we became the Taranaki Branch under GSNZ in 1986. Taranaki Geological Society (TGS) membership is paid by subscription; local GSNZ members are automatically members. Monthly meetings (February to December, incl.) feature speakers drawn from academia and industry, as well as local contributors. Field trips, both local and further afield, remain an integral part of the TGS's calendar.

#### **Branch Committee for 2023-24 Committee Members:**

Diane Toole – President (resigned February 2024)

Donald MacFarlan – Treasurer

Sue Hilton – Secretary

Mark Robbins – Newsletter

Colleen Field – Field Trips

Steve Thorstensen – Advertising

Keith Armstrong

Gary Walls-Renwick

Stephen Boot

David Lawrence

Murray Duke (Resigned January 2024)

**Branch representative on National Committee:** (not applicable; less than 20 members)

**No. of paid GSNZ members as at 31 March 2024:** 19

### Taranaki Branch President's Report 2023-2024

The committee elected at the May 2023 AGM:

President Diane Toole

Secretary Sue Hilton

Treasurer Donald McFarlan

Committee

Colleen Field (field trips)

Mark Robbins (newsletter)

Gary Walls-Renwick (supper)

David Lawrence

Stephen Boot

Murray Duke

Diane reluctantly took on a further year as president. She moved back to Nelson in February 2024, Susan Burgess chaired the remaining club nights.



### ***Programme at Disabled Citizens Hall 83 Hine St***

April - Bruce Hayward Origins of NZ's Natural Wonders (100+ sites)

May - AGM. Nessa D'Mello (Massey University) Geochemistry of Mt Taranaki

June - Matthew Vanner (Otago University) 180 million years of the forest biome in NZ

July - Nathan Collins Travertine and speolotherms as recorders of magmatic processes and volcanic eruptions from Mt Taranaki

August - Nick Powell Energy Use in NZ – past present and future

September - Lorna Strachan Kaikoura Earthquake -tales from the seafloor (Hochstetter lecture)

October - Steve Morice (Todd Energy) CO2 Sequestration

November - Nick Mortimer on video Waitaki Whitestone UNESCO Geopark

December - barbecue at Diane's

February - Members night Diane Toole Fossils in Bolca region of northern Italy, Gary Walls-Renwick Coromandel-fossils, Mark Robbins Stewart Island, Steve Thorstensen Stockton open cast coalfield Colleen Field sand specimens, Steve Boot limestone from Eastern Taranaki and South Is green schist.

March - Suzanne Bull (GNS) Ocean landslides and tsunami risk in Taranaki Basin

April - Mark Robbins Ruapehu summit climb and Neil Ingram Sub-antarctic islands

### ***Field trips***

May - Kaipikari Road, Inland Urenui

June - Mt Messenger Bypass

July - Windy Point Limestone Quarry, Inland Waitotara

July - Ototoa Beach, changing sea levels

November - New Taranaki Base Hospital designed to withstand earthquakes and eruptions

February - Diane Toole's rock collection

### ***Science Fair***

No earth science entries this year

**Susan Burgess**  
**Acting Taranaki Branch President**

### TGS Field Trips Report 2023 - 2024

From 1 April 2024 to 31 March 2024, TGS ran 6 Field Trips. Numbers attending ranged from 17 to 4.

(1) 13.5.23. Urenui inland. 17 attended. Searching for crab fossils. Excellent weather. Our thanks, through Leader Karl Raubenheimer, to the farmer who allowed us access. The first site we came across as we followed the track downhill proved to be the most prolific as here, we found an oyster, a Dentalium (Scaphopod, Tusk shell) shell fragments, gastropods, coprolites & a number of concretions containing crabs. All the productive concretions were of almost football-size. So far as we can determine, we were in Late Miocene sediments, in Matemateaonga, Urenui or Mt Messenger Formations. All participants returned home, happy with their finds.

(2) 29.6.23 Mt Messenger bypass project. 16 attended in 2 groups (10:00 & 13:00). We were driven to the working site from Head Office in a van & were closely watched as we examined the uniform face of a 60 degree slope in papa – Mt Messenger Formation. Discussion centred round the iron-banding (?), features that looked like zoophycus and the metre-wide fault off-setting a band of harder material. Impressions – the homogenous nature of the papa, the number of staff allocated to accompany/assist us and the attention to Health & Safety. Verbal thanks – Brenda Fawkner. Written report - Barbara Hammonds.

(3) 7.7.23 Windy Point Limestone Quarry, inland of Maxwell, Waitotara. 4 attended. The site mines shell rock. We were taken to a quarry floor covered with broken pieces which will be used for road stone. The rock is packed with broken shells, we could not find one complete shell. At 300 m asl., we had excellent all-round views with the limestone outcropping at varying heights. Thank you, Craig, for your time, and answering our many questions. Verbal thanks – Alice Dee. Written Report – Dave Lawrence.

(4) 15.7.23 Ototoka Beach. 8 attended. We looked at changing sea levels – Maxwell Group (sandstone & mudstone layers with slabby boulders,) is the oldest & therefore lowest. Butler's Shell Conglomerate (Okehu Group – early Quaternary) with its pebbles & broken shell fossils, lies above this on an undulating boundary. Unconformably overlying this is the Rapanui Formation – marine terrace deposits - overtopped by modern sand dunes. Interesting finds included scallops, coral, coloured pebbles, pumice, barnacles on oysters, clams, echinoids, gastropods & piddock-bored rocks.

(5) 25.11.23 Mokau Cave. CANCELLED. Due to double booking. Intend running FT in new year, 2024.

(6) 27.11.23 Taranaki Base Hospital. 11 attended. We were met at the security gate by Project Manager Nathan Hawkins who for the next 60 minutes talked us through some of the details of building a complex site such as this. He gave us details on materials needed and their source. He took us to see the base isolators – these are designed specifically for a potential Taranaki earthquake & will react differently from those used in Christchurch structures. Commenting on the roof being able to hold an ash fall, he also spoke of plans for a helipad there. Thank you Nathan for a most interesting tour and for your time. We now better appreciate some of the responsibilities inherent in tackling such a project. Barbara Hammonds verbally thanked Nathan.

(7) 3.2.24 Diane Toole’s collection of NZ rocks. 12 attended. Diane explained how she had categorized her rocks and emphasized the importance of labelling to show provenance and name of specimen. As Diane is returning to Nelson, TGS had the opportunity to help her wrap & pack many of the samples. Thank you for your leadership in the time you have been in Taranaki, Diane.

(8) 17.2.24 CANCELLED – lack of interest. Inglewood Fault.

**Colleen Field**  
Field Trips Convenor

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Monthly Meeting	Origins of NZ's Natural Wonders – Bruce Hayward	03/04/23	33	5
Monthly Meeting	Geochemistry of Mt. Taranaki AGM – Nessa D’Mello	01/05/23	26	4
Monthly Meeting	180 million years of the forest biome in NZ – Matthew Vanner	29/05/23	21	2
Monthly Meeting	1.Travertine and speleotherms as recorders of magmatic/volcanic eruptions - Mt. Taranaki. 2. Pliocene fossils–Mangere, Auckland. – Nathan Collins	03/07/23	20	3
Monthly Meeting	Energy Use in NZ – Past, Present and Future – Nick Powell	07/08/23	17	5
Monthly Meeting	Kaikoura Earthquake - <i>Hochstetter Lecture; Lorna Strachan</i>	04/09/23	26	11
Monthly Meeting	Kapuni Carbon Sequestration – Steve Morice	09/10/23	23	3
Monthly Meeting	Nick Mortimer video on Waitaki UNESCO Geopark, Oamaru – cancelled (COVID)	06/11/23	22	--
End of year function	EOY Wind-up BBQ at Diane's farm.	04/12/23	11	--
6 Members	Members' Traveller's Tales	12/02/24	16	1
Monthly Meeting	Underwater landslides - Taranaki Basin; Suzanne Bull	04/03/24	15	3
Field Trip	Urenui inland	13/05/23	17	
Field Trip	Mt. Messenger bypass project	29/06/23	16	
Field Trip	Windy Point Limestone Quarry	07/07/23	4	
Field Trip	Ototoka Beach	15/07/23	8	

Field Trip	Mokau Cave – cancelled – double booking	25/11/23	--
Field Trip	Taranaki Base Hospital	27/11/23	11
Field Trip	Diane Toole's collection of fossils and rocks	03/02/24	12
Field Trip	Inglewood Fault – cancelled – lack of interest	17/02/24	--

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### Branch Prizes

Prize	Winners	Award
Student Prize	Nathan Collins	\$150.00

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#### Note on Student Prize

Our branch is not attached to an university or college, and we do not have members who are geology students. We are therefore unable to run a student prize evening.

For many years we have awarded the student prize to a speaker who is a student (usually a graduate student) elsewhere. We rarely have more than one in a year. We awarded our 2023-24 Student Prize to Nathan Collins on this basis and ask the National Committee for their support.

#### Taranaki Science Fair

We did not contribute to the Taranaki Science Fair in 2023-24 as there were no suitable topics, but are planning to support the fair in 2024-25 by sponsoring a prize and providing judges.

### Branch Publications

(None reported)

### Additional Branch Comments

Summary of Branch Accounts

**GEOSCIENCE SOCIETY OF NZ - Taranaki Branch**  
**Financial Statement for year ended 31 March 2024**  
**Statement of Income & Expenditure**


0.00%					
	<u>2023</u>		<u>2024</u>		<u>2024</u>
	<b>Receipts</b>			<b>Payments</b>	
\$	715.00	Subs and donations in lieu	\$	39.09	Administration (postage, bank etc)
\$	15.00	Publications	\$	787.53	Speakers
\$	358.00	GSNZ grants	\$	103.07	Field Trips
\$	502.39	Interest	\$	150.00	Science fair
\$	-	Toi Trust Annual Grant	\$	-	Student Prize
\$	20.00	Donations	\$	72.42	Social Functions
\$	-	Field Trips	\$	100.00	Gifts
			\$	6.75	books/publications/library
			\$	144.00	venue hire, expenses
			\$	24.99	Miscellaneous
			\$	1,427.85	
			<b>total:</b>	<b>\$ 182.54</b>	<b>Excess Inc over Exp</b>
<b>\$ 1,610.39</b>	<b>Total</b>		<b>\$ 3,024.19</b>	<b>100.0%</b>	<b>\$ 3,024.19</b>

	<b>Balance Sheet</b>				
	<u>2023</u>		<u>2024</u>		
\$	215.00	Next years subs paid in current year	\$	120.00	Current yrs subs paid prev year
\$	25,219.30	accumulated funds	\$	21,500.00	Term deposits
\$	481.91	owed to Treasurer	\$	-	Treasurer reimbursement for prev year
\$	182.54	annual surplus	\$	4,478.75	Current Account
<b>\$ 26,098.75</b>			<b>\$ 28,074.20</b>		<b>\$ 28,074.20</b>

**Financial Review**

Treasurer  
DAB  
MacFarlan

I declare that I have no formal qualifications in accountancy or economics but, in my career as a Registered Valuer, I have had significant experience in the analysis of accounts in order to fulfil the requirements of my profession.  
I have examined the financial records of the Taranaki Branch - Geoscience Society of NZ, Inc. for the year ended 31 March 2024 and acknowledge that, in common with organisations of a similar nature, it has not been possible to verify that all items of income and expenditure have been authorised or accounted for.  
The following recommendations are made for the 2024/25 year.  
1. That current financial practises be maintained  
2. The society has achieved a surplus of over \$2000 this year and I am concerned (as previously alluded to) at the size of the asset that is accumulating in the Reserve account as there appears to be no strategy to reduce it.  
3. Carrying forward of such reserves means that past and current members are unduly levied to the benefit of a future membership.  
For this reason the goal of a no-profit society should be to break even annually.  
4. I would recommend some policy such as the granting of an annual scholarship to a local geology student in order to distribute these funds.  
Subject to these comments, I certify that the above statements correctly summarise the transactions for the year, and show the correct financial position at balance date.  
Ian J Burgess Dip VFM RV(ret) - Reviewer 10/04/2024



## Manawatu

The Manawatu Branch was established under the former 'Geological Society of NZ' in 1979 and is centred around Massey University in Palmerston North, with a strong amateur involvement.

**Branch Committee for 2023-24 Committee Members:** Julie Palmer

**Branch representative on National Committee:** Kat Holt

**No. of paid GSNZ members as at 31 March 2024:** 47

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Lecture	Hochstetter Lecture – Lorna Strachan	19/9/2023	15	20
Lecture	President's Lecture – Kat Holt	22/3/24	20	10

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### Branch Prizes

None in 2023-2024.

### Branch Publications

None in 2023-2024.

### Additional Branch Comments

Very little public/general membership branch activity but the Massey Earth Science community have regular morning tea gatherings and periodic student presentations throughout the year.

### Summary of Branch Accounts

(see next page)

**GSNZ MANAWATU BRANCH TREASURER'S REPORT 1 APRIL 2024**  
**Report for Financial Year 1.4.23 to 31.3.24**

**I& E Account**

	<b>Opening Balance 1.4.23</b>	<b>\$</b>	<b>334.78</b>
Income			
	Subscriptions & donations		
	Branch Grant	\$	-
	Transfer from Bonus Saver	\$	-
Expenses			
	AP to Savings Account	\$	-
	Meeting Expenses		
	Manawatu Science Fair Prize		
	Student Talk Evening Prize		
	Postage		
	<b>Closing Balance 31.3.24</b>	<b>\$</b>	<b>334.78</b>

**Cash and Cheque Account**

	<b>Cash in hand 1 April 2023</b>	<b>\$</b>	<b>27.50</b>
	Cash received through year	\$	-
	Cash spent through year	\$	-
	<b>Cash in hand 31 March 2024</b>	<b>\$</b>	<b>27.50</b>
	Westpac cheque account balance	\$	334.78
	<b><u>Total Cash and Cheque Account</u></b>	<b><u>\$</u></b>	<b><u>362.28</u></b>

**Bonus Saver Account**

	<b>Opening Balance 1.4.23</b>	<b>\$</b>	<b>2,071.55</b>
Income			
	AP from Cheque Account	\$	-
	Interest	\$	20.39
Expenses			
	RWT	-\$	3.58
	Bank Fee	-\$	1.50
	Correction*	-\$	2.81
	<b>Closing Balance 31.3.24</b>	<b>\$</b>	<b>2,084.05</b>

- Please note I've put in a correction of \$2.81 here - I don't have in my possession all the bank statements, but balances are correct for statements dated 26 March 2024 and interest RWT have been taken from the RWT deduction certificate. I've put in a correction so the opening and closing balances are consistent with the bank statements. The difference I'm sure will relate to either interest or bank fees.

## Wellington

The Wellington Branch was established under the former 'Geological Society of NZ' in 1979, but prior to this there was an active Geology Section of the Royal Society of New Zealand. This branch was centred around the former Geology and Geophysics departments at Victoria University of Wellington, now a part of the School of Geography, Environment and Earth Sciences, and the former New Zealand Geological Survey and the New Zealand Oceanographic Institute of the Department of Scientific and Industrial Research, members of which are now mainly from the Crown Research Institutes of GNS Science and NIWA, respectively.

**Branch Committee for 2023-24 Committee Members:** Scott Nodder (NIWA, Secretary), Cliff Atkins (VUW), Liz Kennedy (GNS Science, Treasurer), Stephen Piva (VUW), Matt Ryan (PDP Ltd, geo-consultant), Yaas Shalla (GNS Science), Holly Kennedy (VUW, student).

**Branch representative on National Committee:** Sam McColl (President), Alan Orpin (Treasurer) and Jenny Stein (Secretary), plus committee members Matt Sagar, Angela Griffin and Nicki Sayers (Administrator) are Wellington-based.

**No. of paid GSNZ members as at 31 March 2024:** 256

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Judging: NIWA Science Fair	Guest judges (Liz Kennedy, Yaas Shalla)	17/05/2023	N/A	N/A
Branch Talk	Post-eruption seafloor mapping around Hunga Tonga Hunga Ha'apai volcano - Kevin Mackay (NIWA)	18/05/2023	~40	N/D
Hochstetter Lecture	Kaikōura Earthquake Tales from the seafloor - Lorna Strachan (University of Auckland)	17/08/2023	~50	N/D
Hochstetter Supporting Lecture	Does climate influence the frequency of volcanism and earthquakes? - Lorna Strachan (University of Auckland)	17/08/2023	N/D	N/D
Branch Talk	Volcanic lightning reveals the dynamics of the 15 January 2022 Hunga Tonga volcanic eruption plume and umbrella cloud - Paul Jarvis (GNS Science)	21/09/2023	~20	N/D
Seminar/Prize night: Beanland-Thornley Prize	Seminars by VUW students for the Beanland-Thornley Prize: (1) Sam Loversuch-Thorpe (MSc candidate): Shallow shear wave reflection surveys in urban environments	19/10/2023	~40	N/D



- (2) Nicole Obren (MSc candidate):  
Quantifying extinction risk of  
Aotearoa’s marine molluscs
- (3) Kerstin Gruender (PhD candidate):  
From source to surface:  
Microanalytical insights into  
magmatic processes and  
timescales driving eruptions at Red  
Crater, Tongariro
- (4) Adam Gouwland (MSc candidate):  
Thermal Properties of Rakaia  
Terrane, New Zealand

### Branch Prizes

Prize	Winners	Award
Beanland-Thornley Prize	Sam Loversuch-Thorpe	\$100
Wellington School’s NIWA Science Fair	Judged and awarded by GSNZ Wgtn Branch Science Fair judges	\$350

### Branch Publications

N/A

### Additional Branch Comments

Many thanks to Cliff for organising the bookings of the VUW lecture rooms for the branch talks this year, and the committee for talk organisation and hosting. All talks were also streamed live via Zoom so there were often as many people online as well as at the venue. We are experiencing some difficulties in getting members to engage in the branch activities, especially in putting hands up to give seminars and attending the organised branch talks, which seems to be a flow-on effect post the COVID-19 pandemic and a general feeling that people are too busy and don’t prioritise these meetings despite them also being broadcast online.

The Branch committee was also involved in assisting the organisation of the annual GSNZ conference “Geosciences’23 – Where Plates and People Meet” held at Te Herenga Waka Victoria University of Wellington, 13-17th November 2023. Scott Nodder (NIWA) was the convenor of the Local Organising Committee (LOC), Yaas Shalla (GNS Science) was on the LOC and looked after organising student and ECR events and Cliff Atkins (VUW) assisted with initial venue bookings. Scott and Cliff also co-led local fieldtrips. The conference was a success with almost 400 delegates, ~290 submitted abstracts and a conference surplus of ~\$8000.

### Summary of Branch Accounts

Date	Particulars	Credit	Debit	Balance
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01/04/2023	Bank Balance	2939.32	
	Liability from previous year	0.00	
	Petty cash	77.20	
	<b>Opening Balance</b>		<b>\$3016.52</b>
31/03/2024	Bank Balance	3227.89	
	Liability carried forward	0.00	
	Petty cash - brought forward	77.20	
	Petty cash - earnt	0.00	
	<b>Assets total at end of year*</b>		<b>\$3305.09</b>
	<b>Net profit</b>		<b>\$288.57</b>
<b><u>Revenue</u></b>			
	Petty cash collected	0.00	
	GSNZ Grants	1022.00	
	Interest	66.57	
	<b>Income total</b>		<b>\$1088.57</b>
<b><u>Expenses</u></b>			
	Meeting costs - cheque	0.00	
	Meeting costs - petty cash	0.00	
	Stamp duty	0.00	
	Hochstetter speaker dinner	00.00	
	Student prizes	100.00	
	Science Fair (2022 and 2023)	700.00	
	<b>Expenditure total</b>		<b>\$800.00</b>
	<b>Balance</b>		<b>\$288.57</b>

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## Canterbury

The Canterbury Branch was established under the former 'Geological Society of NZ' in 1961 but had existed independently since 1955 as the Christchurch Colloquium of Geology; the Branch was centred around the Geology Department of Canterbury University, then the Department of Geological Sciences. Since January 2020 Geology is part of the School of Earth and Environment.

**Branch Committee for 2023-24 Committee Members:** Catherine Reid, Alex Nichols

**Branch representative on National Committee:** Alex Nichols, and Catherine Reid (Vice President)

**No. of paid GSNZ members as at 31 March 2024:** 100

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Hochstetter Lecture	Kaikōura Earthquake – Tales from the seafloor - Lorna Strachan (University of Auckland)	13/09/2023	31	
Hochstetter Supporting Lecture	Does climate influence the frequency of volcanism and earthquakes - Lorna Strachan (University of Auckland)	14/09/2023	20	

### Branch Prizes

Nil

### Branch Publications

Nil

### Additional Branch Comments

Nil

### Summary of Branch Accounts

Date	Particulars	Credit	Debit	Balance
01/04/2023	Opening Balance			\$1,043.82
13/09/2023	Hochstetter talk meal		\$166.00	\$882.82
17/10/2023	Reimbursed:			
31/03/2024	Closing Balance			\$882.82

## Otago

Otago and Southland based members of the Geoscience Society of New Zealand. Branch activities are mainly Dunedin-centric, reflecting the majority of the membership who comprise Otago University staff and students, and GNS Science staff.

**Branch Committee for 2023-24 Committee Members:** Nick Mortimer, Sophie Briggs, James Scott, Andrew Gorman, Jack Williams.

**Branch representative on National Committee:** Sophie Briggs

**No. of paid GSNZ members as at 31 March 2024:** 88

### Branch Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Lecture	Tatiana Goded, GNS. Aotearoa/New Zealand's earthquake Felt Reports and their current use in Science	18/04/2023	15	10
Lecture	Navot Morag, Geological Survey of Israel. Formation and exhumation of oceanic crust in the Troodos Ophiolite (Cyprus)	16/05/2023	15	15
Fieldtrip	Sophie White and Marcus Richards, Otago University. Behind the Scenes at the Geology Museum	30/06/2023	15	10
NZ International Science Festival	Dr Rock table staffed by local branch members. Identified and discussed rocks with the public.	5, 7 & 9/07/2023	N/A	50
Lecture	Jamie Gurney, GNS. Discovering and cataloguing previously undocumented Otago and Southland earthquakes, 1855-1929	18/07/2023	15	15
Lecture	David Barrell, GNS. An updated geological map for the Dunedin urban area	22/08/2023	15	20
Fieldtrip	Nick Mortimer, GNS. The geology of The Exchange area, Dunedin	7/09/2023	3	3
Hochstetter Lecture	Lorna Strachan, Auckland University. Kaikoura earthquake - tales from the seafloor	12/09/2023	20	15
Hochstetter Supporting Lecture	Lorna Strachan, Auckland University. Does climate influence the frequency of volcanism and earthquakes?	12/09/2023	20	15
Waitaki Whitestone Geopark Festival	Dr Rock table staffed by local branch members. Identified and discussed rocks with the public.	28 & 29/10/2023	N/A	40
Lecture	Keith Priestley, University of Cambridge. The seismic structure of the Arabia-Eurasia collision zone	5/03/2024	15	20

Geobake, fieldtrip and BBQ	3.30 pm Geobake Afternoon Tea. 4.00 pm Campus Building Stones Fieldtrip. 5.00 pm BBQ/sausage sizzle.	15/03/2024	25	20
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### Branch Prizes

Prize	Winners	Award
Aurora Energy Otago Science & Technology Fair	<p>1st: A Slippy Situation by Elena Garcia and Mirin Judd, Yr 8 Balmacewen Intermediate. Experiments modelling landslides using wet sponge cakes. \$75.</p> <p>2nd: Ichnites by Kaius Webster, Yr 7 Mt Aspiring College. Experiments to establish which substrates best preserve fossil footprints. \$50.</p> <p>3rd: Crystals' Growing Environment. Ella McKeich, Yr 8 Balmacewen Intermediate. Experiments growing crystals at different temperatures. \$25.</p> <p>Commended: Melting Ice Isn't Nice. Sydney Morton, Yr 7 Fairfield School. Experiments investigating land versus sea ice melting rates.</p>	\$75 of the prize total was contributed by GSNZ Otago Branch and \$75 by Otago University Geology Dept.

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### Branch Publications

Nil

### Additional Branch Comments

A steady year of events. Additionally, on 16 Aug 2023 a letter was written from the Branch to Otago University Pro-Vice Chancellor on the proposed Geology Department staff changes.

### Summary of Branch Accounts

Date	Particulars	Credit	Debit	Balance
1/04/2023	<i>Opening Balance</i>			\$2202.72
16/06/23	Aurora Otago Science Fair		75.00	
24/08/23	GSNZ Branch Grant	356.00		
31/08/23	Interest minus tax	14.56		
15/11/23 to 29/11/23	Nine separate donations to Geology Museum Collection, following Ewan Fordyce's funeral	1555.00		
6/12/23	N Mortimer, accumulated expenses: 5x speaker dinners, 1x Dr Rock tablecloth, 1x am tea fieldtrip shout, 1x pm tea biscuits		236.17	
29/02/24	Interest minus tax	23.88		
01/03/24	Interest minus tax	2.43		
31/03/2024	<i>Closing Balance</i>			\$3843.42

## Sub-Committees

### Fossil Record File

The New Zealand Fossil Record File (FRF) is a database of fossil localities, taxonomic identifications, adopted ages, and other related geological and paleontological information, primarily from New Zealand. The FRF is jointly governed by the Geoscience Society of New Zealand and GNS Science. A steering group comprises James Scott (University of Otago), James Crampton (Victoria University of Wellington), Chris Clowes (GNS Science, subcommittee convenor), and Joe Prebble (GNS Science).

In the year to March 2024, data from more than 1000 additional fossil localities were added to the database, bringing the total number of localities to nearly 106,000, from which more than 1.1 million taxonomic occurrences have been recorded, representing at least 22,000 unique taxa (up to 52,000 if one counts all the nomenclatural variants).

The online application that provides users with access to the database, known as “FRED”, responded to ~13,500 data requests in the July 2023-June 2024 year (April to March statistics are not collected but are assumed to be much the same) and we welcomed approximately 70 new users aboard.

The new locality data-entry screens for FRED have been rewritten to include more error-checking and it is hoped further enhancements may be possible during the coming year.

Each year, new research papers appear which reference and sometimes analyse data held in the FRF. That being said, new papers quoting FRF data, even quite substantively, are often difficult to trace and we are never sure we find out about all of them. Some examples from the past year are:

- Claussmann B, Bailleul J, Chanier F, Mahieux G, McArthur AD, Vendeville BC. 2023. Early stages of trench-slope basin development: Insights from mass-transport deposits and their interactions with turbidite systems (southern Hikurangi margin, New Zealand). *Marine and Petroleum Geology* 152 (106191): 1–27, doi: 10.1016/j.marpetgeo.2023.106191
- Kear BP, Roberts AJ, Young G, Terezow M, Mantle DJ, Barros IS, Hurum JH. 2024. Oldest southern sauropterygian reveals early marine reptile globalization. *Current Biology* 34: R553–R563.
- MacFarlan DAB. 2023. Otapirian (Rhaetian) Terebratulida (Brachiopoda) of Zealandia. *Zootaxa* 5374 (1): 1–34, doi: 10.11646/zootaxa.5374.1.1
- van Bakel BWM, Ossó À. 2024. A new ‘Southern Giant Crab’ from a Miocene continental slope palaeoenvironment at Taranaki, North Island, New Zealand. *New Zealand Journal of Geology and Geophysics*, 12 p., doi: 10.1080/00288306.2024.2314472

All operational costs for running the database have been met by GNS Science with funding provided by the Ministry of Business, Innovation and Employment for Nationally Significant Collections and Databases.

**Chris Clowes**  
**Fossil Record File Sub-Committee Convenor**

*“Data from more than 1000 additional fossil localities were added to the database.”*

### Geoheritage

Bruce W Hayward (Convenor, Auckland), Jill Kenny (Northland), Hugh Grenfell (Auckland), Fred Brook (Nelson), Alan Palmer (Manawatu), Karoly Nemeth (Manawatu), Hamish Campbell (Wellington), John Taylor (West Coast), Sophie Briggs (Dunedin), and Daphne Lee (Dunedin).

*“The Geoheritage Committee selected 5 sites to be nominated for inclusion in next IUGS book of second 100 top geoheritage sites.”*

1. We made a verbal submission to the Parliamentary Hearings Committee on Labour’s revised RMA Bill. Results announced with slight improvement were not what we wanted. Wording says Outstanding Natural Features (ONFs) which includes “geological and fossil sites”. Soon after the new government was elected, this revised RMA was dumped and legislation returned to the earlier version as we await with trepidation a replacement National version with less environmental protection.
2. The Geoheritage Committee selected 5 sites to be nominated for inclusion in next IUGS book of second 100 top geoheritage sites and three nominations were prepared and submitted: Muriwai, Rotorua geothermal fields, Fiordland fjords. Others not prepared because there were no volunteers to write them: Rakaia braid plain and Alpine Fault.
3. A short submission submitted to Waikato Regional Council congratulating them on including Geopreservation Features for protection but requesting they be called Geoheritage ONFs, so they are covered by all the ONF related policies and rules.
4. We had consultation with planners from Southland District Council over including a schedule of Geoheritage ONFs and providing a karst GIS layer.
5. We provided GIS polygon layer and site data for Southland region to Southland District Council.
6. We provided GIS polygon layer and site data to Auckland Council upgrading their ONF schedule.
7. The convenor attended a meeting with Whangarei District Council officers and locals and discussed what might be acceptable to slow erosion but retain the best exposures of the Last Interglacial sedimentary sequence at One Tree Pt, Whangarei Harbour. The outcome is not to do any wall in front of the reserve land but allow rip-rap in front of cliff with private houses above.
8. Added to the NZ Geopreservation Inventory:
  - Auckland: Pakihi Island Triassic-Jurassic boundary red chert.
  - Bay of Plenty: Waimangu mud-draped hillsides.
  - Canterbury: Motunau South coast fossils and submarine canyon deposits.
  - Nelson: Maruia Falls.
  - Waikato: Ongatiti Ignimbrite Bluffs.
  - West Coast: Lake Hanlon landslide-dammed lake.

At the end of March 2024 there were 3306 sites in the inventory.

**Bruce Hayward**  
**Geoheritage Sub-Committee Convenor**

## Special Interest Groups

### Early Career Researchers

**Convenor:** Shannen Mills

**Interested members:** 148

The Early Career Researcher SIG is a group that is open to all geoscientists who identify as being Early career researchers. The aims of the ECR SIG are:

- To provide a supportive community for those who identify as ECRs.
- To provide a forum discussion between members working as ECRs.
- To facilitate exchange of ideas and information between ECRs on appropriate topics. For example, post-doctoral scholarships or funding proposals.
- To promote ECRs as collaborators/mentors/academic professionals to reduce career-stage bias in academic opportunities (e.g., panellists, judges, invited presenters).
- To encourage and enhance collegiality within and between geoscience research facilities (e.g., Universities, CRIs) in Australasia.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
ECR SIG online zoom discussion	An open discussion for ECRs to have their say on what they would like to see coming out of GSNZ.	5/09/2023	2	
ECR google document feedback form.	Feedback form to find out how GSNZ could better support ECRs within the geoscience community.	25/09/2023	16	
Alerting to travel fund opportunities.	Email alerting the ECR SIG to a call for applications to the Hutchinson Fund Travel Awards for the 37th IGC.	16/10/2023	-	
ECR Opportunities email	Email alerting the ECR SIG to upcoming opportunities at ANZGG 2024, NZJGG and about the AQUA Mentoring program.	31/10/2023	-	
ECR Opportunities email	Royal Society of New Zealand ECR webinar notification email.	9/04/2024	-	

### SIG Prizes, Publications, Additional Comments, Expenses

Nil



### Geoscience for Future Energy

**Convenor:** Jess Hillman

**Interested members:** 161

The Geoscience for Future Energy Special Interest Group, more commonly known as Energy SIG, aims to bring together members with interests that relate to the production of energy, providing a forum to discuss how geoscience expertise should be involved in addressing the opportunities and challenges involved in making Aotearoa's energy system highly renewable, sustainable and efficient.

This group builds on what was previously the Petroleum Special Interest Group. We encourage new members from across GSNZ, with interests in a wide range of topics relating to energy production. We will be seeking input from members on the group's future direction and activities.

#### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Lunchtime meeting at GSNZ 2023		November 2023	~20	

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#### SIG Prizes

Nil

#### SIG Publications

Three newsletters sent to all members during the year.

#### Additional SIG Comments

The lunchtime meeting at GSNZ 2023 was well attended, with active discussion on the future of the SIG. A particular topic of interest was the possibility of developing a national 'database' of equipment and data relevant to the geoscience community. SIG newsletters have been well received. Due to the SIG lead's high workload and time spent at sea for fieldwork there has been limited progress since December 2023; however, there are plans to arrange online seminars and further newsletters prior to the 2024 GSNZ meeting. Also aiming to get more members involved in the SIG leadership.

#### SIG Expenses

Nil

### Friends of the Pleistocene

**Convenor:** Peter Almond

**Interested members:** 120

Friends of the Pleistocene is a multidisciplinary group with a common interest in the Quaternary Period. Interests include palaeoenvironmental and palaeoclimate proxies; dating techniques including tephrochronology; ocean-atmosphere- cryosphere processes and modelling.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Seminar series	10 online seminars	Monthly, February - November	~10 per seminar	~2 per seminar

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### SIG Prizes, Publications, Additional Comments, Expenses

Nil

### Geochemistry

**Convenor:** TBA (Sebastian Näher has stepped down in 2024)

**Interested members:** 175

The Geochemistry Special Interest Group (GSIG) is for Geoscience Society members interested in geochemical processes in New Zealand. Geochemistry is a highly diverse research field, and we aim to address any related research area such as environmental, isotope and trace element geochemistry, geochronology, thermochronology, organic and biogeochemistry. The aims of the GSIG are to:

- share geochemistry research news and updates within the GSNZ and wider
- establish links between group members to facilitate better connection, exchange and networking of the NZ geochemistry community, and
- connect to other geochemistry groups overseas.

We further aim to promote and support students and young scientists in geochemistry. The Werner F Giggenbach Prize for Geochemistry is awarded to a young New Zealand-based geochemist, who is the first author of the most outstanding publication in the field of geochemistry for the calendar year preceding the current one.

Our newsletters share geochemistry research in progress, new developments and outcomes, geochemical news and announcements, or opinions from the community. We want to raise the profile of geochemistry in New Zealand so that research directions and links are strengthened. We aim for geochemistry-focused sessions, a geochemistry workshop, and a group lunchtime meeting at the GSNZ annual conferences.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
“Geochemical tools and applications” session at GSNZ Annual Conference 2023	Conference session with 8 talks and 8 posters. Session convened by Sebastian Naeher, Dan Sinclair and James Scott.	13/11/2023 - 16/11/2023		
GSIG lunchtime meeting	Meeting/discussion with interested GSIG members about current and future activities of the group. Development of ideas about advancing geochemistry in NZ and supporting geochemists in NZ and beyond.	14/11/2023		
Work with Tourism NZ to bring overseas geochemistry conference to New Zealand	Successful case developed for the next Australian Organic Geochemistry Conference to be held			

Occasional emails to group members

in Wellington in late 2024.  
Important news and announcements, job advertisements or any other emails that were of wider interest to GSIG members.

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### SIG Prizes

Prize	Winners	Award
Werner F Giggenbach Prize for Geochemistry	Raimundo Brahm (Massey University)	

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### SIG Publications

Nil

### Additional SIG Comments

Nil

### SIG Expenses

Nil

## Geoscience Education, Outreach and International Development (GeOID)

**Convenor:** Jenny Stein

**Committee Members:** Jenny Stein, Suzanne Bull, Ben Kennedy, Janis Russell.

**Interested members:** 207

The GeOID SIG is for any GSNZ members involved or interested in the communication of geoscience to non-geoscientific audiences. Whether you work with school students, members of the public, or other experts (such as economists and policy makers), GeOID is a place to share, initiate and celebrate your ideas, efforts and experiences. We are keen to support and promote a multi-faceted approach to outreach that engages with audiences at all levels and incorporates a range of geographical (local, national and international) and cultural (academic, industry, mātauranga Māori and community) perspectives.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			<i>Members</i>	<i>Non-Members</i>
Meeting	GeOID online drop-in session where we formulated key messages for 'saving Earth science'	6/07/2023	~6	
Meeting	GeOID online drop-In Session	6/09/2023	~6	
Earth Science Festival (joint SIG-conference event)	EarthFest 2023; a public earth science festival comprising 27 exhibitors, 3 demonstration, and 3 panel discussions. Attracted 97 participants and ~2000 members of the public.	11/11/2023	20 participated; ? attended	~2000
Field Trip (joint SIG-conference event)	EarthFest 2023 Public Field Trip; invited the public to meet us at designated spots at designated times to hear kōrero about the local geology & landscape. Presented by Jenny Stein, Mike Palin and Nicola Litchfield.	12/11/2023	3 presented	~40 (6 – 28 per stop)
Conference Workshop	"Wanna see something cool?" facilitated by Jenny Stein, featuring presentations: "Developing your key messages" by Daniel Walker & Dacia Herbulock (Science Media Centre), "Compelling Telling - turning key messages into engaging narratives" by Jenny Stein, "Know your audience", "Communicating complexity" and "Presentation Skills – Powerpoints and	13/11/2023	1 presented; 4 attended	6 presented; 20 attended

## Special Interest Groups - Geoscience Education, Outreach and International Development (GeOID)

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	public speaking” by Anna Cardno (GNS Science), “Attracting the eye – a crash course in graphic design” by Nico Speziali (GNS Science), and “Vibrant video – making simple (but good!) videos for social media)” by Sara Horne & Trinita Sampuro (GNS Science).			
Meeting (combined SIG-National Committee event)	Saving Earth Science: Joint university discussion group facilitated by the GSNZ featuring a presentation from Sabina Cleary, Curriculum Lead Writer, Ministry of Education. Featuring a presentation from Sabina Cleary, Curriculum Lead Writer, Ministry of Education.	14/11/2023	~30	
Networking Lunch	A Crowd of Communicators: GeOID – SCANZ combined networking lunch	15/11/2023	~6	~16
Conference Session	Geoscience Communication & Culturally Responsive Geoscience	15/11/2023	~50	
GEOTalk (online)	“Teaching science communication and bicultural competence in a university volcanology class” by Ben Kennedy	08/03/2024	~15	

### SIG Prizes

Nil

### SIG Publications

Details	Link
11/05/2023 - Newsletter; GeOID Newsletter #11, featuring “DEVORA Outreach News” by Annalise Hall, “Event Report: VolcanoFest” by Sophia Tsang, “Delivering coursework with a virtual microscope” by Ben Kennedy, & “Tips for getting started with science communication” by Julian Thompson, plus a spotlight on Antarctica resources, an update from CRISISLab Challenge, congratulations NZ’s first UNESCO Global Geopark, and information about SIG events at the conference.	<a href="https://gsnz.org.nz/assets/Uploads/GeOID-Newsletter-10-January-2023-v2.pdf">https://gsnz.org.nz/assets/Uploads/GeOID-Newsletter-10-January-2023-v2.pdf</a>
28/06/2023 - Newsflash; MailChimp e-news update featuring updates on all the GeOID organised/aligned activities happening at the conference and announcing next SIG meeting.	<a href="http://eepurl.com/iuqKbU">http://eepurl.com/iuqKbU</a>
01/08/2023 - Newsflash; MailChimp e-news update featuring promotion of GSNZ conference events, a spotlight on recently published outreach/education resources, and promotion of training opportunities.	<a href="http://eepurl.com/iwRwrk">http://eepurl.com/iwRwrk</a>
23/08/2023 - Newsflash; MailChimp e-news update featuring promotion	<a href="http://eepurl.com/iygGmE">http://eepurl.com/iygGmE</a>

## Special Interest Groups - Geoscience Education, Outreach and International Development (GeOID)

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of an AGU online discussion “Equity & Inclusion”, “Kickstart Your Science Communication - Free Webinar”, invitation to get involved in EarthFest, and announcing next SIG meeting.

07/11/2023 – Newsflash; MailChimp e-news update featuring promotion of GeOID organised/aligned conference events. <http://eepurl.com/iDtSQM>

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### Additional SIG Comments

It as a busy year for the GeOID SIG (especially the convenor). Consequently, we did not hold as many meetings and GEOTalks, or publish as many newsletters as we hoped.

The highlight for the year was the GSNZ conference and the range of activities we were able to pull together and present. Chief among these was EarthFest, which I hope will be able to be organised again in future. We also held a networking lunch with members of the Science Communicators Association of New Zealand (SCANZ) for which we received \$150 funding from SCANZ and \$225 from GSNZ for catering.

Other initiatives that we are trying to progress but which have not come to fruition yet are:

- Developing an Aotearoa-themed version of the Geoscience Society of London’s “Geosciences for the Future” poster (original poster pdf available at: <https://www.geolsoc.org.uk/~media/shared/documents/education%20and%20careers/Resources/Posters/Geoscience%20for%20the%20Future%20poster.pdf?la=en>).
- Developing a geoscience careers pamphlet for school careers advisors and students featuring a range of earth science-related careers.
- Compiling an Outreach and Education Resource & Contacts List

Something I hope to progress in the coming year is getting more buy-in and participation from GeOID members.

### SIG Expenses

#### **A Crowd of Communicators: GeOID – SCANZ combined networking lunch expenses**

The catering cost for this event was \$375, of which the Science Communicators Association of NZ (SCANZ) agreed in advance to contribute \$150. Jenny paid for the total cost up front and claimed \$150 reimbursement from SCANZ and \$225 from the GSNZ (upon provision of receipt). Pre-approval was received from the GSNZ National Committee to do this.

### Historical Studies Group

**Convenor:** Simon Nathan

**Editor:** Rodney Grapes

**Interested members:** 121

A group dedicated to the study of the history of geoscience in the New Zealand region.

#### SIG Activities and Events

Nil

#### SIG Prizes

Nil

#### SIG Publications

Details	Link
GSNZ Journal of Historical Studies 80, March 2024	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE91213192">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE91213192</a>
GSNZ Journal of Historical Studies 79, Feb 2024	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE91213195">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE91213195</a>
GSNZ Journal of Historical Studies 78, Jan 2024	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE89985323">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE89985323</a>
GSNZ Journal of Historical Studies 77, Dec 2023	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE89668828">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE89668828</a>
GSNZ Journal of Historical Studies 76, Oct 2023	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE88955382">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE88955382</a>
GSNZ Journal of Historical Studies 75, Aug 2023	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE88528404">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE88528404</a>
GSNZ Journal of Historical Studies 74, June 2023	<a href="https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE87868624">https://ndhadeliver.natlib.govt.nz/delivery/DeliveryManagerServlet?dps_pid=IE87868624</a>

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#### Additional SIG Comments

The names of our regular publication was changed from the GSNZ Journal of the Historical Studies Group (issue 73) to the GSNZ Journal of Historical Studies (issue 74)

#### SIG Expenses

Nil



### LAVA NZ (Volcanology)

**Convenor:** Adrian Pittari

**Interested members:** 260

LAVA NZ is a special interest group for volcanologists and volcano enthusiasts. LAVA NZ held its inaugural meeting at the Geosciences 2014 conference in New Plymouth. The group is associated with LAVA, a specialist group of the Geological Society of Australia. The two groups are managed separately under the auspices of their parent societies, but currently share a common once-to twice-yearly newsletter (LAVA News). The aims of both LAVA NZ and LAVA are:

- To provide a forum for discussion between members interested in and/or working in ancient and modern volcanic environments in the Australasian region.
- To facilitate the exchange of ideas and information between workers in volcanology and related disciplines such as sedimentology, mineralisation and igneous geochemistry.
- To provide a stronger link between volcanological researchers and industry-based geologists working in volcanic terrains.
- To promote research into the volcanology of the Australasian region.
- To provide a forum for promotion of volcanology within geoscience to the wider community.

#### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Meeting	Annual meeting	30/11/2023	~30	

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#### SIG Prizes

Nil

#### SIG Publications

Details	Link
LAVA News vol. 40. June 23, 2023	
LAVA News vol. 41. December 11, 2023	

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#### Additional SIG Comments

A LAVA Grant of up to \$500 was advertised in December (in parallel to a similar offer made by the Australian sibling LAVA group), with a deadline of February 2. This was not awarded due to lack of submissions.

#### SIG Expenses

Nil

## Palaeontology

**Convenor:** Daniel Thomas

**Interested members:** 144

Our group exists to foster interest in biodiversity across time, to discuss and promote paleontological activities in Aotearoa, and to encourage collaborations that will help to grow an endemic skillset in paleontology.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
Seminar (online)	Monthly PALEOTalk. Presenter: Panel Discussion on fossil collection ethics	25/05/2023	21	
Seminar (online)	Monthly PALEOTalk. Presenter: Jamie Wood	29/06/2023	25	
Seminar (online)	Monthly PALEOTalk. Presenter: Mathew Vanner	27/07/2023	29	
Seminar (online)	Monthly PALEOTalk. Presenter: Martin Crundwell	31/08/2023	29	
Seminar (online)	Monthly PALEOTalk. Presenter: George Young	28/09/2023	28	
Seminar (online)	Monthly PALEOTalk. Presenter: Sophie Kelly	26/10/2023	28	
Meeting	Paleontology SIG meeting at GSNZ Annual meeting chaired by Bruce Hayward and James Crampton	15/11/2023	Details not recorded	
Seminar (online)	Monthly PALEOTalk. Presenter: Daniel Thomas	28/03/2024	31	

### SIG Prizes, Publications, Additional Comments, Expenses

Nil

### Sedimentology

**Convenor:** Mark Lawrence

**Interested members:** 205

The Sedimentology Special Interest Group (SSIG) is for GSNZ members interested in all aspects of sedimentology ranging from ancient deposits to modern sedimentological processes. The SSIG is open to both active researchers and those just interested in the field. The aim of the SSIG is to promote communication and support among sedimentologists and provide a forum for sedimentology, stratigraphy and sedimentary geology topics in New Zealand. Activities to achieve this aim include but are not restricted to:

- Organising sedimentology field trips and workshops
- Actively promoting and organising sedimentology-focused sessions at the GSNZ conference
- Holding group lunchtime meetings at the GSNZ conference
- Promoting connections with overseas sedimentology groups
- Providing up to date listings of important publications in sedimentology relating to New Zealand.

### SIG Activities and Events

Activity	Description	Date Held	Attendance	
			Members	Non-Members
International Association of Sedimentologists (IAS) International Sedimentological Congress (ISC) 2026, to be held in NZ	Conference planning catch-up meeting	18/07/2023	8	1
International Association of Sedimentologists (IAS) International Sedimentological Congress (ISC) 2026, to be held in NZ	Conference planning catch-up meeting	9/10/2023	7	1
GSNZ Conference Core Workshop in Association with GNS Science	Examine and discuss features from a number of selected cores held at the GNS run, MBIE owned core store, Featherston, Wairarapa	13/10/2023	15	0
SSIG Lunchtime meeting at GSNZ conference	Interest Group AGM and ISC Conference planning catch-up meeting	14/10/2023	7	1
International Association of Sedimentologists (IAS) International Sedimentological Congress (ISC) 2026, to be held in NZ	Conference planning catch-up meeting	Held monthly from 18th January 2024 – 31st March 2024.	8 - 12	1

### SIG Prizes

Nil

### SIG Publications

Nil

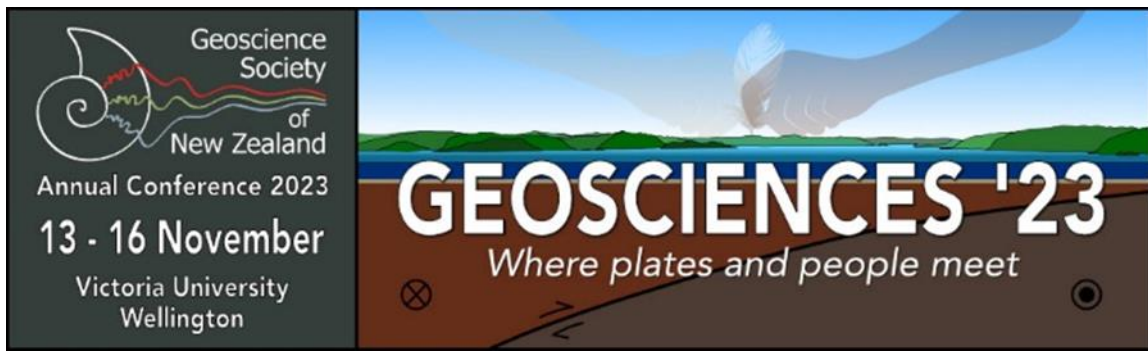
### Additional SIG Comments

For the moment, the bulk of SSIG activity has revolved around the IAS ISC 2026 organisation, and only involved a small number of individuals. The plan is to encourage more activities in the coming year.

### SIG Expenses

Nil

## Appendix A: GSNZ Annual Conference 2023 Convenor's Report



## GSNZ conference 2023 convenor's report: Geosciences'23

**Scott D. Nodder**

**Local Organising Committee Convener**

Scott Nodder, NIWA

**Local Organising Committee**

Linda Balfourt, Victoria University of Wellington

Carolyn Boulton, Victoria University of Wellington

Calum Chamberlain, Victoria University of Wellington

Grace Frontin-Rollet, NIWA

Mike Hannah, Victoria University of Wellington

Kat Holt, Massey University

Yaasameen Shalla, GNS Science

Jenny Stein, GNS Science

Susi Woelz, NIWA

## Sponsors

### Gold Sponsor



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### Supporting Exhibitor



## **GSNZ conference 2023 convenor's report: Geosciences'23**

**Scott D. Nodder (NIWA)**

### ***Summary***

The Geosciences Society of New Zealand's 2023 annual conference was held in Te Whanganui-a-Tara Wellington hosted by the School of Geography, Environment and Earth Sciences at Te Herenga Waka – Victoria University of Wellington (VUW) and the National Institute of Water & Atmospheric Research (NIWA) Ltd, with support from GNS Science. Initially organisational progress was slow because no-one had been identified as a lead organiser prior to Geosciences'22 held at Massey University the previous year. Nonetheless, an organising committee was quickly convened in February 2023 and with the assistance of Ali Howard from Conferences & Events Ltd (C&E), we began working through the process of confirming jobs, milestones and dates and meeting times to ensure that we could meet the logistical requirements of successfully holding the conference at Victoria University at the end of the 2023 year. However, issues with venue bookings meant that we were forced to move the conference dates by about 10 days from the traditional last week in November timeslot. We developed some new protocols, including a Code of Conduct and Social Responsibility and Cultural Guidance documents, and also actively supported the novel public outreach earth science festival "EarthFest", led by Jenny Stein (GNS Science). We had valuable advice from GSNZ's Māori Cultural Advisor Matua Kelvin Tapuke, in tandem with Jenny Stein, to ensure mana whenua involvement in developing the conference logo and protocols, including correspondence with the Deputy Vice Chancellor – Māori office at VUW. We were successful in attracting sufficient sponsorship via the usual organisations, although the plan of gaining financial support from the several international geoengineering firms and local government in Wellington was not that successful, with only one organisation (Beca) supporting the conference via sponsorship (Bronze). Given the likely high costs associated with accommodation in Wellington, we tried to reduce conference registration costs by not providing lunches, especially as there were numerous options on the main Kelburn university campus. As such, all registrations were kept at the same rate as the previous year. We wanted to maximise the impact of the conference for students so increased the poster sessions to 1.5 hours (perhaps could have been even a bit longer) and held a very successful Early Career social event in the central city, with over 100 registrants participating. We tried to ensure that our three plenary speakers reflected sufficient diversity across the geological community. Overall, the conference was very successful with 411 delegates, 289 abstracts submitted, three plenary speakers, and a net profit of \$7,931.36, partly due to being frugal and partly due to increased attendance.

### ***Wrap up report by Conferences and Events Ltd***

Please see the *wrap up report* from Conferences and Events Ltd, written by Ali Howard, for a full financial breakdown, a summary of C&E's services and responsibilities, sponsorship, programme, and accompanying events.

### ***2023 GSNZ conference local organising committee (LOC)***

Scott Nodder (NIWA) – Convenor, sponsorship, conference programme, assistant abstract volume editor, field-guide compiler, conference budget, social events, liaise with conference organisers, oversight of the Local Organisation Committee and overall conference organisation



Susi Woelz (NIWA) – sponsorship, conference student judging coordination  
Grace Frontin-Rollet (NIWA) – lead abstract volume compiler and editor  
Calum Chamberlain (VUW) – conference programme  
Mike Hannah (VUW) – liaison with VUW, organise student helpers for AV, EarthFest (public fieldtrip)  
Carolyn Boulton (VUW) – assisting with student helpers, assisting with judging student talks and posters  
Lisa Balfourt (VUW) – early career researcher social event  
Jenny Stein (GNS Science) – EarthFest (public event), conference theme and logo, conference programme, iwi liaison, conference ethics statements  
Yaasameen Shalla (GNS Science) – conference programme, early career researcher social event  
Kat Holt (GSNZ President, Massey University) – GSNZ National Committee liaison and advice

Matua Kelvin Tapuke (GSNZ's Māori Cultural Advisor)  
Cliff Atkins (VUW) – initial contact with VUW

Ali Howard (C&E)  
Luxor McGovern (C&E)

The Local Organising Committee (LOC) was drawn from interested people at NIWA, VUW and GNS Science. We formed small sub-committees around the following areas:

- (1) Sponsorship (Nodder, Woelz)
- (2) Scientific programme (Chamberlain, Stein, Shalla, Nodder)
- (3) Early Career Researcher Social Event (Shalla, Balfourt)
- (4) Abstract volume (Frontin-Rollet, Nodder)
- (5) VUW liaison and student assistance (Hannah, Boulton)
- (6) Student judging (Woelz, plus volunteer judges)
- (7) Fieldtrip guide compilation (Nodder)

In general, however, most of the LOC business was dealt with as a collective, with discussion and decisions made at the regular monthly meetings as a committee. This approach worked well as various jobs were allocated or issues addressed as they arose and every member of the committee contributed in some way to ensure the success of each conference operation or activity.

EarthFest was also included as part of our LOC business as this was a public outreach endeavour, initiated and led by Jenny Stein, that was associated with the conference. Most of the EarthFest organisation, including sponsorship, however, was conducted outside the LOC committee meetings, due the massive efforts of Jenny.

**Timeline:** We got off to a slow start, with no local people aware of the Wellington hosting responsibilities until the last day of the previous conference, at which point a small group (Nodder and Atkins) accepted the challenge and started initial evaluations about the feasibility of hosting the conference at VUW. Due to this lack of preparedness, the favoured venue at VUW Rutherford House was not available for the late November timeslot, so bookings on the main VUW campus were secured and later modified to ensure much better facilities and spaces were available for the conference. These revised bookings led to the conference having to be re-scheduled to a week or so before the dates that conference is normally held (i.e., in the last week of November). Nodder's appointment as the nominal LOC convenor was initially an ad hoc decision because no-one else was obviously available from the two hosting organisations (VUW and NIWA).

The first LOC meeting was not held until mid-February 2023, with a makeshift initial committee convening to start the conference organisation. Approaches to specific VUW staff were then initiated as representation

was lacking from the host organisation at which point a full LOC was then able to meet at the next meeting in March 2023.

C&E provided the LOC with a robust timeline for setting up and getting through the required business to achieve the conference outcomes. We largely kept to these timelines or modified them under advice from C&E.

**Choosing a date:** The GSNZ annual conference is usually the last week or so in November but due to the unavailability of suitable venue spaces at this time, we were forced in setting new, slightly earlier dates of 13-16<sup>th</sup> November, with three full-days of conferencing (14-16<sup>th</sup>) that were bookended by EarthFest (11-12<sup>th</sup>), five pre-conference workshops (13<sup>th</sup>) and four post-conference fieldtrips (17<sup>th</sup>). We were approached by the Science Communicators Association of New Zealand (SCANZ) to dovetail with their conference activities in the previous week, which we also tried to facilitate with the workshop and conference programme.

**Conference venue:** The 2023 GSNZ conference was held at the Te Herenga Waka – Victoria University of Wellington in the Maclaurin and Cotton lecture blocks, including three large lecture rooms (Maclaurin 102 and 103 and Cotton 122), a large foyer area for exhibitors and catering (Maclaurin and Te Toki a Rata foyers), and a split area in the foyer and an upstairs mezzanine for poster presentations. Various lunchtime meetings for GSNZ Special Interest Groups (SIGs) were hosted in other lecture rooms available at VUW. There was no cost for the venue hire due to applications and lobbying from the VUW staff.

**Catering:** C&E undertook the organisation of the catering, which was undertaken by Blue Carrot for morning and afternoon tea breaks. In order to reduce conference registration fees, and due the close proximity of several eating venues on the main VUW campus, a decision was made not to include lunches in the registration. We tried to make sure food for people with a variety of dietary restrictions was available as part of the main choices as well as providing separate plates on a different table. There seemed to be a lot of this 'special' food that was left uneaten, but this may have been due to the location of the table a little away from the main foyer area. Tea and coffee were available at most times, during talks and particularly in the mornings when delegates arrived, rather than just during official tea times. When alcohol was served (during the poster sessions), we made sure food was served at the same time. Careful attention to the alcohol provided by the caterers is recommended if there is a need for more expensive (craft beer) options.

**Conference organiser:** A decision was made early on with the GSNZ President and National Committee to ensure that we used C&E as our conference organisers. This was imperative due to the late start that we had as a LOC and their skill and expertise in conference organisation, led by Ali Howard, supported by Luxor McGovern, was much appreciated. C&E undertook most of the direct liaison with the venue managers and provided options for the social events that required site visits by the LOC convenor and other committee members as required. Due to past experience C&E had a good grasp on the timelines required from the outset, which provided a sound framework upon which the LOC could operate, with dates tweaked as required, but always undertaken under the advice of C&E. The support from Ali and Luxor was exemplary and critical to the success of the conference.

**Sponsorship:** Primary sponsorship for Geosciences'23 was derived from the usual stable of sponsors, who have provided ongoing and often long-term support for the GSNZ conferences over many years. In particular, GNS Science (Gold), NIWA (Silver), EQC (Silver), Royal Society of NZ (Bronze), the "Resilience to Nature's Challenges" National Science Challenge (Bronze) and Tourism NZ (Supporting) were once again forthcoming with sponsorship of this conference. New sponsorship was provided by Beca (Bronze) and GeoDiscoveryNZ (Bronze), which was much appreciated. The plan to target and gain financial support from the several large international geoenvironmental firms and local government in Wellington was not that successful, with only one organisation (Beca) supporting the conference via sponsorship. This mainly reflects

the cold-calling nature of the contacts that we had and in some cases there seemed to be a requirement with the large engineering firms to have initiated discussions up to 12 months in advance. Indirect sponsorship from VUW was provided with the complimentary hire costs for the venue. We also provided the House of Science with a free exhibitors' space due to their charity status. Other than the desks provided for the key sponsors, we had no other exhibitors.

**Accommodation:** C&E set up allocations at four accommodation options close to the venue: Cumberland House Halls of Residence, Trinity Hotel, Boulcott Suites and Mercure Abel Tasman, which were advertised to delegates via the conference website. C&E oversaw individual bookings, handling of money and release dates. The cost of a room at Cumberland House included some extra costs for C&E's time and expertise.

**Conference welcome:** There was initially a lot of effort made to integrate the conference welcome with mana whenua and the Māori unit at VUW, which involved letters from the GSNZ President and the conference convenor to the VUW Deputy Vice Chancellor – Māori (Prof Rawinia Higgins). The opening built on the fantastic mahi undertaken by Jenny Stein and the GSNZ Māori Cultural Advisor, Matua Kelvin Tapuke, who established contact and built the relationship with mana whenua including the special gift of the symbolism in our conference logo (i.e., the meeting of peoples, white feather of reconciliation and peace), which was also signed off by the Hon. Minister Grant Robertson. The mihi whakatau at the start of the conference was provided by Kelvin, with tikanga tips for delegates provided in the conference handbook.

Cultural Safety, Social Responsibility and Code of Conduct documents were developed by Jenny Stein and endorsed by the LOC, based on previous documents from the previously held IAVCEI conference. These were presented to delegates in the conference handbook.

**Conference Programme:** A call for Special Sessions was made in June, with session convenors responsible for accepting abstracts in their sessions, arranging the order of speakers in their sessions, deciding who was oral or poster (primarily based on requests), and running their sessions during the conference. The session convenors were advised of the oral slots available in their session after the Programme Sub-committee had developed a draft programme outline to fit the time available around the other conference activities (e.g., opening plenary sessions, catering times, poster sessions, social events).

Efforts were made by the Programme Sub-Committee to minimise overlap between the interests in different sessions and to try and dovetail sessions where appropriate. The only complaint we received was the fact the Geochemistry Special Session was placed in the last session slot of the conference and the convenor advised us that this had also happened at the preceding conferences. We advised that this was completely serendipitous but undertook to advise the next LOC that they should endeavour to ensure that this doesn't happen at next year's conference.

**Plenary speakers** were chosen by the LOC, with view to ensuring diversity from within the Wellington geosciences community. To this end, we were lucky to be able to approach three amazing speakers, who accepted the wero and gave three inciteful and thought-provoking plenaries on each of the three days of the main conference programme. These speakers were Dr Lauren Vargo (VUW) on glaciers and climate change responses, Professor Jonathan Proctor (Massey University) on volcanic geohazards and Mātauranga Maori and Dr Philip Barnes (NIWA) on the new insights into the Hikurangi subduction system.

A **Public lecture** was also organised and was presented by VUW Adjunct Professor Mike Hannah, in line with his recent e-book publication on "The Earth System". Several members of the public were noted in the audience but no official counts were available, with many in the audience appearing to be conference delegates who then caught the departing bus to the evening's social function after Mike's lecture (17:00-18:00 h).

There were two **Poster sessions** at the end of the first and second full-days of talks at the conference (16:00-17:30 h and 15:30-17:00 h). In order to maximise exposure of the posters, we allowed delegates to put their posters up at the start of each day and we also extended the poster session time to 1.5 hours. There was considerable discussion within the LOC that we are still not recognising the value of the Poster sessions sufficiently given the effort to create the posters themselves and the value many of the delegates who present posters get from the interactions, especially as many are students, often presenting at the conference for the first time. Drink tickets were provided for the poster sessions (two per delegate); the convenor takes sole responsibility for not checking carefully enough as to what beer would be provided by the caterers, such that there was a decided dearth of craft beer at the poster sessions.

Final deadlines for special sessions and abstracts were extended by a week to maximise the opportunities for delegates to submit ideas and talk/poster presentations.

The **abstracts** were available prior to the conference as a compiled PDF since a decision was made not to have a conference app (due to costs). The abstract volume compilation was facilitated initially by the data provided by C&E from the original abstract submissions but still required considerable effort from the Abstract Volume Sub-Committee to manually edit each abstract to standardise the formatting (despite an example provided to delegates as part of the abstract submission process). The large volume of submitted abstracts meant that this was quite an onerous task, taking about two full-working days for two people to rectify. The Abstract Volume was published online by GSNZ as Miscellaneous Publication 164A (Frontin-Rollet and Nodder as editors).

No printed mini-programmes nor conference bags or free materials were included in the registration, partly to keep costs down. The A5 **Conference handbook** provided all the information on the conference programme, including lunch breaks and social functions; the handbooks were supplied to all delegates upon registration.

**Judging student orals/posters:** The official judging of student presentations was organised by Susi Woelz. She approached various GSNZ conference delegates to assist with the judging prior to and during the conference. A standardised judging form was used to help make decisions. There were some difficulties in attracting sufficient numbers of judges to cover all the talks and the compilation of the judging decisions from the paper-copy judging forms became an onerous day-to-day task for Susi as judging convenor. This became a difficult job and meant that Susi was probably under the most stress of the LOC members during the conference period. While the Programme Sub-Committee tried to ensure that there were no student talks in the last sessions of the last day, this was not possible in a couple of sessions, which also added to the stress and difficulties of the student judging process. We would recommend that future committees ensure that no student talks are scheduled in this period. Standardised oral and poster presentation certificates as provided by the GSNZ National Committee were presented for the Best and Runner-up oral and poster student presentations at the closing ceremony, with cash provided from the conference funds (\$500 for Best Oral and Poster and \$250 each for 2<sup>nd</sup> and 3<sup>rd</sup> Oral and Poster) and a coffee mug from one of the principal sponsors (NIWA) also given to the successful recipients.

Based on her experience, the head of the Student Judging Sub-Committee (Susi Woelz) recommends that a more electronic method of collating and analysing judge's score sheets be implemented in future conferences; Susi can be contacted for further discussion.

**Student volunteers:** Mike Hannah coordinated the student volunteers to run AV during oral sessions and to assist in the setting up and breaking down of stands and the floor at the EarthFest event. Student volunteers got free attendance to all days at the conference in return for volunteering. The facilities at VUW worked extremely well, testament also to the training and skills of the student volunteers.

**Lunch time events:** The time for lunches was set to 1.5 hours (12:30-14:00) to allow an initial ½ an hour for delegate's to have their lunch from the cafés around the venue and ¾ of an hour for various lunch time events, such as SIG meetings (Paleontology, Sedimentology, Energy, Geochemistry), specialist updates (GeoNet, GeOID/SCANZ, NEMA, Publications (NZJGG and Sedimentary Geology)) and a meeting to discuss the future of earth sciences in NZ universities, with imminent cuts expected at Massey, VUW and Otago.

**Social events:** Four social events were organised as integral parts of the conference.

The first event was the **Icebreaker** on Monday 13<sup>th</sup> November, following a day of workshops (see below) from 17:00-1900 h to allow conference delegates the opportunity to re-connect with each other and for exhibitors and sponsors to have initial exposure to the conference participants. Two free drinks and light food were provided during this event, which was included in the registration fee to approximately 300 attendees.

The Icebreaker was followed by an **Early Career Researcher Mixer** (from 19:30 h) that was held at a venue in the central city (The Ballroom), with pool tables and bar drinks available. About 100 people turned up for this event. Complimentary pizza was provided by the LOC for this highly successful event.

On Tuesday 14<sup>th</sup> November evening, following the Public lecture (see above), buses were provided to transport delegates about 40-45 minutes out to a venue in Upper Hutt, **Brewtown** with 121 tickets sold. The cost was \$100 full price and the \$50 student rate was subsidised by the full ticket price. The venue provided an eclectic mixture of sitting arrangements and games for delegates to enjoy. The conference registration covered two free drinks (craft beer, wine and cider) and a full complimentary meal (BBQ – meat and vegetarian options and dessert). While the distance out to the venue was a little long, it also afforded a chance for delegates to converse and catch-up, with the added to spice of some rival challenges with the range of games on offer at Brewtown (pool, quoits, table tennis, cornhole, giant Jenga, etc).

The last night of the conference on Wednesday 15<sup>th</sup> November was the **Gala Dinner** held at Pipitea Marae in Thorndon. The cost was set at \$140 full price and a subsidised \$75 student rate to try and encourage more students and early career researchers to attend, with two free bottles of wine provided on each table (seating 6-8 people) and a bar for other drink purchases. A local theme was selected to encourage the conference delegates to dress-up. This year's theme was "Wellington Paranormal". Kat Holt offered to devise and build all the table centrepieces, which were aligned with this theme, and prizes for the best dressed group and individual and runners-up were given out on the night. The GSNZ prize ceremony was also held, and certificates presented to the winners of these awards by the GSNZ President (Kat Holt) and Vice-President (Sam McColl). A live band, comprising local scientists, provided the entertainment for the evening, but on reflection were possibly a bit too loud and rough-and-ready for many of the delegates to enjoy. That said, the cost implications of hiring a more polished band, PA and sound engineer would have pushed the budget.

**Workshops:** Six workshops were programmed on Monday 13<sup>th</sup> November, mostly at the VUW conference venue, although two were held off-site at the Featherston Core Store and at GNS Science and one workshop was cancelled due to convenor unavailability. These workshops were reasonably well attended (20 to 50 people). Workshop themes and convenors were: (1) Featherston Core Store (Mark Lawrence, Miles, Dunkin, Paul Viskovic); GeoNet (Ery Hughes, Libby Abbott, Rachel Pritchard-Thorsen), Earthquake catalogues (Kenny Graham, Jonathan Hansen, Calum Chamberlain); geoscience communications, education and outreach (Stein), volcanic risk and communication (Julia Becker) and public preparedness for national hazard drills (cancelled; Aisling O'Kane). Logistic support was provided by C&E as part of their conference contract with the GSNZ.

**EarthFest:** This public event was devised, organised and run very successfully by Jenny Stein. The LOC provided advice, logistical support and some initial funding but the event essentially run independently,

including gaining its own sponsorship. Over 1000 people attended the open-day event on Saturday 11<sup>th</sup> November at the Walter Nash Centre in Taitā, Lower Hutt, from 9:00 to 15:00 h. A series of public field trips to key geological sites around the Wellington City area was organised by Jenny and Mike Hannah on Sunday 12<sup>th</sup> November, and although not as well attended (15-20 people), was still a worthwhile exercise to provide geoscience insights to the public.

**Field trips:** A call for Field trips was made in June, but was decidedly unforthcoming, such that individuals at VUW and GNS were approached to encourage them to develop a conference field trip. This resulted in four post-conference field trips being offered to delegates, all of which were for a single day (Friday 17<sup>th</sup> November). One two-day sedimentology field trip to the Wairarapa (FT1) was condensed into a single day trip due to a lack of interest. The weather on the day was also very dicey, but all but one field trip was run (FT4 “tsunami & geohazards” was cancelled). To the best of our knowledge, the first GSNZ field trip involving a boat trip on Te Whanganui a Tara Wellington Harbour was successful (FT3). The other field trip involved another trip over to the Wairarapa to look at neotectonics (FT2). The field trips were not that well subscribed with between 5-20 people but were ably run by the field trip leaders (Ben Hines, Cliff Atkins, James Crampton (FT1), Nicola Litchfield, Genevieve Coffey (FT2), Scott Nodder, Susi Woelz, Grace Fronton-Rollet (FT3), Jean Roger, Russ van Dissen and K. O’Brien (FT4)).

Logistics, including van hire, catering, field trip guide preparation, health & safety, were organised by the field trip leaders, using templates provided by GSNZ where appropriate (e.g., guidebook outline, H&S forms). Individual field trip guides were compiled into a single volume by Scott Nodder and published by GSNZ as Miscellaneous Publication 164B. It was disappointing that one of the main strands of the conference was not so well supported either at the outset by people putting their hands up to plan, organise or lead the field trips nor by delegates wanting to pay and be part of the field trips – perhaps a sign of the times with everyone being so busy?

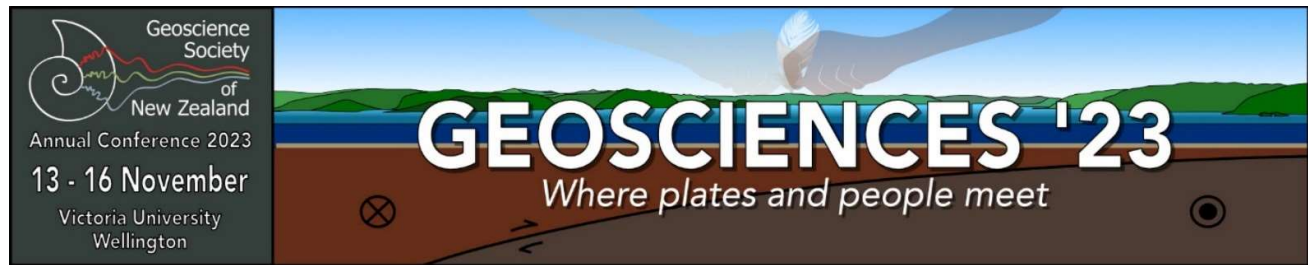
### ***Concluding statement***

Overall, the conference ran extremely well and was well attended by GSNZ members. The smooth running was due in large part to the organisational skills of the C&E staff leading up to and on the days of the conference; Ali Howard and Luxor McGovern are thanked in particular. The LOC operated as an effective team, with individuals putting their hands-up when required so that a lot of the tasks were shared amongst the LOC. It was a great group of people to be involved with over the nine months or so that we operated as the LOC – thanks to all their considerable efforts.

Scott Nodder  
Geoscience’23 GSNZ conference convenor

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## Appendix B: GSNZ Annual Conference 2023 Event Wrap Report



## WRAP UP REPORT

### Overview

**Dates:** 13-16 November 2023

**Location:** Kelburn Campus, Victoria university, Wellington

**Website:** <https://confer.eventsair.com/gsnz2023/>

**Registrations:** 399

**Abstracts Submitted:** 289

### **Local Organising Committee:**

Linda Balfourt, Victoria University of Wellington

Carolyn Boulton, Victoria University of Wellington

Calum Chamberlain, Victoria University of Wellington

Grace Frontin-Rollet, NIWA

Mike Hannah, Victoria University of Wellington

Kat Holt, Massey University, President, Geoscience Society of New Zealand

Scott Nodder, NIWA (Chair)

Yaasameen Shalla, GNS

Jenny Stein, GNS

Susi Woelz, NIWA

### **Conferences & Events Ltd**

Ali Howard, Conference Manager

Luxor McGowan, Conference Organiser

### **Key Dates 2022**

15 June - Call for Sessions, Workshops, Field Trips and SIG meetings proposals open

30 June - Call for proposals deadline

19 July - Abstract submission opens

~~18 August~~ Deadline for abstract submission. Extended to 1 September

25 August - Registration opens

~~15 September~~ Authors notified. Extended to Early October

13 October - Early Bird Registrations close

**Report prepared by:** Ali Howard

### **Conferences & Events Ltd**

Po Box 20478

Level 3, 195 Willis Street

Wellington, New Zealand

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Web: [www.confer.co.nz](http://www.confer.co.nz)



The Benchmark Professional  
Conference Organisers

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## **Programme**

The programme was a similar format to previous GSNZ conferences with pre-conference workshops, public lectures, plenary lectures, scientific presentations, keynote talks, lunchtime SIG meetings, AGM, poster sessions, Icebreaker function, Early Career mixer, a casual dinner, an awards dinner and post-conference field trips.

The detailed programme, poster information, abstract volume and handbook are available at this link <https://confer.eventsair.com/gsnz2023/programme>

The committee created the main conference themes:

- I. Earth Systems: Learning from the past to understand the present (and predict the future)
- II. Geosciences for a Sustainable Future
- III. Aotearoa New Zealand's Active Plate Boundary: Landscapes, People and Processes
- IV. Diversity and Indigenous Voices in the Geosciences
- V. Misc/Other

A Call for Proposals was sent out, and attendees submitted their ideas for sessions, field trips, workshops and SIG meetings. The committee shoulder-tapped colleagues to submit. All proposals were accepted.

The Call for Abstracts asked submitters to select a session that most closely aligned with the content of their abstract:

- On the precipice: the future of Geoscience education in Aotearoa New Zealand
- Towards culturally inclusive and responsive geoscience
- Geoscience for future energy: Navigating the path to a low-emissions future
- To honour a Time Lord: geological time, Earth history and paleontology in memory of Alan Beu
- The active volcanoes of Aotearoa – past, present, and future
- Advances in Active Faulting and Earthquake Hazards
- Early Earthquake Warning and Rapid Response Science
- Community Resilience in the face of tsunamis: Insights from social science
- High-energy coastal hazard events in Aotearoa/New Zealand: records, processes and preparedness
- Geoscience in the Built Environment
- Our changing landscapes; surface process dynamics, evolution, and impacts
- Understanding climate and environmental change
- Underwater Geosciences
- Geochemical tools and applications to reconstruct environmental and climate change, human impact and Earth history in New Zealand, Australia and Antarctica
- Geoscience communication for influence, education and impact

## **Plenary Speakers**

### **Dr Philip Barnes**

New insights into Hikurangi subduction inputs, accretionary wedge, and plate interface host rocks spanning along-strike changes in fault slip behaviour, New Zealand



#### **Biography**

Philip holds a PhD in Geology from the University of Canterbury and is a Principal Scientist in Marine Geology at the National Institute of Water & Atmospheric Research (NIWA). With >35 years of experience in the field of active continental margins, his work has focussed mainly on submarine neotectonics, sedimentary systems, and geohazards.

Phil is a former Technical Advisor (1996-2006) and New Zealand Delegate (2006-2008) to the United Nations Commission on the limits of the Legal Continental Shelf under UNCLOS Article 76. He received NIWA's Research Excellence Award in 2014, was elected a Fellow of the Royal Society of New Zealand Te Apārangi (FRSNZ) in 2019, and is the 2023 recipient of the Francis P. Shepard Medal for excellence in marine geology awarded by SEPM The Society for Sedimentary Geology.

### **Dr Lauren Vargo**

Melting glaciers and climate change: What can we do?

#### **Biography**

For as long as I can remember, I've loved being outdoors and exploring the natural world. But I didn't feel like I was good at science, I didn't really care about science, and I didn't know that science could be applied to the Earth and outdoors until I took a Geology class in university. Since then, I've loved learning about and studying the Earth, especially the icy parts. I now use field observations, remote sensing data, climate data, GCM (global computer model simulation) output, and numerical modelling to investigate questions in glaciology and climate science. My current research interests include monitoring how glaciers in Aotearoa New Zealand are changing, and investigating the impacts of climate change on snow and glaciers in New Zealand and globally.



### **Professor Jonathon Procter**

He haerenga mōrearea - A hazardous journey; Exploring Mātauranga Māori and Volcanic Hazards.

#### **Biography**

Jonathan Procter is a Professor of Natural Hazards at Massey University. He has contributed to developing research that focuses on volcanic hazard simulation and working with communities to increase resilience to natural and environmental hazards. Jonathan manages the Volcanic Risk Solutions (VRS) research group and has contributed nationally to developing new research directions in volcanology. He currently leads the NZ National Science Challenge; Resilience to Nature's Challenges, volcano research program and is active in finding new solutions to mitigate the hazards posed by our volcanoes. Being one of only a handful of Māori professorial scientists, Jonathan feels he has a duty to contribute to Māori development. His greatest contribution in this respect has been the development of a new area of research on mātauranga Māori, volcanic hazards and building resilience in Māori communities.



## Registration

The full registration fee included entrance to all conference sessions, lunches, tea/coffee breaks, Ice Breaker Function and poster sessions. Pre-conference workshops, post-conference Field Trips, Brewtown Bash and Conference Dinner were an additional charge to the registration fee.

<b>Registration Type</b>	<b>Early Bird Rate (until 13 October)</b>	<b>Standard Rate (from 14 October)</b>
Member Full Registration	\$460	\$520
Non-Member Full Registration	\$620	\$680
Student Member Full Registration	\$175	\$235
Student Non-Member Full Registration	\$220	\$280
Retired Member Full Registration	\$325	\$375
ECR Member Full Registration	\$325	\$375
Day Registration	\$300	\$300

GSNZ Member Early bird Full Registration	113
GSNZ Member Standard Full Registration	9
GSNZ Member Retired Early Bird Full Registration	13
GSNZ Member Student Early Bird Full Registration	91
GSNZ Member Student Standard Full Registration	4
Non-Member Early bird Full Registration	45
Non-Member Standard Full Registration	8
Non-Member Student Early Bird Full Registration	17
Non-Member Student Standard Full Registration	6
Retired Member	1
Early Career Researcher Early Bird	20
Early Career Researcher Full Registration	2
Student Volunteer	9
Day Registration	37
Complimentary Sponsor /Exhibitor/committee/GSNZ staff/Speaker	24
<b>Total Attendees</b>	<b>399</b>

## Social Functions

Ice Breaker Function included in registration fee	289	<b>totals</b>
Ice Breaker Function – Additional Tickets purchased	3	<b>292</b>
ECR Function	99	<b>99</b>
Brewtown Bash Full rate ticket	63	
Brewtown Bash Student ticket	47	
Brewtown complimentary tickets	11	<b>121</b>
Gala Dinner full ticket	129	
Gala dinner student ticket	61	
Gala dinner complimentary tickets -helpers, winners	3	<b>193</b>

### Icebreaker Function

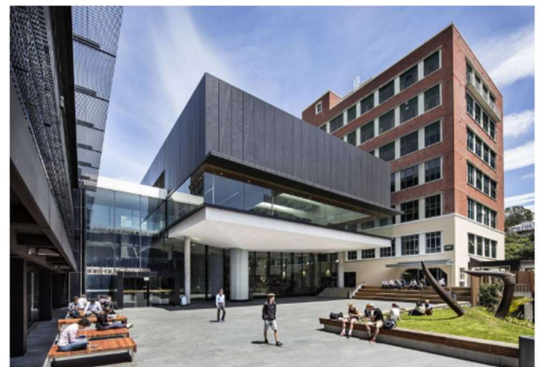
**Date:** Monday 13th November 2023

**Location:** Kelburn Campus, Victoria University of Wellington

**Time:** 5.00pm - 7.00pm

The Icebreaker Reception is included in your registration fee, but please register your attendance for catering purposes. This will be your first opportunity to meet and network with other delegates and we encourage you to come along.

**Additional tickets for accompanying person:** \$40 per person.



### ECR Function

**This function is now full with a waitlist**

**Date:** Monday 13th November 2023

**Location:** The Ballroom (68 Courtenay Place, Wellington)

**Time:** 7.30pm

**Ticket Price:** \$10 per person, includes entry and snacks

This year's GSNZ Early Career Researcher Mixer will be held at The Ballroom, upstairs on Courtenay Place, after the conference Icebreaker. The event aims to be an opportunity for people to network and socialise, from undergraduate to post-doc, over friendly pool, darts, a drink at the bar or even pizza. The entry fee includes use of pool tables, a drink and pizza on entry.

Please note that numbers are limited and on a first come, first served basis.



## Brewtown Bash

**Date:** Tuesday 14th November 2023

**Location:** Brewtown, Upper Hutt

**Time:** 7.00pm. Coaches leave Wellington at 6.30pm and return to Wellington from 9:30pm (last bus is 10:30pm).

**Ticket Price:** Full Price \$100, Student Price \$50

Join us for a fun and laid-back evening under Brewtown's large, covered greenspace. Unwind and lounge in the comfort of retro-inspired furniture. Engage in friendly competition with classic lawn games such as Giant Jenga and Cornhole.

Taste some of the best craft beers direct from the breweries and enjoy a yummy Boneface 'low and slow' BBQ dinner.

For the adventurous, plan to arrive early and book one of the activities at the Daytona Park next door: ice skating, bowling, go-karting, paintball.



## Conference Gala Dinner

**This function is now full with a waitlist**

**Date:** Wednesday 15th November 2023

**Location:** Pipitea Marae, Thorndon Quay, Wellington

**Time:** 7.00pm

**Ticket event:** Full Price \$140, Student Price \$75

**Gala Dinner Theme:** Wellington Paranormal

Nau Mai, Haere Mai. Pipitea Marae is a traditional urban Marae in the heart of Wellington and welcomes you for the 2023 GSNZ Conference Gala Dinner. The 'Wellington Paranormal' theme will combine elements of the supernatural, humor, and elegance to create a memorable evening. Dress up is encouraged!

Don't miss out on this opportunity to unwind, network, and enjoy some dinner and drinks in the company of your fellow colleagues.

Join Us for a Spook-tacular Evening!



## **Workshops**

Pre-conference workshops were offered for an additional fee.

Building a Framework for Earthquake Catalogues in Aotearoa New Zealand	40
Featherston Core Store – Core Workshop	17
GeoNet and geohazard monitoring in Aotearoa: what we do, how we do it, and a peek behind the scenes	47
Volcano Risk Communication in Aotearoa New Zealand	25
Wanna see something cool?" Geoscience communication for engaging education and outreach	23

### **Building a Framework for Earthquake Catalogues in Aotearoa New Zealand**

**Leaders:** Kenny Graham, Jonathan Hanson (GNS Science) and Calum Chamberlain (VUW).

**Date:** Monday 13th November

**Time:** 9am - 12pm

**Cost:** Free for conference attendees (*lunch is provided*)

**Location:** Alan McDiarmid 104 room, [Victoria University Wellington, Kelburn Campus](#)

Join us at the "Framework Development for Earthquake Catalogues in New Zealand" workshop!

This event brings together earthquake experts, researchers, and data scientists to collaborate on developing a comprehensive framework for earthquake catalogues specific to New Zealand.

By establishing a unified framework, we can enhance the FAIRness earthquake catalogues for research. Together, we'll work towards developing a comprehensive framework and recommendations for earthquake catalogues in New Zealand.

We will also explore the evolution of earthquake catalogues from their current state to future advancements, particularly through AI/ML innovations.

Your participation and perspective will play a crucial role in shaping the future of earthquake research.

**Additional Information:**

- Lunch is provided.

Minimum numbers required to run the workshop is 10, maximum number is 40.

For any queries relating to this workshop please contact: **Kenny Graham, Jonathan Hanson or Calum Chamberlain**

### **Featherston Core Store – Core Workshop**

**Leaders:** Mark Lawrence (GNS Science), Miles Dunkin (MBIE), Paul Viskovic (GNS Science).

**Date:** Monday 13th November

**Time:** 8am - 5:30pm (*details below*)

**Cost:** \$40 for conference attendees, free for students

**Location:** [Meet at Wellington Railway Station](#)



The Featherston Core store is an amazing but poorly recognised geological resource. This workshop aims to introduce participants to what the store has to offer, and provides the opportunity to view and discuss some core from a range of depositional environments.

**Additional Information:**

Please bring the following items:

- Lunch is NOT included. Please BYO your own packed lunch or you are able to buy sandwiches from TRAX café, Platform 1, at Wellington Station.
- Essential item: Sturdy footwear suitable for an industrial facility e.g. steel toecaps if available, otherwise just fully covered shoes (NO open-toed sandals, jandals etc).  
Something to take notes on at the time (laptop, good old fashioned pen/pencils and a notebook, whatever). Workshop materials will be made available to download prior to and after the workshop.  
High viz (orange) vest if they have one, otherwise we will supply some.

Timings below:

- Depart Wellington Station 08:00 hours to be at core store at 09:00 hours.  
Finish: Depart core store at 16:30 hours to return to Wellington Station by 17:30 hours.  
Minimum numbers required to run the workshop is 10, maximum number is 25.

For any queries relating to this workshop please contact: **Mark Lawrence, Miles Dunkin, Paul Viskovic**

**GeoNet and Geohazard Monitoring in Aotearoa: What We Do, How We Do It, and a Peek Behind the Scenes**

**Leaders:** Ery Hughes, Libby Abbott, Rachael Pritchard-Thorsen, Te Pū Ao, (GNS Science)

**Date:** Monday 13th November

**Time:** 9am - 4pm

**Cost:** Free for conference attendees (*tea/coffee and lunch is included. Transport to/from Avalon is not included*)

**Location:** [Avalon Campus of Te Pū Ao GNS Science](#) (1 Fairway Drive, Avalon 5010) in Lower Hutt, which is a ~25 min walk from Naenae train station.

Want to learn how the GeoNet programme at Te Pū Ao GNS Science monitors geohazards in Aotearoa? Interested in what type of jobs support monitoring in Aotearoa and how to access all the awesome data GeoNet collects? Come along to GNS Science and see the National Geohazards Monitoring Centre / Te Puna Mōrearea i te Rū where we monitor Aotearoa 24/7 for geohazards!

**Additional Information:**

- The workshop will be hybrid (although some aspects will not be available for virtual attendees: lunch and NGMC tour)  
Minimum numbers required to run the workshop is 20 in-person, maximum numbers for in-person is

60.

For any queries relating to this workshop please contact: **Ery Hughes, Libby Abbott, Rachael Pritchard-Thorsen**

#### Volcano Risk Communication in Aotearoa New Zealand

**Leader:** Julia Becker, Joint Centre for Disaster Research Massey University

**Date:** Monday 13th November

**Time:** 1 - 4pm

**Cost:** Free for conference attendees

**Location:** Alan McDiarmid 104 room, [Victoria University Wellington, Kelburn Campus](#)

This workshop will commence with a series of brief presentations that highlight recent research or examples of practice for volcano risk communication. Consideration will be given to how this work has, or can, inform readiness, reduction, response and recovery. Second, we will discuss gaps in our understanding of volcano risk communication and consider the needs for future research and practice. We welcome a range of participants to our workshop including researchers undertaking risk communication research, researchers who have experience of engaging and communicating, practitioners and decision-makers, and community members, including Iwi, hapū, and Māori stakeholders.

**Additional Information:**

- Lunch is NOT included. Please BYO your own lunch or you are able to buy lunch from the cafes at Victoria University.
- Minimum numbers required to run the workshop is 10, maximum number is 40.

For any queries relating to this workshop please contact: **Julia Becker**

#### “Wanna See Something Cool?” Geoscience Communication for Engaging Education and Outreach

**Leader:** Jenny Stein, Geoscience Society of New Zealand

**Date:** Monday 13th November

**Time:** 9:30am - 4pm

**Cost:** Free for conference attendees

**Location:** Cotton 216 room [Victoria University Wellington, Kelburn Campus](#)

Communicating geoscience well has numerous benefits for everyone involved. In this workshop we will explore, critique and develop practical skills for successfully communicating geoscience topics and concepts in outreach and education settings.

After ‘Developing your key messages’ with the Science Media Centre, we will spend the rest of the day exploring some of the following topics (depending on the group’s interests):

Knowing your audience; key considerations for successful geoscience communication

- Communicating complexity
- Compelling telling; how to craft engaging stories and narratives
- Presentations skills; PowerPoints and public speaking
- Attracting the eye; a crash-course in graphic design
- Hands On; interactive geoscience activities and games
- Mighty multimedia; tips for making your own simple videos
- Contemporary communication channels; spotlight on social media
- Other? (possible upon timely request)

Workshop participants are encouraged to prepare a 5–10-minute presentation about an education or outreach activity they have been involved in, to act as starting points for the day’s discussions.

**Additional Information:**



- Lunch is NOT included. Please BYO your own lunch or you are able to buy lunch from the cafes at Victoria University.
  - Please email your workshop topic preferences to [geoid@gsnz.org.nz](mailto:geoid@gsnz.org.nz).
- Minimum numbers required to run the workshop is 10  
For any queries relating to this workshop please contact: **Jenny Stein**

### **Workshop Cancelled**

~~Understanding Public Preparedness to Facilitate Realistic Natural Hazard Drills in Aotearoa New Zealand~~

**Leaders:** Aisling O’Kane (GNS Science and University of Canterbury) with stakeholder representatives from EQC, WREMO, NEMA and NIWA.

**Date:** Monday 13th November

**Time:** 10am - 12:30pm

**Cost:** Free for conference attendees (*light refreshments provided*)

**Location:** [Victoria University Wellington, Kelburn Campus](#)

This workshop is designed to bring together hazard scientists, science communicators, policymakers and community stakeholders to work together to discuss, plan, and design public preparedness resources and hazard response scenarios which could be subsequently tested in schools, homes, and workplaces. The workshop will offer a forum to brainstorm new, innovative materials with a multihazard focus to raise the awareness and preparedness amongst people in Aotearoa New Zealand and empower the public to feel adequately trained and prepared to respond confidently to naturally hazardous events.

### **Additional Information:**

- Lunch is NOT included, however light refreshments will be provided.
- If you have been involved in preparing any natural hazard preparedness resources, please bring these with you.

Minimum numbers required to run the workshop is 20, maximum number is 60.

For any queries relating to this workshop please contact: **Aisling O’Kane**

### Field Trips

Four field trips were offered for an additional fee. The two-day trip **Sedimentation on an Evolving Margin** was changed to a one-day due to low numbers and the **Tsunamis and Related Geology around Wellington Harbour** was cancelled due to the bad weather forecast. All attendees were refunded their field trip fee and offered a space on an alternative trip as available.

Te Whanganui a Tara Wellington Harbour seafloor geology	22
New Findings on Active Tectonics in the Central and Southern Wairarapa	18
Sedimentation on an Evolving Margin	5
Tsunamis and related geology around Wellington Harbour- cancelled due to bad weather forecast	

### Te Whanganui a Tara Wellington Harbour Seafloor Geology

**Leaders:** Scott Nodder & Susi Woelz, NIWA

**Date:** 1 day trip, 17th November

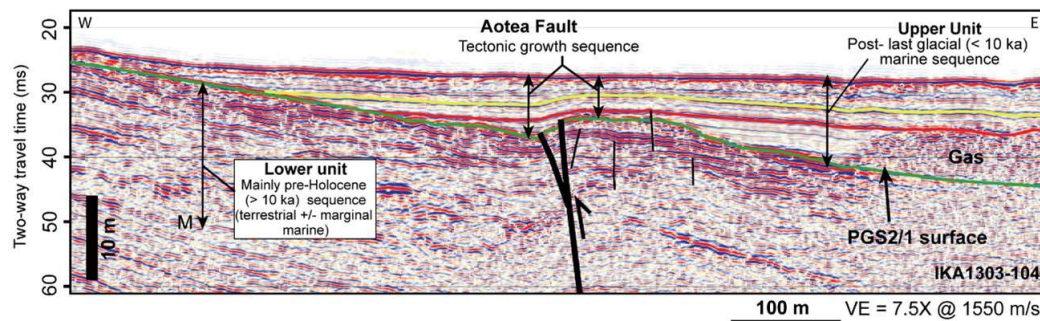
**Cost:** \$10 (covers snacks and drinks on board the vessel - lunch NOT included)

**Meeting Location:** Evans Bay Marina Wharf ([517 Evans Bay Parade, Hataitai, Wellington 6021](#))

**Timings:** Various time planned for the boat trips; 09:00-10:00, 11:00-12:00, 13:00-14:00 and 15:00 - 16:00 Followed by an optional ~ 1 hour tour at the NIWA Greta Point site.

The fieldtrip will involve several ~1-hour trips out on NIWA's research vessel RV Ikatere to look at submarine geological features in Te Whanganui a Tara Wellington Harbour. The vessel will operate NIWA's multibeam and sub-bottom profiling systems to provide information on the bathymetric and subsurface geology in the harbour, including images of active faults (Wellington and Aotea faults), seafloor freshwater seepage off Petone/Seaview and active current scour in the harbour entrance. The fieldtrip will showcase new shallow water geophysical techniques for characterising marine geological processes.

As an option, participants can visit the NIWA Greta Point site for tours of the High-Performance Computing Facility and the NIWA Invertebrate Collection.



Example of a shallow seismic reflection profile (top) and interpretation (bottom). Image taken from Barnes et al. (2018) *New Zealand Journal of Geology & Geophysics* (DOI: 10.1080/00288306.2018.1520265).

Additional Information:

- Experience of small boats (10-12 m-length) and being on the water would be beneficial. Walk from Evans Bay marina wharf to the NIWA site is an easy 20 minute walk for 1.5 km northwards along Evans Bay Parade.
- Bring Water bottle, rain jacket, warm clothing, closed shoes, sunhat and glasses, personal sun screen. NIWA will provide safety equipment (lifejackets, high visibility vests).

- Minimum numbers required to run this Field Trip is 12 (3 trips with 4 people each trip), maximum number of participants is 24 (4 trips for 6 people each trip over the day). If you have any questions about this Field Trip, please contact [Scott Nodder](#) or [Susi Woelz](#)
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### **New Findings on Active Tectonics in the Central and Southern Wairarapa**

**Leaders:** Nicola Litchfield, Genevieve Coffey (GNS Science), Julian Thomson (Out There Learning).

**Level of Fitness Required:** Gentle, flat, walking for short distances, but time permitting, you may want to climb the 250 steps to the Cape Palliser Lighthouse!

**Date:** 1 day trip, 17th November

**Cost:** \$70 (covers transport only - lunch NOT included)

**Pick up:** From Wellington Railway Station at 8:30am

**Drop off:** At Wellington Railway Station at 5pm



The Wairarapa is one of the most complex active tectonics areas of Aotearoa and recent work has identified several previously-unrecognised active faults and re-examined and dated tectonically-uplifted marine terraces. After travelling over the impressive Remutaka Range we'll first visit some of the newly-identified active faults near Carterton and discuss their activity and relationship to other nearby faults as well as implications for seismic hazard. Then we'll travel to the spectacular south coast and examine Pleistocene and Holocene marine terraces between Lake Ferry and Cape Palliser, discussing the likely source of uplift and implications for vertical land movements.

#### **Additional Information:**

- Lunch is NOT included. Please BYO lunch and there are café's near the Wellington Waterfront to buy some beforehand.
- The Wairarapa can have a range of weather conditions including strong wind. Please bring water bottle, warm clothes, rain jacket, sun screen, sun hat.
- Minimum numbers required to run this Field Trip is 9, maximum number of participants is 25.

If you have any questions about this Field Trip, please contact [Nicola Litchfield](#), [Genevieve Coffey](#), [Julian Thomson](#)

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### **Sedimentation on an Evolving Margin**

**Leaders:** Ben Hines, Cliff Atkins (VUW)

**Level of Fitness Required:** A moderate level of fitness is required; walking will include 1-to-2-kilometre excursions, with some hills and some rocky shorefaces and stream beds encountered.

**Date:** 17 November

**Cost:** \$55 (covers transport only - lunch NOT included)

**Pick up:** Friday 17th November at 7am, from the Kelburn Parade bus stop outside [Victoria University, Kelburn Campus](#)

**Drop off:** Drop off will be at 6-7pm on the evening of Friday the 17th of November. Drop off

locations will be Wellington Railway Station, Kelburn Parade at Victoria University, and Wellington Airport by request.

This excursion explores the close linkage between basin tectonism and sedimentation in southeast Wairarapa. We will look at indicators of Cretaceous tectonism on the Gondwana margin, passive margin successions in the post-rift phase, the Cretaceous-Paleogene boundary, before delving into early stratigraphic indicators of Hikurangi margin subduction initiation and several instances of Neogene syn-tectonic sedimentation. Collectively, these sites tell the story of the evolution of the East Coast Basin, from subduction on the eastern Gondwana margin, to passive margin sedimentation, and the evolution of the modern Hikurangi convergent margin, all while exploring a diverse array of sedimentological features and stratigraphic events.

**Additional Information:**

- Bring boots or sturdy footwear, rain jacket, beanie, sunhat, sunblock, water bottle.
- Minimum numbers required to run this Field Trip is 6, maximum number of participants is 20.

If you have any questions about this Field Trip or have an accommodation request, please contact [Ben Hines](#), [Cliff Atkins](#), (VUW)

**Cancelled**

**Tsunamis and Related Geology around Wellington Harbour**

**Leaders:** Jean Roger & Russ van Dissen, GNS Science

**Level of Fitness Required:** Maximum walking distance is 1.6 km (return) on flat sandy/gravel track along the shore

**Date:** 1 day trip, 17th November

**Cost:** \$80 (*covers buses and cable car to top of Botanical Gardens - lunch NOT included*)

What is more impressive than having a capital city like Wellington sitting above a subduction zone, cut by several major seismic faults, and surrounded by the sea? This field trip, bringing people in well-known sites, will provide the opportunity to the participants to discover the history of earthquakes and tsunamis in Wellington, and also how these natural hazards are monitored (showing real instruments in-situ), for a better preparedness and protection of the population.

**Pick up:** From Wellington Train Station at 8am

**Drop off:** At Wellington Train Station at 5pm - drop off at the airport can be arranged at 4:30pm (*please contact the leader to arrange this*).

**Additional Information:**

- Lunch is NOT included. Please BYO your own packed lunch or you are able to buy sandwiches from TRAX café, Platform 1, at Wellington Station.
- Bring rain jacket, warm clothes (it could be windy), shoes for walking on a sandy/gravel track, water bottle for the day, sun screen, camera, snacks, lunch (we may have time to stop for coffee/tea at some points).
- Minimum numbers required to run this Field Trip is 12, maximum number of participants is 24.

If you have any questions about this Field Trip, please contact [Jean Roger](#) or [Russ van Dissen](#)

### **Special Interest Group Lunchtime Meetings**

Eight SIG meetings were held in classrooms near the exhibition area over the three lunchtimes.

#### **The Road to Publication: Advice from Editors and a Journal Publisher**

**Led by:** Dr Catherine Chagué (Editor-in-Chief, Sedimentary Geology) & Mr. Fei He, (Publishing Manager, New Zealand Journal of Geology and Geophysics)

This lunchtime event is aimed at new authors who are seeking guidance on the publishing process, especially those who are writing their first manuscript derived from their thesis or have limited experience of publishing in a peer-reviewed journal. The workshop will provide insights from both a journal editor and a Journal Publisher. The format of the event will be an informal Q&A session, allowing ample time for questions and discussion. Attendees will have the opportunity to engage in open dialogue, seek clarification, and gather valuable advice related to the publishing journey.

#### **Strong Roots: The Science NEMA Needs to Grow ‘Te Rākau Whakamarumarū’**

Led by Ashleigh Fromont

Join NEMA staff for a short presentation and Q&A session about the key challenges facing the emergency management sector now and into the future, and how research can enable solutions for resilience.

#### **Sedimentology Special Interest Group (SSIG)**

Led by Mark Lawrence

The annual meeting of the Sedimentology Special Interest Group (SSIG) will continue with planning of the IAS ISC 2026 and provide a forum for the planning and discussion local SSIG activities.

#### **Geochemistry Special Interest Group (GSIG) Lunchtime Meeting**

Led by Sebastian Naeher

We aim to have our yearly GSIG lunchtime meeting also at this year’s GSNZ Annual Conference. It is a great opportunity for interested group members to discuss any matters related to geochemistry in general or any of our group activities. We always discuss new initiatives and ideas for future activities and what we can do better going forward. We will share news and updates of the group, try to connect the various scientists at various career stages, and overall provide a good platform for networking and exchange of the NZ geochemistry community.

#### **A Crowd of Communicators: GeOID – SCANZ Combined Networking Lunch**

Led by Jenny Stein

Taking advantage of an overlap in conference dates and in lieu of a more formal GeOID SIG meeting that will be held online at another time, all GeoEducation, Outreach and International Development (GeOID) SIG members and other interested conference goers are invited to bring their lunch along to a combined social networking event with members of the Science Communicators’ Association of New Zealand (SCANZ). The topic of conversation: How can we combine forces to help make geoscience more engaging and accessible to all New Zealanders?

#### **Geoscience for Future Energy SIG**

Led by Jess Hillman

The Geoscience for Future Energy lunchtime meeting is an opportunity for interested group members to discuss any matters related to the special interest group or any of our group activities.

We welcome new initiatives and ideas for future activities and what we can do better going forward. We will share any news and updates from the group, discuss relevant issues, and try to connect members across different career stages, and overall provide a platform for networking and exchange of ideas across the research community.

### **GeoNet Programme Update**

Led by Catherine Ross, Jonathan Hanson, Elizabeth Abbott, Elisabetta D’Anastasio, and the GeoNet Team

Come kōrero with GeoNet! Learn about GeoNet’s strategic vision and highlights from the ongoing 5-year planning cycle and join us to talk about ways we can work together. How do we better align research and GeoNet operations? We want to share examples of the spectrum of collaborations from the past several years, kōrero about ways we can best work together, and hear from you about what’s on your horizon in the coming years.

### **Saving Earth Science – Joint university discussion group**

Facilitated by GSNZ Secretary, Jenny Stein.

Representatives from universities around the country have been meeting online to discuss ways we and the GSNZ might collaborate to address the falling numbers of students enrolling in undergraduate earth science courses in Aotearoa New Zealand. Geosciences 2023 is providing our first opportunity to meet in person, during which we will review initiatives and decide where to focus our efforts in 2024. Anyone interested in helping boost the numbers of students taking Earth science at the tertiary undergraduate level is welcome to come!

### **Planning and Management**

Conferences & Events Ltd was engaged by the Geoscience Society of NZ to assist with planning and management as outlined in the Division of Responsibilities sheet:

<b>Administration and Planning</b>	<b>Client</b>	<b>C&amp;E</b>
Draft agenda, attend and take minutes and circulate minutes of planning meetings		✓
Produce timeline planner and assist in ensuring that tasks are completed within appropriate timeframes		✓
Attend site visit meeting at venue with suppliers	✓	✓
Provide questions for online survey	✓	✓
Draft and circulate delegate on-line survey		✓
Analyse survey results	✓	✓
Prepare post-conference report		✓
Produce student timetable and brief students on their roles onsite - if required	✓	✓
Develop guidelines with LOC for Chairs & MC's & distribute	✓	✓
<b>Health &amp; Safety and Risk Management Plan – Health and Safety at Work Act 2015</b>		
Research and prepare documents to comply with the Act. Work with venue, clients, and suppliers.		✓
<b>Invited Speakers</b>		
Agree with invited speakers what costs the conference will cover - or instruct C&E to manage	✓	✓
Source invited speaker photos and biographies for handbook, website, and app (as applicable)		✓
Collate abstracts, biographies, and photos into a document for handbook and online		✓
LOC to provide invited speaker content to C&E to be included in the conference app and on the website	✓	✓
Manage invited speaker registration		✓
Order invited speaker gifts		✓
Send out thank you letters to invited speakers if required		✓
<b>Public Lecture</b>		
Liaise with public speakers regarding arrangements and logistics as required		✓
Assist with promotion		
<b>Programme planning, theme and design of conference images and collateral</b>		
Brainstorm design image	✓	
Prepare brief for designer of conference image, including website header, print collateral, work with designer on production and present to organising committee for agreement.		✓
Sign off on conference image	✓	
<b>Promotion and Marketing</b>		
Work with Client to prepare promotion/marketing plan		✓
Manage conference promotion including advertising, links, emails, and research opportunities	✓	✓
Build, host and manage website		✓
Use existing databases for promotion		
Supply any further database and advise on relevant channels for distributing information	✓	✓
GSNZ to manage Society social media channels for promotion	✓	
Sign off key communications	✓	

<b>Design &amp; Print</b>		
Manage the design, print, production and delivery of handbook		✓
Manage the design, print and production of the abstract volume – or additional contract to C&E	✓	
C&E and LOC to work together to determine required onsite signage	✓	✓
Manage the design, print, production, and delivery of all nametags		✓
<b>Venue, Catering and AV</b>		
Research and prepare feasibility on venues for committee sign off (if required)		✓
Confirm venue and sign contract	✓	
Liaise with venue on all aspects of room layout, catering and logistics		✓
Prepare AV brief, schedule, negotiate contract with AV suppliers and provide supervision on delivery		✓
Produce conference run sheets for all suppliers onsite		✓
<b>Social Functions</b>		
Source potential venues	✓	✓
Sign venue contract	✓	
Select/ recommend menus for Client sign off		✓
Source entertainment suggestions	✓	✓
Select entertainment	✓	
Liaise with venue on logistics, numbers, etc		✓
Prepare run sheets for each social event and circulate to all suppliers		✓
Onsite management of event		✓
<b>Financial</b>		
Research quotes and costings for budget		✓
Prepare feasibility budget with recommendations		✓
Set up Constructive Trust account at the Bank of New Zealand with seed funding from Client and manage invoices from that bank account in conjunction with Xero accounting package. Seed funding to be returned to Client after final reconciliation of accounts.		✓
Sign off on budget and registration fees, including workshops, field trips and social functions	✓	
Financial management of all supplier and delegate inward and outward invoices		✓
Update budget with actuals as payments are made		✓
Manage Conference bank account		✓
Manage reconciliations of income and expenditure		✓
Issue invoices for delegates, sponsors and follow up with statements and collection of monies		✓
Collect all fees during registration		✓
Manage the payout of Student Travel Grant Funds and Awards to recipients on instruction from the Client		✓
Provide online secure credit card facilities		✓
Obtain conference cancellation insurance and ensure that this is kept up to date with current budget		✓
Manage GST returns		✓
Prepare final set of accounts for Client (and auditor if required)		✓
<b>Call for Abstracts &amp; Call for Session Submissions</b>		



Design and manage the Call for Session Submissions plus the online abstract submission process		✓
Provide list of topics for abstracts	✓	
Discuss and confirm guidelines for submission	✓	✓
Proof and sign off online form	✓	
Manage submissions and confirmations to presenters		✓
Provide LOC with export of abstracts and submission details		✓
Select reviewers & advise C&E	✓	
Set up online review process		✓
LOC provide C&E with return spreadsheets of accepted, reserved, and declined submissions	✓	
Update presentation status		✓
Approve text for acceptance, reserve, and decline letters	✓	
Send out acceptance, reserve, and decline emails		✓
Update agenda, app, and website with presentation information		✓
Manage photo and biography submissions and chase presenters for missing content – if required		✓
<b>Registration</b>		
Design and manage entire registration process for delegates, speakers and exhibitors		✓
Make any amendments to form		✓
Trial, proof and sign off online registration form	✓	
Manage online registration and queries from delegates		✓
Manage processing and banking of registration fees and provide income reports		✓
Send out registration confirmations & welcome letter		✓
Prepare and send out all other pre and post conference communications		✓
Chase any outstanding payments		✓
Onsite registration, conference, and exhibition management staff		✓
<b>Membership Verification</b>		
C&E to provide nominated committee portal access to registration lists for cross checking valid membership	✓	✓
Committee to cross check membership against registrations received	✓	
Follow up for any outstanding membership renewal fees to be completed by the committee/GSNZ	✓	
<b>Accommodation</b>		
Research and negotiate with hotels to secure best prices and offers for delegates. Take responsibility for agreements and manage release dates within agreement		✓
Sign hotel contracts and take risk on holding and releasing rooms		✓
Manage delegate accommodation bookings		✓
Send final rooming lists to hotels (where required)		✓
University Hall bookings: LOC to make initial contact & select Halls	✓	
University Hall bookings: C&E to manage online bookings, collection of payment and pass to University		✓
Onsite liaison/check in/queries for university halls – official Halls contact onsite for this.		✓
<b>Sponsorship &amp; Exhibition</b>		
Work with sponsorship subcommittee to prepare sponsorship campaign and agree on packages		✓

Produce prospectus - if required		✓
Research database and work with committee on expanding list and identifying new partners	✓	✓
Approach sponsors via phone and/or bespoke sponsorship request email and cc in C&E manager	✓	
Manage sponsors <u>from point of sale</u> , track and support the committee with sponsorship deliverables		✓
Obtain quotes from exhibition companies and confirm contracts for exhibition set up and breakdown		✓
Produce exhibition manual with Health & Safety policies		✓
Liaise with venue on design of floor plan		✓
Send out sponsor invoices and secure payments		✓
<b>Onsite Management (and staff at registration desk)</b>		
Liaise closely with Client to support and advise onsite throughout the conference		✓
Chair sessions or assist with assigning the chairs of sessions	✓	
Supervise pack-in & pack-out of suppliers and exhibition		✓
Provide onsite technical equipment: laptops, printer, name badge collateral		✓
Ensure room layouts are correct		✓
Give an onsite staff brief/walk round of venue		✓
Ensure signage is in correct position	✓	✓
Meet daily with venue duty-manager to run through schedule of events		✓
Staff the registration/information desk		✓
Oversee tour departures – (managed by field trip leaders)	✓	✓
Ensure AV is running to plan	✓	✓
Ensure catering is running to plan		✓
Onsite management of social events		✓
Supervise exhibition daily		✓
Liaise throughout the conference with conveners on updates - if and as required		✓
<b>Field Trips</b>		
Field Trip subcommittee to plan and organise field trips or instruct C&E to source options based on a brief	✓	
Allocate/assign field trip lead/s	✓	
Obtain or write field trip promotion info and finalise registration fees with leads prior to online registration going live	✓	✓
C&E to upload and update promotion info onto website		✓
Collection of registration fees (incorporated into the conference registration form)		✓
Liaise with field trip leads/LOC regarding trips' viability closer to date	✓	✓
Liaise with field trip locations, supplying numbers, names, details, catering etc where required		✓
Provide field trip leaders with pre-trip Risk Management and H & S info / forms to collect from attendees		✓
Payment of suppliers to field trip: Client to approve and instruct C&E to pay		✓

### **Sponsorship and Exhibition**

C&E put together the sponsorship proposal to send out to organisations and the conference committee made the initial approach. C&E ensured all benefits were delivered as outlined in the prospectus.

Name	Organization	Package	\$
Azuma, Fernanda	Beca Limited	Bronze Sponsorship	4,600.00
Terezow, Marianna	GeoDiscoveryNZ	Bronze Sponsorship	4,600.00
Smith, Richard	Resilience to Nature's Challenges	Bronze Sponsorship	4,600.00
He, Fei	Royal Society Te Apārangi	Bronze Sponsorship	4,600.00
Duggan, Mrs Chris	House of Science NZ	Exhibition Stand	0.00
Wilson, Gary	GNS Science	Gold Sponsorship	13,800.00
Blyth, Mia	NIWA	Silver Sponsorship	7,475.00
Geoscience Society of New Zealand	Geoscience Society of New Zealand	Tourism NZ's Sponsorship of GSNZ 2023	3,450.00
Merlo, Janette	Toka Tū Ake EQC	Silver Sponsorship	7,475.00
			<b>Total</b> <b>\$50,600.00</b> Including GST

### **Finances**

The conference surplus of \$7,931.36 including GST was deposited into the GSNZ account on 20<sup>th</sup> March 2024. The Final financial reports – Profit & loss, Account Transactions and Balance Sheet, were sent to the Treasurer Alan Orpin.

### Delegate List

Name	Organization	Registration Type
Abbott, Elizabeth	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Adam, Mila	The University of Auckland	GSNZ Member Full registration (Standard Rate)
Aden-Antoniow, Dr Florent	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Adikari, Kasuni	Massey University	Student Non-Member (Standard Rate)
Aghaee-Naeini, Mr Amin	The University of Auckland	Student Non-Member (Early Bird Rate)
Allen, Ms Jessica	University of Otago	Student Member (Early Bird Rate)
Almassri, Mr Mustafa R M	Massey University	Student Member (Early Bird Rate)
Almond, Associate Professor Peter	Lincoln University	GSNZ Member Full registration (Early Bird Rate)
Alves, Miss Luana	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Anane, Mr Timothy	Massey University	Student Member (Early Bird Rate)
Andrews, Jen	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Armstrong, Graydon	Victoria University of Wellington	Student Member (Early Bird Rate)
Atkins, Dr Cliff	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Balfoort, Miss Linda	Antarctic Research Centre	Complimentary Registration
Balfour, Dr Natalie	Toka Tū Ake EQC	Complimentary Sponsor
Bann, Dr Glen	University of Wollongong	Day Registration - Wednesday 15 November
Barker, Dr Simon	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Barnes, Dr Philip	NIWA	Plenary Speaker
Barrell, Mr David	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Barth, Dr Nicolas C.	University of California	GSNZ Member Full registration (Early Bird Rate)
Basinger, Dr. James	University of Saskatchewan	Retired Member (Early Bird)
Bassett, Dan	GNS Science Te Pū Ao	Day Registration - Thursday 16 November
Batteux, Daria	University of Canterbury	Student Member (Early Bird Rate)
Baxter, Miss Rachael	University of Otago	Student Member (Early Bird Rate)

Becker, Dr Julia	Massey University	Non-Member Full registration (Early Bird Rate)
Beggs, Dr Mac	Beggs Geological	Day Registration - Wednesday 15 November
Behr, Mr Yannik	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Bennie, Geophysicist Stewart	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Benson, Mr Thomas	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Berra, Dr Ivan	Hydrogeoex Ltd	GSNZ Member Full registration (Early Bird Rate)
Bertaud-Gandar, Ms Tamsin	MBIE	Day Registration - Wednesday 15 November
Blackadder, Nathan	Victoria University of Wellington	Student Non-Member (Standard Rate)
Bland, Dr Kyle	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Bland, Lara	NEMA	Day Registration - Tuesday 14 November
Bora, Dr Sanjay	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Boulton, Dr Carolyn	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Bourguignon, Dr Sandra	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Boyes, Mr Andrew Frederick	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Bradshaw, Miss Jennifer	Beca Ltd	Complimentary Sponsor
Bramwell, Mr Liam	Victoria University of Wellington	Student Member (Early Bird Rate)
Brewer, Dr Ian	Todd Energy	GSNZ Member Full registration (Standard Rate)
Briggs, Dr Sophie	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Brodnax, Mr Robert	University of Waikato	Student Member (Early Bird Rate)
Broek, Wendel	University of Otago	Student Member (Early Bird Rate)
Buffett, Mr William	University of Southampton	Student Non-Member (Early Bird Rate)
Burbidge, Dr David Ross	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Bushell, Dr Tabitha	Toka Tū Ake EQC	Complimentary Sponsor
Cameron, Mr Hamish	MBIE	Day Registration - Thursday 16 November
Campbell, Dr Hamish	GNS Science Te Pū Ao	Retired Member (Standard Rate)
Campbell, Miss Jessica	Pattle Delamore Partners	GSNZ Member Full registration (Early Bird Rate)

Carroll, Mr Dene	Victoria University of Wellington	Non-Member Full registration (Early Bird Rate)
Cave, Dr Murry	Gisborne District Council	GSNZ Member Full registration (Early Bird Rate)
Chagué, Dr Catherine	University of New South Wales	Retired Member (Early Bird)
Chalmers, Logan	University of Otago	Student Member (Standard Rate)
Chamberlain, Dr Calum	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Chandrakumar, Mr Chanthujan	Massey University	Student Non-Member (Early Bird Rate)
Chanony, Mrs Solen	University of Otago	Student Member (Early Bird Rate)
Charlton, Dr Danielle	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Chester, Dr Pamela	Geoscience Society of NZ	Retired Member (Early Bird)
Chin, Mr Shao-Jinn	Victoria University of Wellington	Student Member (Early Bird Rate)
Christie, Dr Tony	GNS Science Te Pū Ao	Retired Member (Early Bird)
Christophersen, Dr Annemarie	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Chua, Teik Jin	Victoria University of Wellington	Student Member (Early Bird Rate)
Clark, Claire	-	Day Registration - Thursday 16 November
Clark, Hannah	Victoria University of Wellington	Student Volunteer
Clark, Mr Andrew		Retired Member (Early Bird)
Clouston, Mr Samuel	Victoria University of Wellington	Student Volunteer
Clowes, Dr Chris	GNS Science Te Pū Ao	Day Registration - Thursday 16 November
Coffey, Dr Genevieve	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Collins, Mr Nathan	The University of Auckland	Student Member (Early Bird Rate)
Contla Hernandez, Ms Brenda	Massey University	Student Member (Early Bird Rate)
Cook, Andrew	SGS	GSNZ Member Full registration (Standard Rate)
Cooper, Nadine, P.	University of Otago	Student Member (Early Bird Rate)
Cox, Dr Simon C.	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Crampton, James	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Crighton, Mr Mathew	Engeo	GSNZ Member Full registration (Standard Rate)

Criglington, Mr Liam	University of Otago	Student Member (Early Bird Rate)
Crundwell, Dr Martin	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Daglish, Mr Joshua	University of Canterbury	Student Non-Member (Early Bird Rate)
D'Anastasio, Mrs Elisabetta	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
D'Ath Woodd, Ms Michele	SeisMomentum Ltd	GSNZ Member Full registration (Early Bird Rate)
Davey, Dr Fred		Retired Member (Early Bird)
Davidson, Dr Sam R.	NIWA	Early Career Researcher (Early Bird Rate)
Davidson, Miss Lucy	University of Otago	Student Member (Early Bird Rate)
De Meyer, Mr Cédric	Victoria University of Wellington	Student Member (Early Bird Rate)
De Vilder, Dr Saskia	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Decker, Dr John	MBIE	GSNZ Member Full registration (Early Bird Rate)
Delano, Jaime	University of Canterbury	Student Member (Early Bird Rate)
Dempsey, David	University of Canterbury	Day Registration - Wednesday 15 November
Denys, Dr Paul	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Devakumar, Ms Megha	University of Otago	Student Member (Early Bird Rate)
Directorate, Resilience to Nature's Challenges	GNS Science Te Pū Ao	Complimentary Sponsor
Ditchburn, Mr Robert	GNS Science Te Pū Ao	Day Registration - Tuesday 14 November
Doll, Pedro	University of Canterbury	Student Member (Early Bird Rate)
Dreyer, Livio	University of Canterbury	Student Member (Early Bird Rate)
Ducrocq, Cécile	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Duggan, Sharryn	GNS Science	Complimentary Exhibitor
Duncan, Dr Bella	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Dunkin, Mr Miles	MBIE	GSNZ Member Full registration (Early Bird Rate)
Eaves, Dr Ashton	Hawkes Bay Regional Council	Day Registration - Tuesday 14 November
Ellis, Dr Susan	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Eschenroeder, Mr Julian	University of Otago	Student Member (Early Bird Rate)

Evans, Ms Alice	NEMA	Day Registration - Tuesday 14 November
Faure, Dr Kevin	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Fauzi, Dr Usama	Engeo Limited	GSNZ Member Full registration (Standard Rate)
Fay, Ms Sophie	University of Canterbury	Student Member (Early Bird Rate)
Finnegan, Dr Noah	University of California, Santa Cruz	Non-Member Full registration (Early Bird Rate)
Fisher, Kellen	MBIE	Day Registration - Tuesday 14 November
Fitzgerald, Ms Michelle	University of Otago	Student Member (Early Bird Rate)
Fleming, Miss Madi	University of Otago	Student Member (Early Bird Rate)
Francois-Holden, Dr Caroline	SeismoCity Ltd	GSNZ Member Full registration (Early Bird Rate)
Fraser, Ms Hazel	University of Canterbury	Student Member (Early Bird Rate)
Frean, Mr Dante	University of Otago	Student Member (Early Bird Rate)
Fromont, Ms Ashleigh	NEMA	Day Registration - Wednesday 15 November
Frontin-Rollet, Ms Grace	NIWA	GSNZ Member Full registration (Early Bird Rate)
Gair, Pene	GNS Science Te Pū Ao	Day Registration - Wednesday 15 November
Galbraith, Miss Libby	MBIE	Non-Member Full registration (Early Bird Rate)
Gallagher, Michelle		Day Registration - Thursday 16 November
Gard, Henry	GNS Science Te Pū Ao	Day Registration - Wednesday 15 November
German, Miss Tabitha	University of Otago	Student Member (Early Bird Rate)
Gerstenberger, Matthew	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Ginnane, Dr Cathy	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Gledhill, Dr Ken	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Gorman, Dr Andrew	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Gorman, Mrs Jean L		Retired Member (Early Bird)
Gorman, Ms Clare	University of Otago	Student Member (Early Bird Rate)
Gouwland, Mr Adam	Victoria University of Wellington	Student Member (Early Bird Rate)
Graham, Kenny	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)



Grech Licari, Miss Jacqueline	Victoria University of Wellington	Student Member (Early Bird Rate)
Griffin, Ms Angela	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Groom, Mr Joshua	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Gruender, Kerstin	Victoria University of Wellington	Student Member (Early Bird Rate)
Gusman, Dr Aditya	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hackney, Dr Ron	Australia New Zealand IODP Consortium	Non-Member Full registration (Early Bird Rate)
Hamilton, Mr Ayrton	The University of Auckland	Early Career Researcher (Standard Rate)
Hamling, Dr Ian	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Handler, Monica	Te Herenga Waka - Victoria University Of Wellington	Day Registration - Wednesday 15 November
Hanifah, Miss Dina	The University of Auckland	Student Non-Member (Early Bird Rate)
Hannah, Dr Mike	Victoria University of Wellington	Complimentary Registration
Hansen, Mr Lars	Victoria University of Wellington	Student Volunteer
Hanson, Dr Jonathan	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hanson, Miss Johanna	University of Canterbury	Student Member (Early Bird Rate)
Harrison, Dr Sara	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Hayward, Dr Bruce W.	Geomarine Research	Retired Member (Early Bird)
He, Mr Fei	Royal Society Te Apārangi	Complimentary Sponsor
Heise, Dr Wiebke	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hennequin, Miss Marie Andréa	University of Otago	Student Member (Early Bird Rate)
Henrys, Dr Stuart	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Henwood, Miss Jessie Leigh	University of Canterbury	Student Member (Early Bird Rate)
Herath, Dr Pasan	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Hill, Lachlan	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Hill, Mr Matthew	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hillman, Dr Jess	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hines, Dr Ben	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)

Hirakura, Dr. Kei	Yokohama National University, Japan	Day Registration - Wednesday 15 November
Hoggard, Mrs Jane	House of Science NZ	Day Registration - Wednesday 15 November
Hollis, Dr Christopher J.	Victoria University of Wellington	Retired Member (Early Bird)
Holt, Dr Katherine	Massey University	GSNZ Member Full registration (Early Bird Rate)
Homes, Dr Aline	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Homes, John	Geoscience Society of NZ	Retired Member (Early Bird)
Hopkins, Dr Jenni L	Victoria University of Wellington	Day Registration - Wednesday 15 November
Hosse, Luisa	NIWA	GSNZ Member Full registration (Early Bird Rate)
Hoult, Mr Henry	University of Canterbury	Student Member (Early Bird Rate)
Howard, Ali	C&E	C&E Staff
Howell, Dr Andy	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Hreinsdóttir, Dr Sigrún	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hudson, Mr Sam	MBIE	Early Career Researcher (Early Bird Rate)
Huebsch, Mila	The University of Auckland	Student Member (Early Bird Rate)
Hughes, Bethany	Victoria University of Wellington	Student Volunteer
Hughes, Dr Ery	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Hughes, Ms Katie E.	Victoria University of Wellington	Student Non-Member (Early Bird Rate)
Hughes, Ms Laura	Victoria University of Wellington	Student Member (Early Bird Rate)
Humphrey, Miss Jade	University of Canterbury	Student Member (Early Bird Rate)
Iio, Dr Yoshihisa	Kyoto University	Non-Member Full registration (Early Bird Rate)
Illsley-Kemp, Dr Finnigan	Victoria University of Wellington	Early Career Researcher (Early Bird Rate)
Ippolitov, Mr Alexey	Victoria University of Wellington	Student Volunteer
Jack, Helen	Environment Canterbury	GSNZ Member Full registration (Early Bird Rate)
James, Laura	Victoria University of Wellington	Student Member (Early Bird Rate)
Jaramillo, Mr Alfredo	Massey University	Student Member (Early Bird Rate)
Johns, Bjorn	Toitū Te Whenua	Non-Member Full registration (Standard Rate)

Jones, Ms Katie	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Joynt, Peter	Seequent	Day Registration - Wednesday 15 November
Juarez Garfias, Mr Ilma Del Carmen	Victoria University of Wellington	Student Member (Early Bird Rate)
Kaiser, Dr Anna	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Kearse, Mr Jesse	Victoria University of Wellington	Student Non-Member (Early Bird Rate)
Keet, Drs Ben	Geo & Hydro - K8 Ltd	GSNZ Member Full registration (Early Bird Rate)
Kennedy, Liz	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Kennedy, Prof Ben	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Kereszturi, Gabor	Massey University	GSNZ Member Full registration (Early Bird Rate)
Kidd, Ms Maia	Massey University	Student Member (Early Bird Rate)
Kilgour, Geoff	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
King, Mr Ciaran	GNS Science Te Pū Ao	Student Non-Member (Standard Rate)
King, Mr Gabriel	Victoria University of Wellington	Student Volunteer
Krapp, Dr Mario	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Kraus, Mr Christoph	Beca Ltd	GSNZ Member Full registration (Early Bird Rate)
Kroeger, Dr Karsten	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Kroher, Lukas	Massey University	Student Non-Member (Standard Rate)
Kumar, Mr Satendra	The University of Auckland	Student Non-Member (Early Bird Rate)
Kwong, Mr Stephen	Victoria University of Wellington	Student Member (Early Bird Rate)
Lacoua, Miss Luce	University of Otago	Student Member (Early Bird Rate)
Lamarche, Dr Geoffroy	Office of the Parliamentary Commissioner for the Environment	Day Registration - Thursday 16 November
Lamb, Dr Simon	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Lamb, Oliver	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Langridge, Dr Robert	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Lawrence, Mark	GNS Science Te Pū Ao	SIG Meeting Only

Leath, Jacob	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Lee, Julie	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Leenman, Dr Anya	Victoria University of Wellington	Early Career Researcher (Early Bird Rate)
Leith, Dr Kerry	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Leonard, Dr Graham	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Lewis, Dr Christian	GNS Science Te Pū Ao	Complimentary Sponsor
Lewis, Kristen	University of Canterbury	Student Member (Early Bird Rate)
Liao, Ms Yi-Wun Mika	GNS Science Te Pū Ao	Student Member (Early Bird Rate)
Litchfield, Nicola	GNS Science Te Pū Ao	Day Registration - Thursday 16 November
Little, Timothy Alden	Victoria University of Wellington	Retired Member (Early Bird)
Liu, Mr Jinjiang	University of Canterbury	Student Non-Member (Early Bird Rate)
Ma, Dr Quincy	The University of Auckland	Day Registration - Wednesday 15 November
MacRae, Calum	Engeo Ltd	GSNZ Member Full registration (Standard Rate)
Madley, Megan	MBIE	GSNZ Member Full registration (Early Bird Rate)
Mancilla, Ms Flor De Lis	Granada University, Granada, Spain	Non-Member Full registration (Standard Rate)
Manea, Dr Elena	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Marshall, Mr AJ	Victoria University of Wellington	Student Volunteer
Martin, Dr Adam P.	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Martin, Hannah E	The University of Auckland	Student Member (Early Bird Rate)
Martinez Garcia, Andres	University of Granada	Student Member (Early Bird Rate)
Marx, Felix Georg	Te Papa Tongarewa	Day Registration - Thursday 16 November
Mattin, Mr Alex	Victoria University of Wellington	Student Member (Early Bird Rate)
Mazumdar, Adrija	NZPAM	Non-Member Full registration (Early Bird Rate)
McColl, Dr Sam	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
McDonnell, Randall	GNS Science	Complimentary Exhibitor
McFerrier, Miss Emma	University of Canterbury	Student Member (Early Bird Rate)

McGowan, Mr Sam	Massey University	Student Member (Early Bird Rate)
Mcgowan, Ms Luxor	Conferences & Events	C&E Staff
Mckay, Professor Robert	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Mclean, Mr Aidan	The University of Auckland	Student Member (Early Bird Rate)
McLeod, Dr Oliver Emerson	Waikato Regional Council	Early Career Researcher (Early Bird Rate)
Mead, Dr Stuart	Massey University	GSNZ Member Full registration (Early Bird Rate)
Mengesha, Mr Dagim Yoseph	Victoria University of Wellington	Student Member (Early Bird Rate)
Mestel, Eleanor R. H.	Victoria University of Wellington	Student Member (Early Bird Rate)
Miller, Dr Craig	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Miller, Dr Victoria	GNS Science Te Pū Ao	GSNZ Member Full registration (Standard Rate)
Miller, Miss Anna	Victoria University of Wellington	Student Non-Member (Early Bird Rate)
Mimbi, Mr Chancel	MBIE	Day Registration - Tuesday 14 November
Moreras Marti, Dr Arola	The University of Auckland	Early Career Researcher (Early Bird Rate)
Morice, Dr Steve	Todd Energy	GSNZ Member Full registration (Early Bird Rate)
Morriss, Mrs Sasha	Waitaki Whitestone Geopark	GSNZ Member Full registration (Early Bird Rate)
Mortimer, Dr Nick	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Mueller, Dr Christof	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Naeher, Dr Sebastian	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Naguit, Dr Muriel	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Nandana, Mr Rasika	Victoria University of Wellington	Student Member (Early Bird Rate)
Nelson, Dr Faye	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Neverman, Dr Andrew	Manaaki Whenua	GSNZ Member Full registration (Early Bird Rate)
Newsham, Sophie	University of Canterbury	Student Member (Early Bird Rate)
Ngadi, Ms Natasha	The University of Auckland	Student Member (Early Bird Rate)
Nichols, Dr Alex	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Nicholson, Samantha	GNS Science Te Pū Ao	Student Non-Member (Standard Rate)

Niroula, Mr Govinda Prasad	University of Otago	Student Member (Early Bird Rate)
Nisa, Mrs Maritsa Faridatun	University of Otago	Student Member (Early Bird Rate)
Nodder, Dr Scott	NIWA	Complimentary Sponsor
Norris, Ms Margaret	GNS Science Te Pū Ao	Day Registration - Wednesday 15 November
Norton, Dr Kevin	Victoria University of Wellington	GSNZ Member Full registration (Standard Rate)
Obren, Miss Nicole	Victoria University of Wellington	Student Volunteer
O'Hagan, Miss Sarah	Victoria University of Wellington	Student Member (Standard Rate)
Ohashi, Dr Masatoshi	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Okada, Dr Tomomi	Tohoku University	Non-Member Full registration (Early Bird Rate)
Oliver, Mr Will	University of Otago	Student Member (Early Bird Rate)
Oliver, Mrs Liz	Tauranga City Council	GSNZ Member Full registration (Early Bird Rate)
Omidiji, Dr Jokotola	University of Otago	Non-Member Full registration (Standard Rate)
Orchard, Isaac	Tauranga City Council	Student Non-Member (Early Bird Rate)
Orpin, Dr Alan	NIWA	Complimentary Sponsor
Parker, Mr Matt	University of Canterbury	Early Career Researcher (Early Bird Rate)
Parsons, Natalie	GNS Science Te Pū Ao	Day Registration - Tuesday 14 November
Patel, Miss Janki Prakash	The University of Auckland	Student Member (Early Bird Rate)
Pearson-Grant, Dr Sophie	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Percy, Chelydra	GNS Science Te Pū Ao	Complimentary Sponsor
Perez Silva, Andrea Carolina	University of Otago	Early Career Researcher (Early Bird Rate)
Perttu, Brian	Massey University	Student Member (Early Bird Rate)
Perttu, Ms Anna	Massey University	Student Member (Early Bird Rate)
Phillips, Dr Chris	Manaaki Whenua	Non-Member Full registration (Early Bird Rate)
Pita-Sllim, Olivia	Victoria University of Wellington	Student Member (Early Bird Rate)
Piva, Mr Stephen	Victoria University of Wellington	Student Member (Early Bird Rate)
Pola, Miss Ari	The University of Auckland	Student Non-Member (Early Bird Rate)

Powell, Dr Nicholas	Forensic & Industrial Science Ltd	GSNZ Member Full registration (Early Bird Rate)
Power, Dr William	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Pradel, Mr Giovanni	NZPAM	Non-Member Full registration (Early Bird Rate)
Prasanna, Dr Raj	Massey University	Non-Member Full registration (Early Bird Rate)
Pratscher, Ms Kristin	Victoria University of Wellington	Student Non-Member (Early Bird Rate)
Prebble, Dr Joseph	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Procter, Professor Jonathan	Massey University	Plenary Speaker
Quinn, Nina	Victoria University of Wellington	Student Member (Early Bird Rate)
Radu, Serghei		Non-Member Full registration (Standard Rate)
Rajabi, Dr Mojtaba	University of Queensland	Non-Member Full registration (Early Bird Rate)
Rapson Nuñez del Prado, Caleb	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Rattenbury, Mark	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Reid, Dr Catherine	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Reyes, Ms Lizette	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Ribó, Dr Marta	Auckland University of Technology	GSNZ Member Full registration (Early Bird Rate)
Richards, Marcus	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Riddell, Mr Jordan	University of Otago	Student Member (Early Bird Rate)
Riman, Ayoub	ENGEO	GSNZ Member Full registration (Standard Rate)
Robert, Geoffrey	Massey University	Student Member (Early Bird Rate)
Roberts, Mr Willy	Tonkin & Taylor	GSNZ Member Full registration (Early Bird Rate)
Roger, Dr Jean	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Rollins, Dr Chris	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Rooyackers, Dr Shane	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Ruz Ginouves, Ms Javiera Andrea	University of Otago	Student Member (Early Bird Rate)
Ryan, Mr Matt	Pattle Delamore Partners	GSNZ Member Full registration (Early Bird Rate)
Sagar, Dr Matthew	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)

Sahoo, Dr Tusar Ranjan	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Sakik, Miss Saima	The University of Auckland	Early Career Researcher (Early Bird Rate)
Salichon, Jerome	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Sanchez Galindo, Luis Alfredo	Geotem Ingeniería	Non-Member Full registration (Standard Rate)
Sanchez, Rachelle	Massey University	Student Member (Early Bird Rate)
Savage, Professor Martha	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Sayers, Nicki	Geoscience Society of NZ	GSNZ Staff
Scott, Miss Emmy	Massey University	Student Member (Early Bird Rate)
Seebeck, Hannu	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Seelig, Miss L. K.	Victoria University of Wellington	Student Member (Early Bird Rate)
Selvaraj, Dr Sadhvi	Dragonfly Data Science	Day Registration - Tuesday 14 November
Semper, Pascal	TU Bergakademie Freiberg	Student Non-Member (Early Bird Rate)
Shalla, Miss Yaasameen	GNS Science Te Pū Ao	Early Career Researcher (Early Bird Rate)
Sharman, Dr Glenn	University of Arkansas	GSNZ Member Full registration (Early Bird Rate)
Smith, Dr Hugh	Manaaki Whenua	GSNZ Member Full registration (Early Bird Rate)
Smith, Dr Richard	Resilience National Science Challenge	Complimentary Sponsor
Smith, Mr Jack Andrew	University of Edinburgh	Student Member (Standard Rate)
Sork, Ms Amilea	University of Canterbury	Student Member (Early Bird Rate)
Southey, Sandy	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Spasov, Dr Edelvays	Kinematics	Day Registration - Tuesday 14 November
Spesivtsev, Aleksandr	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Stahl, Dr. Tim	University of Canterbury	GSNZ Member Full registration (Early Bird Rate)
Stein, Ms Jenny	Geoscience Society of NZ	GSNZ Staff
Steinke, Bastian	The University of Auckland	Student Member (Early Bird Rate)
Stern, Professor Tim	Victoria University of Wellington	Retired Member (Early Bird)
Stevenson, Lottie	Victoria University of Wellington	Student Volunteer



Stirling, Professor Claudine	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Stokoe, Michael	Tourism NZ	Day Registration - Tuesday 14 November
Sturgess, Mr Daniel	Massey University	Student Member (Early Bird Rate)
Sutherland, Professor Rupert	Victoria University of Wellington	GSNZ Member Full registration (Early Bird Rate)
Tamsen, Delia	Toka Tū Ake EQC	Student Non-Member (Early Bird Rate)
Tan, Dr Marion Lara	Massey University	Non-Member Full registration (Early Bird Rate)
Tapuke, Kelvin		Complimentary Registration
Taylor-Offord, Mr Samuel	GNS Science Te Pū Ao	Non-Member Full registration (Standard Rate)
Tennyson, Alan	Te Papa Tongarewa	Day Registration - Thursday 16 November
Terezow, Ms Marianna	GNS Science Te Pū Ao	Complimentary Sponsor
Tetard, Dr Martin	GNS Science Te Pū Ao	Day Registration - Thursday 16 November
Thingbaijam, Dr Kiran Kumar	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Thomas-Long, Mr Alex	GNS Science Te Pū Ao	Non-Member Full registration (Standard Rate)
Thomson, Mr Julian	Out There Learning	GSNZ Member Full registration (Early Bird Rate)
Thorpe-Loversuch, Mr Sam	Victoria University of Wellington	Student Member (Early Bird Rate)
Thrasher, Dr Glenn	GNS Science Te Pū Ao	Retired Member (Early Bird)
Tickle, Miss Stephanie	Victoria University of Wellington	Student Member (Early Bird Rate)
Tildesley, Pip	Victoria University of Wellington	Student Member (Early Bird Rate)
Townend, Ms Shaelyn Estella Treffery	University of Canterbury	Student Member (Early Bird Rate)
Tozer, Dr Brook	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Tracey Kyrliuk, Mx Taylor	University of Ottawa	Student Non-Member (Early Bird Rate)
Tsyplenkov, Dr Anatoii	Manaaki Whenua	GSNZ Member Full registration (Early Bird Rate)
Turnbull, Dr Jocelyn	GNS Science Te Pū Ao	Day Registration - Wednesday 15 November
Underwood, Ms Abigail	University of Canterbury	Student Member (Early Bird Rate)
Unland, Ellen	University of Otago	Student Member (Early Bird Rate)
Upton, Dr Phaedra	GNS Science Te Pū Ao	Complimentary Sponsor

Vale, Dr Simon	Manaaki Whenua	GSNZ Member Full registration (Early Bird Rate)
Van Dissen, Mr Russ	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Vargo, Lauren	Victoria University of Wellington	Plenary Speaker
Vause, Miss Ashleigh	University of Otago	Student Member (Early Bird Rate)
Verleijdsdonk, Mr Bert	Massey University	Student Member (Early Bird Rate)
Vicente, Miss Juliette	Massey University	Student Member (Early Bird Rate)
Vinnell, Dr Lauren	Massey University	Non-Member Full registration (Early Bird Rate)
Viskovic, Mr Paul	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Wall, Mr Kieron		Student Non-Member (Early Bird Rate)
Ward, Dr Simon	Ian R Brown Associates Ltd	GSNZ Member Full registration (Early Bird Rate)
Warnke, Mr Fynn	The University of Auckland	Student Member (Early Bird Rate)
Warren-Smith, Dr Emily	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Watson, Dr Sally	NIWA	Early Career Researcher (Early Bird Rate)
Wavelet, Miss Emeline	University of Otago	Student Member (Early Bird Rate)
Werner, Dr Cindy	The University of Auckland	GSNZ Member Full registration (Early Bird Rate)
White, James	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Whitehead, Dr Melody	Massey University	GSNZ Member Full registration (Early Bird Rate)
Williams, Charles	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Williams, Dr Helen	Auckland University of Technology	GSNZ Member Full registration (Early Bird Rate)
Williams, Dr Jack	University of Otago	Early Career Researcher (Early Bird Rate)
Williams, Miss Codee-Leigh	Victoria University of Wellington	Student Member (Early Bird Rate)
Wilson, Dr Grant	NEMA	Day Registration - Wednesday 15 November
Wilson, Miss Alexis	Victoria University of Wellington	Student Non-Member (Standard Rate)
Wilson, Professor Gary	GNS Science Te Pū Ao	Complimentary Sponsor
Wilson-Rooy, Mereana	GNS Science Te Pū Ao	Non-Member Full registration (Standard Rate)
Woelz, Dr Susi	NIWA	GSNZ Member Full registration (Early Bird Rate)

Wolter, Dr Andrea	GNS Science Te Pū Ao	GSNZ Member Full registration (Early Bird Rate)
Wood, Dr Matthew	Victoria University of Wellington	Non-Member Full registration (Early Bird Rate)
Wood, Dr. Chris	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Wopereis, Mr Paul	Beca Ltd	GSNZ Member Full registration (Early Bird Rate)
Worts, Chris	GNS Science Te Pū Ao	Non-Member Full registration (Early Bird Rate)
Wright, Miss Sarah	Victoria University of Wellington	Student Member (Early Bird Rate)
Wysoczanski, Dr Richard	NIWA	GSNZ Member Full registration (Early Bird Rate)
Xi, Jiayi	Tongji University, China	Student Member (Standard Rate)
Yates, Dr Katherine	University of Canterbury	Early Career Researcher (Standard Rate)
Yates, Mr Edward	University of Canterbury	Student Member (Early Bird Rate)
Yong, Dr Chien Zheng	University of Otago	GSNZ Member Full registration (Early Bird Rate)
Young, Dr Jacob	Victoria University of Wellington	Day Registration - Wednesday 15 November
Zellmer, Professor Georg	Massey University	GSNZ Member Full registration (Early Bird Rate)
Zhu, Dr Chuanbin	University of Canterbury	Non-Member Full registration (Early Bird Rate)

# Appendix C: EarthFest 2023 Event Wrap Report



# EarthFest

A Festival of Earth Science

## 2023

## Wrap Report

## Summary

EarthFest 2023 was the first outreach event of its kind to be attempted in association with the Geoscience Society of New Zealand Annual Conference. As a Festival of Earth Science, it aimed to promote Earth science concepts and careers through a range of interactive exhibits, eye-catching displays and exciting demonstrations. With a particular focus on activities for tamariki (children), rangatahi (young people), and their whānau (families), the goal was to help people engage with STEM (Science, Technology, Engineering and Math), build connections, and experience the wonder and excitement of Earth systems and processes and the tools we use to study them.

EarthFest 2023 comprised 28 exhibits, 3 demonstrations, 3 panel discussions and 4 field trip locations, presented by 106 participants representing 23 different organisations. Estimates based on partial door counts suggest 2000+ members of the public came to the festival. Feedback from participants and attendees was overwhelmingly positive, with some useful lessons and suggestions for future events.

EarthFest 2023 received \$16,379.40 in sponsorship (in total) from 13 sponsoring organisations. The event cost \$15,953.94 to run. Based on the success of the event it is likely to be held again, so the \$425.46 excess is being held by the GSNZ to be contributed to EarthFest 2024.

It took ~329 hours of the lead organiser's time to plan, run and wrap-up the festival, with countless more hours committed by numerous others. Future EarthFests could be organised with much less time commitment if their organisers are happy to reuse the materials developed for this inaugural event. In addition, this report contains several lessons learned and recommendations that could be useful for planning future events of this kind.

We are extremely grateful to all those who contributed to EarthFest 2023, including all sponsors and participants. We are especially grateful to the many people who volunteered their time and support to help plan, pay for and deliver the event. Their generosity was instrumental in making EarthFest 2023 a success.

Figure 1: EarthFest 2023 Summary Infographic



# Acknowledgements

An enormous **THANK YOU** to:

The 2023 GSNZ Conference Local Organising Committee for allowing EarthFest to be a part of their conference.

Hutt City Council for their overwhelming enthusiasm and support for the festival and providing the venue for free.

Ali Howard and the team at Conference and Events Ltd., for all their support and recommendations organising EarthFest, and for handling invoicing and reimbursements.

Stacy Lio and the staff at the Walter Nash Events Centre for providing such an excellent and welcoming venue.

Mike Hannah, Kees Jansen and their cohort of student volunteers from Te Herenga Waka Victoria University of Wellington, for their time and late-night commitment to setting up the festival space for exhibitors.

Ali Howard, Kat Holt and all the other volunteers who helped run the festival on the day.

Everyone who was a member of an exhibit teams, demonstration, panel discussion and/or was a field trip presenter during the festival.

Everyone who attended EarthFest! You made the room buzz!

GNS Science's CASCADE project, and QuakeCORE, for supporting organisation of EarthFest.

Anna Cardno for help drafting radio advertising scripts.

All the equipment providers and advertising agencies that were part of the event, especially those that offered discounts for non-ticketed events!

To all the EarthFest2023 sponsors whose financial commitment made the event possible:





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## Glossary

AR	-	Augmented Reality
C&E	-	Conference and Events Ltd.
CRI	-	Crown Research Institute
EarthFest -		EarthFest – Festival of Earth Science
ELT	-	Executive Leadership Team
GeOID	-	Geoeducation, Outreach and International Development SIG
GIS	-	Geographic Information Systems
GNS	-	Te Pū Ao   GNS Science
GSNZ	-	Geoscience Society of New Zealand
HCC	-	Hutt City Council
JCDR	-	Joint Centre for Disaster Research
LOC	-	Local Organising Committee
NIWA	-	Taihoro Nukurangi   National Institute of Water and Atmospheric Research
SIG	-	Special Interest Group
STEM/STEAM	-	Science, Technology, Engineering, (Art) and Mathematics
VR	-	Virtual Reality
VUW	-	Te Herenga Waka   Victoria University of Wellington

# 1 Purpose

The aim of the inaugural EarthFest – Festival of Earth Science was to be an unprecedented public showcase of the science and technology used to study our dynamic planet. Through interactive activities, displays and demonstrations, we wanted to share the excitement of understanding more about the Earth, and discovering something new, with members of the public.

With a particular focus on activities for tamariki (children), rangatahi (young people), and their whānau (families), our goal was to help young people engage with STEM (Science, Technology, Engineering and Math) and build connections between Earth science and their everyday lives, to ignite interest and (hopefully) inspire future careers in the Earth sciences.

## 2 Affiliation

EarthFest – Festival of Earth Science 2023 was held in association with the **Geoscience Society of New Zealand (GSNZ) Annual Conference 2023**. This conference was co-hosted by Te Herenga Waka | Victoria University of Wellington (VUW) and Taihoro Nukurangi | National Institute of Water and Atmospheric Research (NIWA) and held at the VUW campus in Wellington from Monday 13 – Thursday 16 November 2023.

## 3 Organisation

Organisation of the festival was primarily carried out by GSNZ Secretary and Geoeducation, Outreach and International Development Special Interest Group (GeOID SIG) convenor Jenny Stein, with support from the 2023 GSNZ Conference organising committee and Conference and Events Ltd (C&E).

### 3.1 Concept Development

EarthFest as a concept was **inspired by VolcanoFest**, a volcanology-focussed public outreach and engagement event held in association with the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) Scientific Assembly held in Rotorua, New Zealand, 30 January – 3 February 2023. EarthFest wanted to take the VolcanoFest concept developed by Ben Kennedy and colleagues and expand it to include all aspects of Earth science.

The planning and execution of EarthFest was **modelled on the organiser's experience of being a past exhibitor at the Tauranga STEM Festival**, a multi-award winning community event, showcasing 50+ exhibitors from across Aotearoa New Zealand with the aim of promoting Science, Technology, Engineering and Mathematics (STEM) subjects and opportunities to the public. Though we didn't seek to match Tauranga STEM Fest in terms of

scale, we did try to emulate the festival atmosphere and exhibitor experience on the day, with a few of our own ideas thrown in.

*For more information on these festivals see:*

- *VolcanoFest event website:* <https://confer.eventsair.com/iavcei2023/volcanofest>
- *VolcanoFest press coverage:* <https://www.nzherald.co.nz/rotorua-daily-post/news/volcanofest-brings-explosion-of-volcano-learning-and-fun-to-rotorua/KWABQNHAJCHPCUNSV6EPIYRU/>
- *STEMFest website:* <https://www.tauranqastemfestival.co.nz/>

## 3.2 Programme

EarthFest 2023 had two components:

- **Main event:** a 1-day festival consisting of all-day, interactive exhibits, accompanied by multiple demonstrations and panel discussions scheduled throughout the day
- **Additional event:** a 1-day semi-independent public field trip where we designated places and times where people could meet to hear kōrero about the local geology and landscape.

## 3.3 Dates and Timing

The EarthFest festival was held on **Saturday 11 November**, with the public field trip held the following day, Sunday 12 November. We hoped holding EarthFest on a weekend would maximise the chances of parents and caregivers bringing their children to the festival where they would be able to see and share in their children's excitement about science. We hoped this would make families more likely to be supportive of their children pursuing interests in science and so more likely that those interests would last. We also knew that holding the event on a weekend would take the logistical burden off schools to bring students along (but still wanted to ensure we advertised through school networks to maximise the number of students who came).

We decided to hold EarthFest on a **weekend adjacent to the GSNZ Annual Conference** as this was likely to maximise the amount of crossover between the festival and the conference. We hoped that keeping the events close together would make travel logistics easier for participants from out of town who wished to attend both events, whilst also maximising the chances of participants in one of the events also participating in the others (conference presenters making the most of an opportunity to present an exhibit at EarthFest, and vice versa). This is known to have worked for at least two exhibit teams.

We chose to hold the festival on the **Saturday prior to the GSNZ Annual Conference** as we wanted to run the event while exhibitors were fresh and not tired out from a week of conferencing. This also enabled most festival participants to have a day's rest before the conference started or they returned to their normal working week.

### 3.4 Venue

EarthFest 2023 was held at the **Walter Nash Centre**, 22/26 Taine Street, Taitā, Lower Hutt 5011, on Courts 1 & 2. Venue costs were covered by the venue owner, Hutt City Council.

### 3.5 Branding

One learning from the Tauranga STEM Festival, and also from the Dunedin International Science Festival (<https://scifest.org.nz/>), was **the importance of consistent and visually engaging branding to help promote the festival** as something worth participating in and attending.

Consequently we developed our own branding which you can see included in this report.

### 3.6 Equipment & Materials

All festival exhibits and demonstrations were required to register via a Google Form so that we could collect information well in advance about how much space and equipment they needed (see Section 5.2).

**Standard exhibit booth spaces** were offered as 3.0 x 3.5m, with larger booths available upon request. Each booth came with:

- 1x trestle table
- 1x tablecloth (black)
- 2x chairs
- access to power (if required)

Additional tables and chairs, as well as poster boards, were provided upon request, although poster boards were provided on a strict as-needed basis due to their expense.

In addition to the above, we also sourced and hired additional tables, and a microphone, speaker and sound desk package (Package 5 from Audio Workshop; <https://www.audioworkshop.co.nz/hire-packages>) so that we could ensure panellist presentations and audience questions could be heard over the background noise of the

festival during panel discussions. We also borrowed a laptop, screen and projector from festival participants' workplaces to enable panelists to present slides, and to project a live feed from Scott Base, Antarctica for one of the panel discussions. While the festival venue had its own public WiFi, to ensure a quality feed for this panel, we arranged for the panel organiser to provide their own dedicated hotspot for this feed.

## 3.7 Health & Safety

### 3.7.1 Code of Conduct

To ensure EarthFest was a safe and enjoyable event for all, an informal Code of Conduct was communicated to all festival participants and a modified version published on the festival website for festival attendees:

#### ***EarthFest Code of Conduct - Participants***

##### **DO:**

- Be respectful of all people and equipment.
- Follow the instructions of all venue staff and festival volunteers.
- Take your rubbish home with you.
- Take responsibility for your own belongings.

##### **DON'T:**

- Spread germs. If you are feeling unwell, please stay home. Bring or use the hand sanitiser provided.
- Run, or barge past other people. There's plenty of time and space for all.
- Smoke or drink. EarthFest is a smoke-free and alcohol-free event.

#### ***EarthFest Code of Conduct – Attendees (Public)***

##### **DO:**

- Be respectful of all people and equipment.
- Follow the instructions of all venue staff, festival volunteers, exhibitors and demonstrators.
- Take your rubbish home with you or place it in the bins provided.
- Bring your family and friends...and a camera!

##### **DON'T:**

- Spread germs. If you are feeling unwell, please stay home.

- Hog the exhibits. There's plenty of things to see and do so please make sure others get a turn.
- Run, or barge past other people. There's plenty of time and space for all.
- Smoke or drink. EarthFest is a smoke-free and alcohol-free event.

### 3.7.2 Security

In consultation with the Walter Nash Centre (festival venue) staff, the hiring of additional security was deemed unnecessary for this event.

### 3.7.3 Risk Assessment

To comply with venue requirements and also conduct EarthFest responsibly, a detailed risk assessment form template (and pre-filled example) was emailed to all exhibit team leaders for completion prior to the festival. This was seen as overkill by some team leaders, while others took it in their stride. The returned forms were used to compile an overall risk assessment for the festival as a whole that was made available to the venue and kept on file by festival organisers.

### 3.7.4 Incident Reporting

All festival participants were provided with Information Packs with detailed festival information, including instructions to report any and all incidents or suspicious activity to festival organisers. Festival organisers were involved in one minor and witnessed one further minor incident, in which IT equipment sustained minor damage. These incidents resulted in no injuries to people but were documented in separate festival incident reports. No other incidents were observed or reported.

## 3.8 Insurance

As a GSNZ-organised event EarthFest 2023 was covered by GSNZ's comprehensive insurance policy (for more information email [treasurer@gsnz.org.nz](mailto:treasurer@gsnz.org.nz)).

Fortunately, the festival ran smoothly, and nothing needed to be claimed under this policy.

## 4 Budget

As this was the first event of this kind there were no prior events that could be used for reference for budgeting purposes. Therefore, an adaptable budget was prepared, built around the size and capacity of the festival venue. Multiple quotes were gathered for everything that would be required, and the most cost-effective quotes used to determine the minimum cost of running the event at a range of scales.

The final budget for EarthFest 2023 is presented in Table 1, showing final projected and actual expenses, along with things that were not purchased (in case their quoted amounts are useful for future reference).



Table 1: EarthFest 2023 Budget

Item	Details	INCLUDE?	Unit Cost	Units	Inc. GST?	FORECAST Total	ACTUAL Total		Notes
							red = more	green = less	
Venue costs									
Venue hire	Walter Nash Centre	Y	\$1,100.00	1	Y	\$ 1,100.00	\$ 1,100.00	\$ 1,100.00	covered by Hutt City Council
					Subtotal:	\$ 1,100.00	\$ 1,100.00	\$ 1,100.00	Paid by HCC.
Equipment Hire									
Chairs		Y	\$0.00	80	Y	\$ -	\$ -	\$ -	free with venue
					Subtotal:	\$ -	\$ -	\$ -	
Trestle Tables	HireMaster; 1.8m x 0.76m, plastic	Y	\$12.98	50	N	\$ 746.35	\$ 746.35	\$ 746.35	
Table Cloths	HireMaster; 183 x 205cm, black	Y	\$12.50	50	N	\$ 718.75	\$ 718.75	\$ 718.75	
	HireMaster; delivery/pick-up	Y	\$140.00	1	N	\$ 161.00	\$ 161.00	\$ 161.00	
					Subtotal:	\$ 1,626.10	\$ 1,626.10	\$ 1,626.10	Invoice paid by C&E
Poster Boards	Exhibition Hire; 45x posterboards + feet	Y	\$58.00	45	N	\$ 3,001.50	\$ 3,001.50	\$ 3,001.50	
	Exhibition Hire; posterboard delivery/pick-up	Y	\$65.00	2	N	\$ 149.50	\$ 149.50	\$ 149.50	
	Exhibition Hire; posterboard admin fee	Y	\$5.00	1	N	\$ 5.75	\$ 5.75	\$ 5.75	
					Subtotal:	\$ 3,156.75	\$ 3,156.75	\$ 3,156.75	Invoice paid by C&E
Poster Boards	Exhibition Hire; 15x posterboards + feet	Y	\$35.00	15	N	\$ 603.75	\$ 603.75	\$ 603.75	
	Exhibition Hire; posterboard delivery/pick-up	Y	\$65.00	1	N	\$ 74.75	\$ 74.75	\$ 74.75	
	Exhibition Hire; posterboard admin fee	Y	\$5.00	1	N	\$ 5.75	\$ 5.75	\$ 5.75	
					Subtotal:	\$ 684.25	\$ 684.25	\$ 684.25	Invoice paid by C&E
Speaker & wireless mic package	Audio Workshop; 2x speaker + 3x wireless mic	Y	\$320.00	1	N	\$ 368.00	\$ 368.00	\$ 368.00	
Power cables and boxes + installation	Grouse Lighting Aotearoa (venue recommended)	Y	\$2,415.00	1	Y	\$ 2,415.00	\$ 2,850.85	\$ 2,850.85	Paid by Jenny; reimbursed by C&E Second tech required.
					Subtotal:	\$ 2,415.00	\$ 2,850.85	\$ 2,850.85	Invoice paid by C&E
Catering									
Coffee-cart		Y	\$60.00	1	Y	\$ -	\$ -	\$ -	Free-but-ot-needed; Venue-has-caffe.
1 free coffee per exhibitor (?)	(Tab opened with the venue cafe on the day)	Y	\$5.50	114	Y	\$ 627.00	\$ 459.00	\$ 459.00	
					Subtotal:	\$ 627.00	\$ 459.00	\$ 459.00	Paid by Jenny; reimbursed by C&E
Boxed lunch for exhibitors & volunteers	92x exhibitor/volunteer/panelist etc lunches	Y	\$15.50	92	N	\$ 1,639.90	\$ 1,639.90	\$ 1,639.90	
Delivery fee	Lunch delivery	Y	\$20.00	1	N	\$ 23.00	\$ 23.00	\$ 23.00	
					Subtotal:	\$ 1,662.90	\$ 1,662.90	\$ 1,662.90	Invoice paid by C&E
General Consumables									
Exhibitor/helper ID cards	114; 90x exhibitor, 15x volunteer, 1x organiser, 8x panelist	Y	\$144.00	1	N	\$ 165.60	\$ 165.60	\$ 165.60	
					Subtotal:	\$ 165.60	\$ 165.60	\$ 165.60	Paid by Jenny; reimbursed by C&E
Lanyards	Borrowed of RINC-free!	Y		80	Y	\$ -	\$ -	\$ -	Borrowed off RINC. Free!
Materials	Tape, tools, cleaning gear etc	Y	\$0.00	1	Y	\$ -	\$ -	\$ -	
Materials	Velcro dots + extra lanyards	Y	\$0.00	1	Y	\$ -	\$ -	\$ -	
					Subtotal:	\$ -	\$ -	\$ -	
					Subtotal:	\$ -	\$ 152.50	\$ 152.50	Paid by Jenny; reimbursed by C&E



Item	Details	INCLUDE?	Unit Cost	Units	Inc. GST?	FORECAST Total	ACTUAL Total	Notes
Promotion								
Radio - Mai (20k youth listeners)	Mediaworks (20 primetime 6am - 8pm; 30 sec)	Y	\$360.00	1	N	\$ 414.00	\$ 414.00	
Radio - Mai (20k youth listeners)	Mediaworks (20 anytime; 30 sec)	N	\$110.00	±	N	\$ 126.50	\$ -	Did not purchase; not enough money
Radio - The Edge (41k 18-39 yrs)	Mediaworks (20 primetime 6am - 8pm; 30 sec)	Y	\$790.00	1	N	\$ 908.50	\$ 908.50	
Radio - The Edge (41k 18-39 yrs)	Mediaworks (20 anytime; 30 sec)	N	\$280.00	±	N	\$ 322.00	\$ -	Did not purchase; not enough money
Radio - MoreFM (30k females 30-49 & 30k males 30-49)	Mediaworks (20 primetime 6am - 8pm; 30 sec)	Y	\$640.00	1	N	\$ 736.00	\$ 736.00	
Radio - MoreFM (30k females 30-49 & 30k males 30-49)	Mediaworks (20 anytime; 30 sec)	N	\$190.00	±	N	\$ 218.50	\$ -	Did not purchase; not enough money
Radio - The Breeze (52k females 35-59)	Mediaworks (20 primetime 6am - 8pm; 30 sec)	N	\$1,180.00	±	N	\$ 1,357.00	\$ -	Did not purchase; not enough money
Radio - The Breeze (52k females 35-59)	Mediaworks (20 anytime; 30 sec)	N	\$380.00	±	N	\$ 437.00	\$ -	Did not purchase; not enough money
					Subtotal:	\$ 4,519.50	\$ 2,058.50	Invoice paid by C&E
Banners & flags	BannerBuzz; 1x blade flag printing	Y	\$138.30	1	(N)	\$ 138.30	\$ 138.30	
	BannerBuzz; 1x blade flag hardware	Y	\$175.57	1	(N)	\$ 175.57	\$ 175.57	
	BannerBuzz; 1x pull-up banner printing	Y	\$34.33	1	(N)	\$ 34.33	\$ 34.33	
	BannerBuzz; 1x pull-up banner hardware	Y	\$36.25	1	(N)	\$ 36.25	\$ 36.25	
	Discount	Y	-\$84.58	1	(N)	\$ -	\$ 84.58	
	Tax	Y	\$62.28	1	(N)	\$ 62.28	\$ 62.28	
	Shipping	Y	\$115.34	1	Y	\$ 115.34	\$ 115.34	
					Subtotal:	\$ 477.49	\$ 477.49	Paid by Jenny; reimbursed by C&E
Digital billboards	Jolly Billboards; 2x Lower Hutt & 1x Wellington	Y	\$250.00	3	N	\$ 862.50	\$ 862.50	
					Subtotal:	\$ 862.50	\$ 862.50	Invoice paid by C&E
Digital billboards	GeMedia - Upper Hutt	N	\$420.00	4	N	\$ 1,932.00	\$ -	Did not purchase; not enough money
	GeMedia - Upload fee	N	\$350.00	±	N	\$ 402.50	\$ -	Did not purchase; not enough money
					Subtotal:	\$ 2,334.50	\$ -	
Poster-Billboards	Phantom	N	\$1,000.00	±	N	\$ 1,150.00	\$ -	Did not purchase
					Subtotal:	\$ 1,150.00	\$ -	
Website domain	earthfest.nz	Y	\$35.95	1	N	\$ 41.34	\$ 41.34	Purchased for 1 Yr.
Website hosting	<a href="https://secure.myhost.nz/login">https://secure.myhost.nz/login</a>	Y	\$15.00	3	N	\$ 51.75	\$ 51.75	Purchased monthly, recurring.
Website hosting	<a href="https://secure.myhost.nz/login">https://secure.myhost.nz/login</a>	Y	\$180.00	1	N	\$ 207.00	\$ 207.00	Purchased to hold for next year.
					Subtotal:	\$ 300.09	\$ 300.09	Paid by Jenny; reimbursed by C&E
Facebook advertising	2x 1 week ads (1 for festival, 1 for field trip)	Y	\$29.41	1	Y	\$ 29.41	\$ 29.41	Purchased on Jenny's PayPal
					Subtotal:	\$ 29.41	\$ 29.41	Paid by Jenny; reimbursed by C&E
T-shirts for volunteers/prizes								
shirts		N	\$10.95	20	Y	\$ 219.00	\$ -	Did not purchase; not enough money
supacolor printing		N	\$24.71	20	Y	\$ 494.20	\$ -	Did not purchase; not enough money
transfer printing		N	\$14.96	20	Y	\$ 299.20	\$ -	Did not purchase; not enough money
set-up fee		N	\$69.00	1	Y	\$ 69.00	\$ -	Did not purchase; not enough money
					Subtotal:	\$ 1,081.40	\$ -	
Insurance								
	(covered under GSNZ general policy)							
					TOTAL:	\$22,560.49	\$15,953.94	

## 4.1 Sponsorship

<i>Sponsor</i>	<i>Amount</i>	<i>Inc. GST?</i>	<i>Subtotal</i>
Hutt City Council	\$ 1,100.00	Y	\$ 1,100.00
ECLIPSE (GNS)	\$ 500.00	N	\$ 575.00
Beneath the Waves (GNS)	\$ 500.00	N	\$ 575.00
National Petrology Reference Collection (GNS)	\$ 500.00	N	\$ 575.00
Pluton Mapping (GNS)	\$ 350.00	N	\$ 402.50
JCDR	\$ 2,000.00	N	\$ 2,300.00
Massey University	\$ 1,000.00	N	\$ 1,150.00
Toka Tū Ake EQC	\$ 1,000.00	N	\$ 1,150.00
GeoNet	\$ 2,000.00	N	\$ 2,300.00
Winstone Aggregates	\$ 2,121.90	Y	\$ 2,121.90
Eagle Technology	\$ 2,000.00	N	\$ 2,300.00
Beca	\$ 1,200.00	N	\$ 1,380.00
Riley	\$ 450.00	Y	\$ 450.00
<b>TOTAL:</b>			<b>\$ 16,379.40</b>

## 4.2 Reconciliation

EarthFest 2023 attracted \$16,379.40 in sponsorship. The event cost \$15,953.94 to run. The \$425.46 excess is being held by the GSNZ, to be contributed to EarthFest 2024.

## 5 Recruitment & Promotion

### 5.1 Sponsors

As EarthFest had no track record to recommend it, most sponsorship EarthFest received was the result of in-person and direct email approaches to specific people with potential sponsor organisations and projects, and recommended contacts therein. Sponsorship of EarthFest was also included as an option in the 2023 GSNZ Conference sponsorship prospectus and this seems to have contributed to receiving sponsorship from one or two sponsors.

The standard sponsorship package offered to all sponsors was:

- an exhibit booth at the festival
- inclusion of sponsor logos on the festival website and all festival branding
- verbal acknowledgement of sponsors at the festival and at the 2023 GSNZ conference

Once sponsorship details were confirmed, payment information was forwarded to C&E for invoicing.

### 5.2 Exhibitors & Demonstrators

A call for exhibits/demonstrations was included in the same emails and social media posts as the calls for EarthFest sponsorship, and prospective exhibitors/demonstrators registered via Google Form.

### 5.3 Volunteer Helpers

Volunteer helpers for the festival were sought primarily through normal conference volunteer channels. Student volunteers were offered complimentary conference registrations for helping out with the GSNZ conference, and additional complimentary dinner tickets for helping out at EarthFest. Several other volunteers came forward to help, with several simply turning up on the day.

Mike Hannah of Victoria University of Wellington was particularly instrumental in assembling a team of volunteers lead by Alexey Ippolitov who made setting up tables and posterboards etc the night before the festival, and packing them afterwards, a breeze. That said, set-up still took from 10pm until 12am (as the courts were not accessible until 10pm) and we are especially grateful for their help. A tray of donuts was poor compensation for their awesome efforts!!

## 5.4 Field Trip Presenters

The field trip was planned in consultation with Mike Hannah of Te Herenga Waka | Victoria University of Wellington who was very keen to help run the trip. Recruiting field trip presenters proved difficult, so we are especially grateful to Mike and to Nicola Litchfield of GNS Science for giving up part of their day to present to interested members of the public.

## 5.5 Public Promotion

Public promotion of EarthFest 2023 was conducted on a range of fronts:

- fliers (digital pdf with a QR code to the website; see Figure 2)
- social media (Facebook and LinkedIn, including a Facebook event page and boosted Facebook ads)
- other online event pages:
  - <https://www.eventfinda.co.nz/whatson/events/wellington/today>
  - <https://wellington.govt.nz/news-and-events/event-calendar>
  - <https://www.wellingtonnz.com/visit/events>
  - <https://humanitix.com/nz>
  - <https://concreteplayground.com/wellington/events>
- a dedicated website <https://earthfest.nz>
- digital billboards in the Hutt Valley and Wellington (Jolly Billboards; see Figure 3)
- a radio ad campaign (Mediaworks, multiple stations)
- a banner flag sign outside the venue on the day

Traffic to the website remained low until the week of the festival when website visits spiked at up to 1,815 impressions/day (the Tuesday before the festival) and up to 60 clicks (on the day of the festival).

*Note: The EarthFest website is hosted by MyHost and both the domain name registration and website hosting were purchased for 1-year, paid for out of the EarthFest 2023 budget. This is to keep the website live to help promote future events. It can be updated by contacting [geoid@qsnsz.org.nz](mailto:geoid@qsnsz.org.nz) for site login information.*

Figure 2: EarthFest 2023 example flier



# EarthFest 2023

## A Festival of Earth Science

**What will you discover...?!**

**It's FREE!**

**Saturday 11 November**  
**9am - 3pm**  
**Walter Nash Centre**  
**Taitā, Lower Hutt**

**Geoscience Society of New Zealand**  
**WINSTONE AGGREGATES**  
**GeoNet**  
**GNS SCIENCE**  
**EAGLE TECHNOLOGY**  
**BENEATH the WAVES**  
**Toka Tū Ake EQC**  
**BECA**  
**HUTT CITY**  
**RILEY**  
**QuakeCoRE**  
**JOINT CENTRE FOR DISASTER RESEARCH**  
**CRISISLab**  
**MASSEY UNIVERSITY**



Figure 3: EarthFest 2023 example billboard



**EarthFest**<sup>2023</sup>  
Festival of Earth Science

Saturday 11 November  
Walter Nash Centre  
9am - 3pm

**FREE ENTRY!**

[earthfest.nz](http://earthfest.nz)

Brought to you by:

- Geoscience Society New Zealand
- HUTT CITY TE ANA KAIHANGA
- Winstone
- BECA
- EAGLE
- ONS
- QuintGARD
- MASSEY
- ELAM
- EOC
- BENSON
- RILEY

## 6 Execution

### 6.1 Programme

#### 6.1.1 EarthFest Festival

##### **Saturday 11 November, 2023 at the Walter Nash Centre (Courts 1 & 2)**

**6am** – organisers met the electrician at the venue to install cabling, set up sound system etc.

**7am – 9am** – exhibitor pack-in

**9am** – EarthFest festival opened to the public

**9am – 9.50am** – quiet time for sensory-sensitive attendees (no announcements)

**9.30am** – Mentos Volcano demonstration

**9.55am** – *Announcement welcoming everyone to the festival and thanking sponsors*

**10am** – Panel Discussion: Natural Hazards & Us: What, Where and How to prepare

**11am** – Quake Point demonstration

**11.30am** – Mentos Volcano demonstration

**12pm** - Panel Discussion: Live chat with Scott Base, Antarctica

**12.30pm** – Drones Overhead demonstration

**1pm** – Panel Discussion: Earth Science for a Safe and Sustainable Future

**1.30pm** – Mentos Volcano demonstration

**2pm** – Quake Point demonstration

**2.30pm** – Drones Overhead demonstration

**2.45pm** – *Announcement warning of the end of the festival at 3pm*

**3pm** – *Announcement closing festival, thanking sponsors and participants.*

**3pm – 4pm** – exhibitor pack-out

**4pm - 5pm** – venue reset (cable collection by electrician, storage of poster boards & tables etc, removal of carpet)

**5pm** – venue clear (so basketball games could start)

#### 6.1.2 Field Trip

##### **Sunday 12 November, 2023 around Greater Wellington**

**9am** – Red Rocks, presented by Jenny Stein (GSNZ)

**11am** – Princess Bay Fossils, presented by Mike Hannah (Te Herenga Waka Victoria University of Wellington)

**1pm** – Mt Victoria Lookout, presented by Mike Hannah (Te Herenga Waka Victoria University of Wellington)

**3pm** – Harcourt Park, presented by Nicola Litchfield (GNS Science)



### *6.1.3 Post-Festival*

Following the festival a short presentation was put together to present EarthFest at the opening ceremony of the GSNZ conference, to acknowledge all festival sponsors and participants and promote the event as a good outreach opportunity for the New Zealand geoscience community.

In the week after the festival an email of thanks was sent to participants, along with a link to a Google Form where they could provide feedback on the EarthFest 2023 (see Section 8). A reminder email about the feedback form was sent out a few weeks later, and a certificate of thanks sent to sponsors along with some photos they can use for their own communications and promotional purposes.

## 6.2 Participants

The EarthFest 2023 festival was supported by 13 different sponsoring organisations and comprised 27 different exhibits, 3 different demonstrations, and 3 different panel discussions, all made possible by ~106 festival participants.

There were also 3 presenters over 4 stops on the following day's field trip.

### 6.2.1 Sponsors

<b>Organisation</b>	<b>Contact Person</b>
Beca	Fernanda Azuma
Beneath the Waves (GNS Science)	Craig Miller
Eagle Technology	Catherine O'Shaughnessy
ECLIPSE - Taupō Supervolcano (GNS Science)	Graham Leonard
GeoNet	Catherine Ross
Hutt City Council	Sophie Smith
Joint Centre for Disaster Research (JCDR), QuakeCORE & CRISiSLab	David Johnston
Massey University	Kat Holt
National Petrology Reference Collection (GNS Science)	Matt Sagar
Pluton Mapping (GNS Science)	Rose Turnbull
Toka Tū Ake EQC	Janette Merlo
Winstone Aggregates	Sam Shepherd

### 6.2.2 Exhibitors

<b>Organisation (Team)</b>	<b>Exhibit</b>	<b>Description For Website</b>
AusIMM (Lauren Farmer Ayrton Hamilton)	Gold Panning	The Australian Institute of Mining and Metallurgy (AusIMM) invites you to uncover the art of gold panning as you immerse yourself in our display and try your hand at discovering nature's precious treasures. Explore the world of minerals and mining while experiencing the thrill of finding precious minerals. Gain insights into the techniques and skills involved in this ancient practice and explore potential careers in the mining industry.
Beca (Bernice Herd +1)	Let's Get Geotechnical	Come on an interactive journey into the exciting world of engineering and geotechnical geology with Beca. Discover how our skilled engineers piece together underground formations using boreholes to correlate rocks and create a vivid picture of what's hidden underground. Bring your curious kids along for some hands on learning with playdoh and let's spark their interest in the wonders of science while having fun exploring what lies beneath our feet.

Eagle Technology (Catherine O'Shaugnessy Claire Thurlow Alice Mill)	Eagle Technology GIS	Geographic Information Systems (GIS) tell us where and what things are in amazing detail. Come and find out about our GIS in Schools programme, and how can you successfully navigate current trends in GIS development, from 3D analytics to artificial intelligence (AI), and weave them into your own career journey!
GeoNet (Sara Horne Beth McNamara Holly Harvey-Wishart)	Make a Quake	Come and make an earthquake with the team from GeoNet! See how big a quake you can make and learn how we keep an eye on New Zealand's earthquake, volcano and tsunami hazards. Budding artists be sure to enter our 'draw a volcano' competition!
Girls* on Ice Aotearoa (Julia Martin Abigail Bender)	Girls* on Ice	Girls* On Ice Aotearoa aim to inspire passion, participation and empowerment for girls* in science, art and exploration through tuition fee-free expeditions to New Zealand's wild mountains and glaciers. Come and see what you could look like standing on a snowy mountain or glacier!
GNS Science (Mus Hertoghs Margaret Norris Taylor Ferrick Jacob Leath Hayden Young Leigh Fleming Pene Gair)	Rafter Radiocarbon Lab	Did you know that measuring radiocarbon enables us to find out the age of materials? Or that it can track the changing amounts of greenhouse gases in the atmosphere? If you're interested in climate change, join the Rafter Radiocarbon Lab to find out how!
GNS Science (Andrew Boyes)	Drones for Science!	Drones enable us to see the world in new and exciting ways. From mapping landslides to sampling volcanoes, drones are an awesome tool for doing science. Come and see how we turn drone photos into 3D models of changing landscapes.
GNS Science (Henry Gard Sonja Bermundez)	Find A Fossil	Uncover the mysteries of an ancient seabed that is 23-25 million years old! Dig a real fossil out of our limestone rock and discover what your find is with the help of our paleontologists (fossil experts). What can it tell us about past environments?
GNS Science (Mark Lawrence)	What's that rock?	What's makes up a rock, mineral, fossil or sediment? Bring along a rock of your own so we can zap it with our analyser and tell you exactly what it's made of. Works for rocks, minerals, fossils, and dry sediment or soil (and won't damage them).
GNS Science (Matt Sagar Kyle Bland Kevin Faure)	Rocks of Te-Riu-a-Maui / Zealandia	Aotearoa New Zealand is part of a much larger, mostly submerged landmass called Te-Riu-a-Maui / Zealandia. Discover rocks from across the continent and learn what they can tell us about our approx. 500-million-year geological history. All display rocks are from the National Petrology Reference Collection and can be touched/handled. Plus, bring your own rock for our geologists to identify.

GNS Science (Jenny Barretto Jess Hillman Miguel Barretto Sophie Pearson-Grant)	AR Sandbox	What do you get when you cross a humble sandbox with cutting edge augmented reality (AR) technology? The most immersive and exciting geoscience lesson ever! The AR sandbox is a hands-on learning tool that gives tamariki the chance to explore geoscience by shaping and re-shaping landforms in their very own landscape.
GNS Science (Fred Davey Collin Quarrie Julia Wilson-Davey Ben Wilson-Davey)	Historic Instruments	Have you ever wondered how, before modern technology, scientists knew where an earthquake occurred and how strong? How did they calibrate magnetic compasses or search for subsurface resources? Come along and see the real geophysical instruments used in New Zealand from 1863-1970.
GNS Science (Martin Tetard)	A Big World of Tiny Fossils	Come and explore the world of microscopic plankton fossils. These tiny organisms, often considered "art from the ocean", will amaze you with their beautiful complexity. Marvel at our 3D-printed models, then peer down the microscope to see the real thing! Find out what these microfossils can tell us about the Earth's ancient past.
House of Science (HoS) (Richard O'Sullivan Jane Hoggard Cate Shave)	House of Science	Calling all teachers and students! Come and try out the activities inside the House of Science's Earthquakes, Volcanoes and Soil Science kits for schools. All kits are fully bilingual in English and Te Reo, with learning objectives aligned to the NZ Curriculum.
Massey University – CRISiSLab (Marion Tan Alicia Cui +7)	Let's Make Waves	Get ready to make waves with the CRISiSLab interactive water tank! You can create small or big waves and observe their impact in real-time, all while learning about the fascinating science and technology behind tsunami detection. Step up to the tank and watch the sensors provide live readings of the waves you make.
Mineral Club of Hutt Valley and Wellington (Nigel Robinson +2)	Rock & Mineral Club	Come and meet members of the Mineral Club of Hutt Valley and Wellington and see some of their favourite specimens. Find out more about the various activities both adult and "Geokids" members get up to. Why not bring along your favourite rock to show too?
New Zealand Antarctic Society (Natalie Robinson +2)	Experience Antarctica	Come and chat with active Antarctic scientists researching everything from the bottom of the ocean to the top of the atmosphere, all from the South Pole! Ask them your questions, try on some gear, and imagine staying down on the ice in our polar tent...brrr.
NIWA (Mia Blythe Ryan Willoughby Jane Halliday Scott Nodder Sam Davidson)	Water Worlds	From the deepest oceans to the highest skies, and all the coastlines, estuaries, rivers and lakes in between, dive into science with the team from NIWA. Experience Antarctica through Virtual Reality, discover kākahi in the touch tank, play the flood game, and find out what creep crawlies live in your local rivers and streams.
QuakeCORE (David Johnston Brandy Kasuni)	Quake-Safe with QuakeCORE	Why do some buildings get damaged in an earthquake and others not? What can we do to help protect ourselves from harm when the ground rumbles? Come and explore how

Lukas Manomita)		to make buildings and communities safer from the impacts of earthquakes.
Seequent - Making Geology Visible (Michael Stewart Vicki Carlyon)	Making Geology Visible	Just out! Visible Geology is a free digital tool built to explore and discover the earth's processes and revolutionize how geological concepts are taught to students. Meanwhile, Mixed Reality Visualisation bring the subsurface to life with interactive visualisation of real 3D geological models using HoloLens mixed reality goggles. Come try it!
Te Herenga Waka - Victoria University of Wellington (Matthew Wood Jacob Young Nadia Pantidi)	Virtual Reality Rocks!	Virtual reality (VR) is changing the way we teach Earth science by enabling students to study the Earth no matter the weather, and see data from a whole new perspective. Come and explore some awesome 3D environments and even go on a virtual field trip!
Te Herenga Waka - Victoria University of Wellington (Alexis Watts)	Ask About Study	Come ask questions to the knowledgeable team from the School of Geography, Environment and Earth Sciences at Te Herenga Waka - Victoria University of Wellington. They can tell you all about how you could study geography or earth sciences at university, what jobs might be available for you, and answer any general questions you may have about uni life.
Toka Tū Ake EQC (Janette Merlo Hamish Armstrong Natalie Balfour Tahbita Bushell Shyra Alladeen)	Let's Get Ready!	Let's get ready before disaster strikes! Gather emergency items before a storm, get to high ground before a tsunami strikes, and secure items in your home before an earthquake. Put your skills and knowledge to the test as you race against the clock in our fun preparation game. Will you finish all the levels before time is up? There's only one way to find out...
University of Canterbury (Ben Kennedy Rae Sanchez Amilea Sork Kristen Lewis)	VolcanoFest	Come and play volcano card and computer and games, watch explosions and enjoy colouring your own volcano. Plus, talk to us about our free teacher PD online courses and links to curriculum-aligned volcano and geothermal teaching materials.
University of Otago (Sophie Briggs Faye Nelson Bryson Malmberg)	Rocks for Tots	Let your 2-6 year-olds' curiosity ignite as they make their own earthquake, explore our submerged continent, and use magnetism to tell rocks from chocolate pebbles. Tons of fun for all ages, and perfect for budding rock hounds and explorers!
Wellington Astronomical Society & Fireballs.nz (Andrew Fuller Antony Gomez Jeremy)	Space Rocks	Ever wondered what meteors can tell us about the solar system? Or if there's a way to look at the sun without hurting your eyes? Discover the sun, meteors and more with Fireballs Aotearoa's meteor camera network and the Wellington Astronomical Society's solarscopes.
Winstone Aggregates (Tim Evans Tim Evans Jacqui Rose)	Cool Quarries	Where does all the rock we use to build roads come from? What kind of rocks can you use? What size do the pieces need to be?? How do we make them all the same size?! Discover the quarrying process with the team at Winstone Aggregates and play fun games to win cool prizes!

### 6.2.3 Demonstrations

<b>Organisation (Leader)</b>	<b>Demonstration</b>	<b>Description For Website</b>
GNS Science (Ery Hughes Cam Asher)	Mentos Volcano	What makes a volcano explode? Come and meet our volcanologists as they use the classic coke-and-mentos experiment to demonstrate what factors influence how explosive a volcanic eruption is, and ultimately create different types of volcanoes. What happens when you change things? And how high will the "lava" go?!
GNS Science (Jenny Stein)	Quake Point	Have you ever wondered how scientists detect and measure earthquakes? Find out by becoming your very own human seismometer! We'll work together to locate a range of "earthquakes" and discover what factors make it easier or harder to detect and measure them. Remember to drop, cover and hold, and if it's long or strong, get gone!
GNS Science (Andrew Boyes)	Drones Overhead	Is it a bird? Is it a plane? No...it's a drone! And it's helping us study our everchanging landscapes. GNS Science uses a range of different drones to map landscapes and even sample active volcanoes! Come and watch a flying demonstration of a photogrammetry drone and hear how the photos it takes are turned into 3D models to study landslides.

### 6.2.4 Panel Discussions

<b>Panel Discussion</b>	<b>Website Description</b>	<b>Panelists (Affiliation)</b>
Natural Hazards & Us: What, Where and How to prepare	Living in the Greater Wellington region we are exposed to a range of natural hazards. Every day, science is improving our understanding of these hazards and informing what we can do to better prepare and protect ourselves in the event of an earthquake, landslide, flood or tsunami. Come along to hear from local hazard and emergency management experts about the hazards we face and what you can do to help keep your family, friends and communities safe from hazardous natural events.	Pooja Kulkarni (Wellington Region Emergency Management Office (WREMO))  Nicola Litchfield (GNS Science)  Lauren Vinnell (JCDR)  Andrea Wolter (GNS Science)
Live chat with Scott Base, Antarctica	Ever wanted to know what it's like to work in Antarctica? Join a live video chat with scientists working at Scott Base, where they are studying everything from the bottom of the ocean to the top of the atmosphere! Discover how Antarctic science is helping us understand the history and function of the entire Earth, and what it's like living and working on its largest, coldest and most remote and isolated continent.	Facilitated by Natalie Robinson (NIWA; Antarctica NZ), with a live chat with two scientists who were available at Scott Base on the day (names not recorded)

Earth Science for a Safe and Sustainable Future	Where does the metal in your mobile come from? What role does Earth science play in developing new materials and renewable energy? How does Earth science contribute to improving community resilience and wellbeing? Come along to hear these questions answered and more as we look to Earth science to provide continued access to the amenities and resources we have come to depend on in our everyday lives, while also ensuring a safe and sustainable future for all.	Kennie Tsui (New Zealand Geothermal Association)  Murray McCurdy (GNS Science)  Lauren farmer (Alpine Geoscience Consultants)  Caroline Orchiston (University of Otago)
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### 6.2.5 Festival Volunteer Helpers

<b>Names</b>
Kat Holt Ali Howard Laura Seelig Anna Perttu Kate Osborn Sandra Bourguignon Kees Jansen Lars Hansen Alexey Ippolitov Nicole Obren Jasmine Cassidy Gabriel King (leave early) Lottie Stevenson

### 6.2.6 Field Trip Presenters

<b>Site</b>	<b>Website Description</b>	<b>Presenter</b>
Red Rocks	Come and hear the 250 million year old story of the iconic Red Rocks. Find out the origins of not only the red rocks, but also the pink rocks, brown rocks, grey rocks and green rocks, whether from the accumulation of the skeletal remains of billions of ancient plankton, to the eruption of ancient basalt lavas. Over this ~6km roundtrip walk, we will also stop to admire the stunning faults visible in the Ōwhiro Bay Cliffs. Come along to hear from local hazard and emergency management experts about the hazards we face and what you can do to help keep your family, friends and communities safe from hazardous natural events. Time: 9am (approx. 90 min) Accessibility: ~6km walking required over uneven ground Meet at: Te Kopahou Visitor Centre, Ōwhiro Bay, Wellington 6023	Jenny Stein (GSNZ)

Princess Bay	Join us as we look for the fossil traces of creatures that lived on the deep sea floor 210 -215 million years ago. Keep your eyes peeled for the myriad of different coloured shapes preserved in the tilted layers of sedimentary rock...these are the remnant burrows and feeding trails of ancient crustaceans (shrimps and prawns), shellfish, fish, sea urchins and worms that were alive long before the dinosaurs! Time: 11am (approx. 60 min) Accessibility: <1km walking required over uneven ground Meet at: Princess Beach Carpark, Great Harbour Way, Wellington 6023	Mike Hannah (Te Herenga Waka Victoria University of Wellington)
Mt Victoria Lookout	Come and discover the Wellington region's uplifting history. All the hills and coastlines you can see around you have been shaped by the interplay of earthquakes and erosion. See and learn about the active faults that have formed the coastal terraces and other landscape features in the region. Time: 1pm (approx. 30 min) Accessibility: <1km walking required, on pavement, including stairs Meet at: Mt Victoria Lookout, Lookout Rd, Hataitai, Wellington 2021	Mike Hannah (Te Herenga Waka Victoria University of Wellington)
Harcourt Park	Gain a whole new perspective on the Hutt Valley by hearing about the Wellington Fault as you walk along it. We'll start by spotting the offset river terraces in the grassy slopes of Harcourt Park, before crossing the river via the footbridge to walk along the trace of the Wellington Fault as it traverses neighbouring California Park. Time: 3pm (approx. 60 min) Accessibility: partially wheelchair accessible; ~1km distance along paved and gravel paths and slopes Meet at: Harcourt Park, Akatawara Rd, Birchville, Upper Hutt 5018	Nicola Litchfield (GNS Science)

## 6.3 Participant Support

Information packs were sent out to all participants ahead of the festival containing detailed information about the venue, pack-in/pack-out procedure, Code of Conduct, health and safety information etc.

Participants were provided with an ID card (see) and lanyard upon arrival at the festival. These cards were designed to help differentiate festival participants from attendees, and to also provide key information about the festival and venue (including the WiFi login credentials, free drink coupon for the venue cafe, etc).

### 6.3.1 Refreshments

All registered participants were offered a free boxed lunch (Blue Carrot Catering) and drink from the venue café. These expenses were covered by festival sponsor Winstone Aggregates.



## 7 Attendance

### 7.1.1 Festival

A manual door counter run by a volunteer watching the main entrance to the festival venue for approximately 80% of the time logged over 1,400 attendees. No door counters were watching the other two entrances, but a conservative estimate of overall attendance is that at least 2,000 members of the public attended the festival during the course of the day. Anecdotal reports indicate that most visitors stayed longer than they had intended.

### 7.1.2 Field Trip

Between 5 and 27 people showed up to each location, which we consider good given the low amount of public promotion we gave this aspect of the festival:

- **9am** – Red Rocks (5 attendees)
- **11am** – Princess Bay Fossils (~27 attendees)
- **1pm** – Mt Victoria Lookout (~15 attendees)
- **3pm** – Harcourt Park (~ 8 attendees)

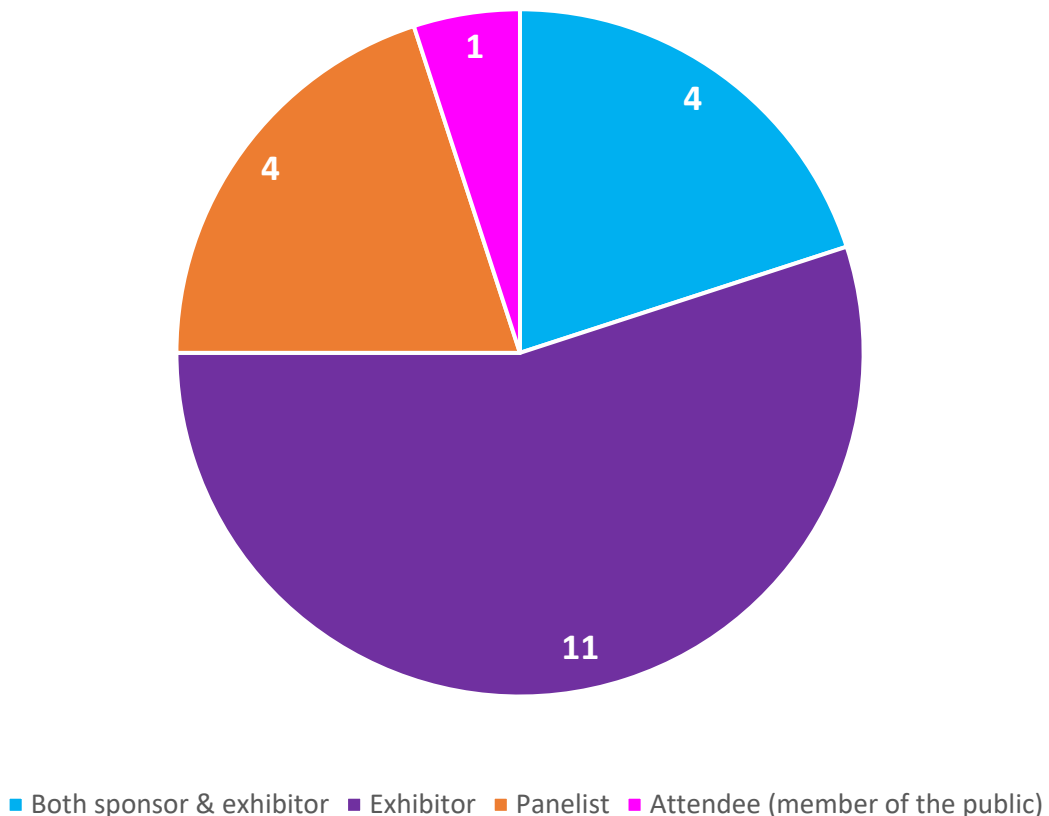
## 8 Feedback

Unfortunately, we did not have any mechanism in place to gather feedback from festival attendees. However, the comments from both participants and attendees on the day were overwhelmingly positive and the general consensus was that the festival was an excellent event that should definitely be repeated.

In the week following the festival an email of thanks and feedback survey was sent out to festival participants as a Google Form (<https://docs.google.com/forms/d/1kuqN4F06M-sv3O9MNk53VDrzhPl6ngYY-k5y7n1bM-s/>). This yielded an ~18% response rate (20 responses). A summary of the feedback is as follows.

### 8.1 Feedback Sources

Feedback Sources



## 8.2 Festival Ratings

1 = poor      2 = below average      3 = average      4 = good      5 = excellent

QUESTION	AVERAGE SCORE
How would you rate the EarthFest 2023 event overall?	4.65
How well do you think EarthFest was able to engage children and members of the public with Earth science?	4.80
How would you rate the organisation of EarthFest 2023?	4.75
How would you rate the running of EarthFest 2023 on the day? (if you were not there on the day please leave this question blank)	4.65
How would you rate the Walter Nash Centre as a venue for EarthFest?	4.85
How would you rate the promotion of EarthFest to the public (branding, fliers, website, radio advertising, billboards, Facebook advertising etc):	4.05

## 8.3 Participant Feedback Summaries

### 8.3.1 Organisation

Positive	Negative	Recommendations
Well organised  Great communication from organisers  Lively and engaging team  Organisation and marketing.	nil	nil

### 8.3.2 Promotion

Positive	Negative	Recommendations
Good marketing	Marketing opportunities in neighbouring communities missed.  Promotion didn't reach diverse audiences.	More promotion/ advertising.  Use regional Facebook pages.  Place (more) promo material in local community centre, on social media.  Advertise in local newspapers.

### 8.3.3 Venue

Positive	Negative	Recommendations
Great venue Easy access for exhibitors	Lack of parking. Central Wellington venue might work better.	Choose a venue with more parking. Choose a more central venue.

### 8.3.4 Execution

Positive	Negative	Recommendations
Well organised and MC'd. Good layout. All seemed to run like clockwork. Relaxed environment for families. Well attended. Really attracted kids and adults alike	Signage outside the building was inadequate. Closed a little early for some people (Poor) co-ordination between exhibits from GNS. Volunteers could be more proactive helping solo-exhibitors. Audience not diverse enough.	Better signage. Longer festival. Encourage different exhibit teams from the same organisation to communicate with each other. Communicate duties to volunteers better. Hand sanitizer and optional PPE for attendees. Provide cleaning equipment and/or hand sanitizer for each exhibitor. Try and coordinate a larger presence from high school students.

### 8.3.5 Exhibits and Exhibitors

Positive	Negative	Recommendations
Good exhibits/exhibitors Fantastic, broad range Interactive Activities hit the target really well All the exhibitors were very passionate and patient	Better defined spaces for some interactive activities. Some activities sometimes in the way of circulation. Cross-contamination (white flour on neighbouring black tablecloth).	nil

### 8.3.6 Other

Positive	Negative	Recommendations
<p>Great way for kids to experience science hands-on.</p> <p>Young people were really into it, which means the activities hit the target really well.</p> <p>The amount of exhibitors and interactive activities for the kids was awesome and got many people excited to learn about Earth science.</p> <p>Bringing together Earth scientists from all areas</p> <p>Catering to all ages.</p> <p>The event went really well, and I was very impressed.</p> <p>Feedback survey for participants</p>	<p>No feedback survey for attendees.</p>	<p>Continue to engage with the community.</p> <p>Think about sustainable funding going forward.</p> <p>A feedback survey that attendees could complete on the day, or after the event.</p>

### 8.3.7 Most Rewarding Aspects of the Festival

- Seeing so many people, especially kids, excited about geoscience and a career in geology
- talking to people from different backgrounds
- Talking to the kids and parents about what I actually do
- Good atmosphere
- Good exposure to current geological sciences and ideas for future activities.
- Seeing people understand what you were doing and/or explaining.
- Seeing so many kids getting involved
- Community engagement and seeing our neighbours understand more of what we do.
- Advising adults on how foster kids' excitement
- Making meaningful connections between groups and the community
- Seeing the engagement of kids, parents, and teachers.
- Interacting with enthusiastic public
- Great to get a feel for what people would like to know about and to focus our "booth" better in the future
- The inclusivity and diversity of attendees was striking to me, in terms of age, gender, and ethnicity.
- Exhibiting alongside geoscientists from all areas - academia, CRI's, and industry.
- Great to see those 'ah ha' moments happening.

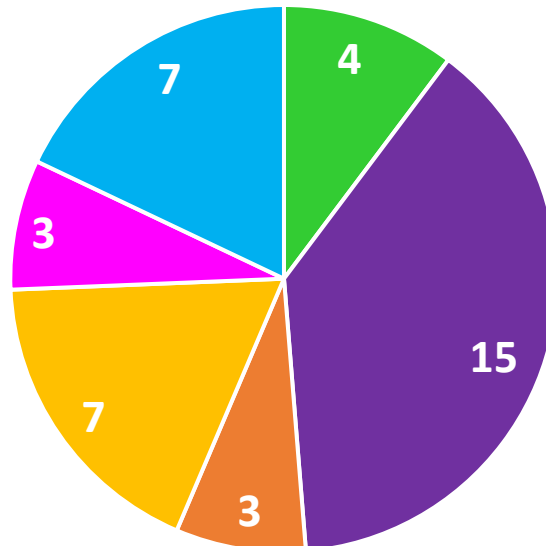
## 8.4 Feedback from attendees

This feedback was not collected directly. It has been passed on anecdotally from festival volunteers who spoke to attendees during the day:

- They were really appreciative overall about the quality and quantity of geoscience-related activities at the general event!
- Positive comments from our club members spoken to on the day
- Sorry - was too busy to note a lot of feedback other than the appreciation of those that I did analyses for.
- My neighbours took their two young girls, said they had a fantastic time and learned a lot
- Loved it
- I overheard parents talking, and saying how they expected to pop in for a short visit but were still there 3 hours later because their kids were enjoying it so much.
- The feedback was very positive from attendees. Overall, many kids and parents were super excited events like these were happening. I think a feedback I would share would be to share the event with the local schools, specifically teachers. I found 0 teachers at this event where it would be important to show teachers how important Earth Science is as well as give them ideas to incorporate into the class room.
- All feedback was that it was awesome. People just loved all the hands on activities
- We didn't explicitly solicit feedback, but there were lots of comments about how great it was, and we talked to a few school teachers and ECE educators who attended. One attendee was an alumna of our university, and was excited to be bringing his granddaughter to EarthFest 2023 to share his love for geoscience with her.

## 8.5 Future Participation

### Future Participation



- sponsor another EarthFest in the Hutt Valley/Wellington region in 2024
- exhibit at another EarthFest in the Hutt Valley/Wellington region in 2024
- sponsor an EarthFest in Dunedin in 2024
- exhibit at an EarthFest in Dunedin in 2024
- sponsor an EarthFest in another part of New Zealand
- exhibit at an EarthFest in another part of New Zealand

#### 8.5.1 Future Participation Comments

- Exhibition would depend on the local offices ability to host a stand
- Possibly another location, not sure on logistics of equipment and helpers!
- I'd be happy to help out as a panellist or fieldtrip leader again, but probably most likely in the Wellington Region
- Jenny, as you are aware that we also run a number of school events during the NZ Geothermal Week and perhaps we can also look into having joint activities in Taupo/Bay of Plenty region. Happy to discuss.
- keen as to volunteer again. keen to sponsor if \$\$\$ allows. Would love to exhibit if \$\$ allows.
- I would only be an exhibitor if my manager approved for travel to Dunedin.

-- End of Report --

*For further information or a more detailed report including a “how-to” guide with recommendations for organising future events based on this year’s experiences, please email [geoid@gsnz.org.nz](mailto:geoid@gsnz.org.nz).*



## Appendix D: GSNZ Audited Accounts

Here follows performance reports prepared by Brunton Cropp & Co Limited for:

- the Geoscience Society of New Zealand Incorporated
- the Geoscience Society of New Zealand Awards Trust
- Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust

# Performance Report

Geoscience Society of New Zealand Incorporated  
For the year ended 31 March 2024

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# Entity Information

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

'Who are we?', 'Why do we exist?'

### Legal Name of Entity

Geoscience Society of New Zealand Incorporated - Parent

### Entity Type and Legal Basis

Incorporated Society

### Registration Number

21991

### Entity's Purpose or Mission

- (a) To encourage the advancement of geosciences.
- (b) To serve as a means of facilitating communication and cooperation among members, and other bodies.
- (c) To investigate and report on matters of general interest to New Zealand geoscientists.
- (d) To investigate and report on matters of geoscience that concern members of the general public, and local and territorial statutory bodies.
- (e) To serve as a channel for the expression of the views of New Zealand geoscientists.
- (f) To hold and sponsor conferences and other scientific meetings and meetings of Subcommittees, local Branches and Special Interest Groups.
- (g) To support Tertiary Students and Early Career Geoscientists in their research and to attend geoscience conferences and meetings, by approving Awards and Prizes through the medium of the geological Awards Trust (Inc).
- (h) To encourage and give recognition to high standards of geoscientific research.
- (i) To seek the preservation of important geoscientific sites.
- (j) To encourage the highest standards of professional competence and ethical conduct in the practice of the geosciences in New Zealand.

### Entity Structure

Membership of the Society is open to all those interested in the geosciences, whether professional or amateur. Members are elected by a simple vote of the Committee. Membership is in two classes, Ordinary (individuals or corporate bodies), and Honorary.

Our Governance is controlled by an elected committee consisting of elected Officers ( President, Immediate Past President(ex officio), Vice President, Secretary, and Treasurer), five ordinary elected members, and up to two co-opted members on an annualised basis, one of whom maybe the Newsletter Editor. Additional roles, which may or may not be filled by a committee member are: Newsletter Editor, Webmaster and Publications Officer/Convenor.

Four subcommittees look after Awards, the Fossil Record File for New Zealand and its territories, Geoheritage, and Geophysical affairs. A Publication Sub-committee may be convened for large projects.

Eight Branches are located in Auckland, Waikato, Taupo, Taranaki, Manawatu, Wellington, Canterbury and Otago. They are supported by member grants from the Society funds and must follow the Rules of the Society, but otherwise are self-governing in their activities.

Special Interest Groups (SIGs) may be formed, subject to consent from the National Committee, for the purposes of encouraging scientific research and communication in specific geoscience topic areas. The current SIGs are GeoEducation, Historic Studies (which produces its own Journal), Friends of the Pleistocene, Paleontology, Oil and Gas, NZ Sedimentology Group, Geochemistry

and LAVA (NZ) (volcanology).

We do not employ staff, but we contract out administrative services such as membership and conference organisation. Volunteers from both inside and outside the committee also help with Internet, Web Site, Publications, archives and Conference organisation.

### **Main Sources of Entity's Cash and Resources**

We receive our main income from sales of publications and subscriptions from members, but also variably from award donations and surpluses from the annual Conference, and occasionally from sponsors of major special publications. These last include the Universities, local and regional bodies, and the Stout Trust for delivery of Special Publications to New Zealand Intermediate and secondary schools.

### **Main Methods Used by Entity to Raise Funds**

Fundraising is by seeking sponsors for major publications and Awards, the running costs of the Annual Conference, and for promoting publication sales; and by actively encouraging membership of the Society. In addition to their membership fee, members have an option to donate to the various specific Award Funds.

### **Entity's Reliance on Volunteers and Donated Goods or Services**

Volunteers including those on the Committee contribute to the day to day running of the Society by being authors and editors of publications, Annual Conference organisers and student staff, fieldtrip guide authors and leaders.

### **Email/Website**

admin@gsnz.org.nz  
www.gsnz.org.nz

### **Postal Address**

PO Box 7003,  
Newtown  
Wellington  
New Zealand, 6242

# Approval of Financial Report

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

The Board are pleased to present the approved financial report including the historical financial statements of Geoscience Society of New Zealand Incorporated for year ended 31 March 2024.

APPROVED

\_\_\_\_\_  
President  
Date .....

\_\_\_\_\_  
Treasurer  
Date .....

# Statement of Service Performance

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

'What did we do?', 'When did we do it?'

### Description of Entity's Outcomes

Through the Annual Conference, Branch meetings, field trips and publications, students of all levels and young researchers are exposed to the work and influence of older, more experienced geoscientists, from whom they can learn future career paths. Along with members of the Public, they can learn how the natural world around them can influence their lives by increasing their understanding of geoscience processes leading to and resulting from disasters such as floods, earthquakes and volcanic eruptions, and the origins of geological natural resources such as minerals.

	2024	2023
<b>Description and Quantification of the Entity's Outputs</b>		
Conference attendees (Geosciences 2023: "Where plates and people meet")	411	370
Conference presentations (papers & posters)	289	322
Conference student attendees	118	155
Workshops & Field Trips (FT-4) participants	197	93
Public Lecture attendees (hosted at annual conference)	154	168
Branch meetings and field trips	62	49
Recipients of the three annual Newsletters	752	751
Recipients of thirteen Newsflashes	752	751
Attendees at President's lectures	-	206
Attendees at Hochstetter lecture tour	343	258
Attendees at Hochstetter support lecture	75	47
Grants and Awards made	24	24
Awards Trust – Awards made	9	12
Awards Trust – Awards value (\$)	12,550	7,666

### Additional Information

The Society is ever grateful for donated funds towards student prizes and research awards. For instance, in 1997, funds were donated to the Society by a Mr Sid Hastie, who said "I decided to provide funds for a geology scholarship to foster and encourage an interest in geology in the hope that others will find as much pleasure in the study of geology as I have. The knowledge I have gained and the friends I have made as a result of my interest and curiosity in this fascinating subject have added greatly to my enjoyment of life". This is one of the annual Awards to Masters/Honours level students, one from each University.

# Statement of Financial Performance

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

'How was it funded?' and 'What did it cost?'

	NOTES	2024	2023
<b>Revenue</b>			
Donations, fundraising and other similar revenue	1	-	490,103
Fees, subscriptions and other revenue from members	1	46,627	47,347
Revenue from providing goods or services	1	15,707	7,443
Interest, dividends and other investment revenue	1	36,689	14,420
<b>Total Revenue</b>		<b>99,023</b>	<b>559,312</b>
<b>Expenses</b>			
Costs related to providing goods or service	2	58,324	46,769
Grants and donations made	2	10,376	18,119
Other expenses	2	2,294	6,835
<b>Total Expenses</b>		<b>70,994</b>	<b>71,723</b>
<b>Surplus/(Deficit) for the Year</b>		<b>28,029</b>	<b>487,590</b>

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.



# Statement of Financial Position

## Geoscience Society of New Zealand Incorporated As at 31 March 2024

'What the entity owns?' and 'What the entity owes?'

	NOTES	31 MAR 2024	31 MAR 2023
<b>Assets</b>			
<b>Current Assets</b>			
Bank accounts and cash	3	122,831	46,731
Debtors and prepayments	3	4,313	11,489
Inventory	3	3,992	5,418
Term Deposits (current)	3	611,213	653,915
<b>Total Current Assets</b>		<b>742,348</b>	<b>717,553</b>
<b>Total Assets</b>		<b>742,348</b>	<b>717,553</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Creditors and accrued expenses	4	(771)	2,463
Recognised accumulated donations and grants	4	-	31,927
<b>Total Current Liabilities</b>		<b>(771)</b>	<b>34,390</b>
<b>Total Liabilities</b>		<b>(771)</b>	<b>34,390</b>
<b>Total Assets less Total Liabilities (Net Assets)</b>		<b>743,119</b>	<b>683,163</b>
<b>Accumulated Funds</b>			
Accumulated surpluses or (deficits)	5	743,119	683,163
<b>Total Accumulated Funds</b>		<b>743,119</b>	<b>683,163</b>

This statement should be read in conjunction with the attached Notes to the Accounts and Audit Report.

# Statement of Cash Flows

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

	2024	2023
<b>Cash Flows from Operating Activities</b>		
Donations, fundraising and other similar receipts	-	490,103
Fees, subscriptions and other receipts from members	47,566	46,751
Receipts from providing goods or services	15,811	7,191
Interest, dividends and other investment receipts	36,725	10,921
Cash receipts from other operating activities	60	128
GST	212	(2,543)
Payments to suppliers and employees	(56,852)	(58,004)
Donations or grants paid	(10,066)	(17,166)
<b>Total Cash Flows from Operating Activities</b>	<b>33,457</b>	<b>477,380</b>
<b>Cash Flows from Investing and Financing Activities</b>		
Receipts from sale of investments	529,456	460,000
Payments to purchase investments	(486,754)	(968,123)
Cash flows from other investing and financing activities	(60)	60
<b>Total Cash Flows from Investing and Financing Activities</b>	<b>42,642</b>	<b>(508,063)</b>
<b>Net Increase/(Decrease) in Cash</b>	<b>76,099</b>	<b>(30,683)</b>
<b>Bank Accounts and Cash</b>		
Opening cash	46,731	77,414
Net change in cash for period	76,099	(30,683)
Closing cash	122,831	46,731

This statement should be read in conjunction with the attached Notes to the Accounts and Audit Report.

# Statement of Accounting Policies

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

'How did we do our accounting?'

### **Basis of Preparation**

The entity has elected to apply PBE SFR-A (NFP) Public Benefit Entity Simple Format Reporting - Accrual (Not-For-Profit) on the basis that it does not have public accountability and has total annual expenses equal to or less than \$2,000,000. All transactions in the Performance Report are reported using the accrual basis of accounting. The Performance Report is prepared under the assumption that the entity will continue to operate in the foreseeable future.

### **Goods and Services Tax (GST)**

The entity is registered for GST. All amounts are stated exclusive of goods and services tax (GST) except for accounts payable and accounts receivable which are stated inclusive of GST.

### **Income Tax**

Geoscience Society of New Zealand Incorporated is wholly exempt from New Zealand income tax having fully complied with all statutory conditions for these exemptions.

### **Bank Accounts and Cash**

Bank accounts and cash in the Statement of Cash Flows comprise cash balances and bank balances (including short term deposits) with original maturities of 90 days or less.

### **Changes in Accounting Policies**

There have been no changes in accounting policies. Policies have been applied on a consistent basis with those of the previous reporting period.

# Notes to the Performance Report

## Geoscience Society of New Zealand Incorporated For the year ended 31 March 2024

	2024	2023
<b>1. Analysis of Revenue</b>		
<b>Donations, fundraising and other similar revenue</b>		
Donations	-	479,553
Student Travel	-	50
Sponsorship	-	10,500
<b>Total Donations, fundraising and other similar revenue</b>	<b>-</b>	<b>490,103</b>
<b>Fees, subscriptions and other revenue from members</b>		
Subscriptions	46,627	47,347
<b>Total Fees, subscriptions and other revenue from members</b>	<b>46,627</b>	<b>47,347</b>
<b>Revenue from providing goods or services</b>		
Conference Income	11,267	3,333
Sales	3,790	3,636
Sundry income	-	273
Website Advertising	650	200
<b>Total Revenue from providing goods or services</b>	<b>15,707</b>	<b>7,443</b>
<b>Interest, dividends and other investment revenue</b>		
Interest Income	36,689	14,420
<b>Total Interest, dividends and other investment revenue</b>	<b>36,689</b>	<b>14,420</b>
	2024	2023

## 2. Analysis of Expenses

<b>Costs related to providing goods or services</b>		
Administration & Office Expenses	31,465	29,198
Advertising	-	262
Bank & Merchant Fees	55	60
Cost of Goods Sold	1,426	4,138
Committee Meetings & Expenses	2,145	2,975
Computer Expenses	-	213
Conference Costs	7,977	-
General Expenses	348	875
Hochstetter's Auckland Diary	2,000	-
Hochstetter / Lecture Tours	217	4,361
Honorarium	1,500	-
Insurances	1,600	1,354
Newsletters	5,117	5,411
Printing & Stationery	(1,591)	169
Publication Costs	5,804	(2,248)
Uni Geoscience Student Associations	261	-
<b>Total Costs related to providing goods or services</b>	<b>58,324</b>	<b>46,769</b>

	2024	2023
<b>Grants and donations made</b>		
Branch Grants	2,327	4,031
Grants and Awards	249	1,644
Kingma Award	250	250
Miscellaneous Awards	50	6,194
Young Researcher Travel Award	7,500	6,000
<b>Total Grants and donations made</b>	<b>10,376</b>	<b>18,119</b>
<b>Other expenses</b>		
Audit & Accounting Expenses	2,294	6,835
<b>Total Other expenses</b>	<b>2,294</b>	<b>6,835</b>
	2024	2023

### 3. Analysis of Assets

<b>Bank accounts and cash</b>		
Westpac Inc & Exp Acct	25,831	28,363
Westpac Inc & Exp Savings	97,000	18,368
<b>Total Bank accounts and cash</b>	<b>122,831</b>	<b>46,731</b>
<b>Debtors and prepayments</b>		
Accounts Receivable	262	7,402
Accrued Interest	4,050	4,086
<b>Total Debtors and prepayments</b>	<b>4,313</b>	<b>11,489</b>
<b>Inventory</b>		
Stock on Hand	3,992	5,418
<b>Total Inventory</b>	<b>3,992</b>	<b>5,418</b>
<b>Term Deposit</b>		
Westpac Term Deposit - 0003	156,599	148,907
Westpac Term Deposit - 0004	42,658	40,552
Westpac Term deposit - 0006	-	464,456
Westpac Term Deposit - 0007	411,955	-
<b>Total Term Deposit</b>	<b>611,213</b>	<b>653,915</b>
	2024	2023

### 4. Analysis of Liabilities

<b>Creditors and accrued expenses</b>		
Accounts Payable	-	2,898
GST	(771)	(435)
<b>Total Creditors and accrued expenses</b>	<b>(771)</b>	<b>2,463</b>
<b>Recognised accumulated donations and grants</b>		
Award Funds	-	12,698
Continent on the Move #2	-	4,704
SAGE Geographics Fund	-	6,565

Stout Trust Grant - Lloyd Homer Book	-	7,960
<b>Total Recognised accumulated donations and grants</b>	-	<b>31,927</b>

	2024	2023
--	------	------

## 5. Accumulated Funds

### Accumulated Funds

Opening Balance	683,163	195,573
Transfer in from Grants with Conditions	31,927	-
Accumulated surpluses or (deficits)	28,029	487,590
<b>Total Accumulated Funds</b>	<b>743,119</b>	<b>683,163</b>
<b>Total Accumulated Funds</b>	<b>743,119</b>	<b>683,163</b>

## 6. Commitments

There are no commitments as at 31 March 2024 (Last year - nil).

## 7. Contingent Liabilities and Guarantees

There are no contingent liabilities or guarantees as at 31 March 2024 (Last year - nil).

## 8. Related Parties

There were no transactions involving related parties during the financial year (Last year - nil) .

## 9. Events After the Balance Date

There were no events that have occurred after the balance date that would have a material impact on the Performance Report (Last year - nil).

## 10. Ability to Continue Operating

The entity will continue to operate for the foreseeable future.

# Performance Report

Geoscience Society of New Zealand Awards Trust  
For the year ended 31 March 2024

Prepared by Brunton Cropp & Co Limited

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# Compilation Report

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

Compilation Report to the Trustees of Geoscience Society of New Zealand Awards Trust.

### Scope

On the basis of information provided and in accordance with Service Engagement Standard 2 Compilation of Financial Information, we have compiled the financial statements of Geoscience Society of New Zealand Awards Trust for the year ended 31 March 2024.

These statements have been prepared in accordance with the accounting policies described in the Notes to these financial statements.

### Responsibilities

The Trustees are solely responsible for the information contained in this financial report and have determined that the accounting policies used are appropriate to meet your needs and for the purpose that the financial statements were prepared.

The financial statements were prepared exclusively for your benefit. We do not accept responsibility to any other person for the contents of the financial statements.

### No Audit or Review Engagement Undertaken

Our procedures use accounting expertise to undertake the compilation of the financial statements from information you provided. Our procedures do not include verification or validation procedures. No audit or review engagement has been performed and accordingly no assurance is expressed.

### Independence

We have no involvement with Geoscience Society of New Zealand Awards Trust other than for the preparation of financial statements and management reports and offering advice based on the financial information provided.

### Disclaimer

We have compiled these financial statements based on information provided which has not been subject to an audit or review engagement. Accordingly, we do not accept any responsibility for the reliability, accuracy or completeness of the compiled financial information contained in the financial statements. Nor do we accept any liability of any kind whatsoever, including liability by reason of negligence, to any person for losses incurred as a result of placing reliance on this financial report.

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Brunton Cropp & Co Limited

Lower Hutt

Dated: 30 October 2024

# Entity Information

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

'Who are we?', 'Why do we exist?'

### Legal Name of Entity

Geoscience Society of New Zealand Awards Trust

### Entity Type and Legal Basis

Charitable Trust

### Registration Number

1477708 (CC35670)

### Entity's Purpose or Mission

- a) To make awards recognising significant achievements by persons resident in NZ in Geoscience and related scientific fields, in particular to Tertiary students and Young Researchers within the first ten years of their professional career.
- (b) To administer awards and prizes known as the Alan Mason Historical Studies Fund, Hornibrook Prize, Pullar/Vucetich prize, Hastie Awards, Wellman prize, Wellman Research Award, NZ Geophysics Prize, Werner F. Giggerbach Prize for Geochemistry, Jim Ansell geophysics Scholarship, John Beavan Geodetic Fieldwork Grant, Haywood Geocommunication Award, and such further awards and prizes as may be established by the Trust from time to time.
- (c) To support the advancement of geoscience research and knowledge in NZ generally.
- (d) To make grants to further geoscience research and endeavour.
- (e) To promote awareness and education in the earth sciences in NZ.
- (f) To support libraries and other channels for raising knowledge and awareness of the earth sciences.
- (g) To do all such other acts and things as are incidental to or that will further the attainment of the foregoing objects or any of them provided that nothing herein before contained shall authorise any objects that are not charitable in law.
- (h) To seek, accept and receive donations, subsidies, grants, endowments, gifts, legacies, loans and bequests in money or in kind and to carry out any specified Trust attaching or relating to such benefits to the intent that any benefit made to the Trust be made for the general purposes of the Trust or may be made for some purposes within the general objects of the Trust specified in particular cases by the donor.
- (i) In any way consistent with these objects, to both maximise the income of the Trust on its capital and to increase the capital of the Trust.

### Entity Structure

The Trust Board consist of no more than five nor less than three members of the Geoscience Society of New Zealand incorporated ("the Society"). The Immediate Past President and the Treasurer of the Society for the time being are ex officio Trustees, along with between one and three persons elected at the Annual General Meeting of the Society. The Board shall have the following officers:- a Chairperson who shall be the Society's Immediate Past President, a Secretary and a Treasurer; these offices may be combined. The Trustees may appoint up to five persons at any one time as Advisory Trustees to advise them on one or more aspects of the Trust's affairs; Advisory Trustees may attend Board meetings but have neither voting rights nor rights or obligations of Trustees.

### Main Sources of Entity's Cash and Resources

We receive our main income from short and long term (12 month Term Deposit) interest-bearing bank accounts, variably from Society member's donations to specific awards, and occasionally, from new donors for new Awards.

### Entity's Reliance on Volunteers and Donated Goods or Services

Volunteers including those on the Society's Awards Sub-committee contribute to the activities of the Trust by seeking nominations for Awards, and by assessing the suitability of nominees for an Award or Prize.

**Physical Address**

c/- GNS Science; 1 Fairway Drive, Avalon, Lower Hutt 5010

**Postal Address**

c/- Geoscience Society of New Zealand  
PO Box 7003  
Newtown  
Wellington 6242

**Email/Website**

admin@gsnz.org.nz  
www.gsnz.org.nz

# Approval of Financial Report

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

The Trustees are pleased to present the approved financial report including the historical financial statements of Geoscience Society of New Zealand Awards Trust for year ended 31 March 2024.

APPROVED

\_\_\_\_\_  
Chairperson  
Date .....

\_\_\_\_\_  
Treasurer  
Date .....

# Statement of Service Performance

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

'What did we do?', 'When did we do it?'

### Description of Entity's Outcomes

Awards and prizes were approved this financial year include the six Hastie Awards, The Wellman Prize, the Wellman Research Award, The Pullar/Vucetich Award and the Jim Ansell Geophysics Scholarship. As per the Trust Deed, the available funds to pay out for Awards and Prizes was commensurate with the modest annual interest earned from term deposits.

	2024	2023
<b>Description and Quantification of the Entity's Outputs</b>		
Awards and Prizes distributed	9	12
Value of Awards and Prizes (\$)	12,550	7,666

# Statement of Financial Performance

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

'How was it funded?' and 'What did it cost?'

	NOTES	2024	2023
<b>Revenue</b>			
Interest, dividends and other investment revenue	1	28,760	15,625
Other revenue	1	29,274	12,400
<b>Total Revenue</b>		<b>58,034</b>	<b>28,025</b>
<b>Expenses</b>			
Costs related to providing goods or service	2	53	35
Grants and donations made	2	12,550	7,666
Other expenses	2	1,597	481
<b>Total Expenses</b>		<b>14,200</b>	<b>8,182</b>
<b>Surplus/(Deficit) for the Year</b>		<b>43,834</b>	<b>19,843</b>

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

# Statement of Financial Position

## Geoscience Society of New Zealand Awards Trust As at 31 March 2024

'What the entity owns?' and 'What the entity owes?'

	NOTES	31 MAR 2024	31 MAR 2023
<b>Assets</b>			
<b>Current Assets</b>			
Bank accounts and cash	3	27,876	41,383
Term Deposits (current)	3	114,015	110,000
Interest Accrual		4,874	2,948
Goods and services tax	3	1,000	757
<b>Total Current Assets</b>		<b>147,764</b>	<b>155,087</b>
<b>Non-Current Assets</b>			
Investments	3	606,277	555,120
<b>Total Non-Current Assets</b>		<b>606,277</b>	<b>555,120</b>
<b>Total Assets</b>		<b>754,041</b>	<b>710,207</b>
<b>Total Assets less Total Liabilities (Net Assets)</b>		<b>754,041</b>	<b>710,207</b>
<b>Accumulated Funds</b>			
Accumulated surpluses or (deficits)	4	195,200	188,517
Reserves	5	558,841	521,690
<b>Total Accumulated Funds</b>		<b>754,041</b>	<b>710,207</b>

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

# Statement of Cash Flows

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

	2024	2023
<b>Cash Flows from Operating Activities</b>		
Interest, dividends and other investment receipts	26,835	12,677
GST	(243)	(252)
Payments to suppliers and employees	(1,650)	(1,716)
Donations or grants paid	(12,550)	(7,666)
<b>Total Cash Flows from Operating Activities</b>	<b>12,391</b>	<b>3,043</b>
<b>Cash Flows from Investing and Financing Activities</b>		
Payments to purchase investments	(4,015)	(110,000)
Cash flows from other investing and financing activities	(21,883)	(542,720)
<b>Total Cash Flows from Investing and Financing Activities</b>	<b>(25,898)</b>	<b>(652,720)</b>
<b>Net Increase/(Decrease) in Cash</b>	<b>(13,507)</b>	<b>(649,677)</b>
<b>Bank Accounts and Cash</b>		
Opening cash	41,383	691,060
Net change in cash for period	(13,507)	(649,677)
Closing cash	27,876	41,383

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.



# Statement of Accounting Policies

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

'How did we do our accounting?'

### Reporting Entity

Geoscience Society of New Zealand Awards Trust is a Charitable Trust and is a registered charity under the Charities Act 2005.

### Basis of Preparation

The entity has elected to apply PBE SFR-A (NFP) Public Benefit Entity Simple Format Reporting - Accrual (Not-For-Profit) on the basis that it does not have public accountability and has total annual expenses equal to or less than \$2,000,000. All transactions in the Performance Report are reported using the accrual basis of accounting. The Performance Report is prepared under the assumption that the entity will continue to operate in the foreseeable future.

### Goods and Services Tax (GST)

The entity is registered for GST. All amounts are stated exclusive of goods and services tax (GST) except for accounts payable and accounts receivable which are stated inclusive of GST.

### Income Tax

Geoscience Society of New Zealand Awards Trust is wholly exempt from New Zealand income tax having fully complied with all statutory conditions for these exemptions.

### Bank Accounts and Cash

Bank accounts and cash in the Statement of Cash Flows comprise cash balances and bank balances (including short term deposits) with original maturities of 90 days or less.

### Changes in Accounting Policies

There have been no changes in accounting policies. Policies have been applied on a consistent basis with those of the previous reporting period.

### Awards and Prizes

These are recorded on a cash basis when they are paid.

# Notes to the Performance Report

## Geoscience Society of New Zealand Awards Trust For the year ended 31 March 2024

	2024	2023
<b>1. Analysis of Revenue</b>		
<b>Interest, dividends and other investment revenue</b>		
Interest Income	6,877	3,905
Westpac Active Series Moderate Trust PIE Income	21,883	11,720
<b>Total Interest, dividends and other investment revenue</b>	<b>28,760</b>	<b>15,625</b>
<b>Other revenue</b>		
Unrealised Gains on Investments	29,274	12,400
<b>Total Other revenue</b>	<b>29,274</b>	<b>12,400</b>
	2024	2023
<b>2. Analysis of Expenses</b>		
<b>Costs related to providing goods or services</b>		
Bank Fees	30	35
Freight & Courier	23	-
<b>Total Costs related to providing goods or services</b>	<b>53</b>	<b>35</b>
<b>Grants and donations made</b>		
Grants and Awards	4,000	-
Harold Wellman Prize	250	220
Hastie Grants	2,000	1,500
Hayward Communication Award	550	530
Hornibrook Award	1,000	-
Jim Ansell Geophysics Scholarship	1,000	1,000
NZ Geophysics Prize	400	400
Pullar-Vucetich Prize	-	691
Wellman Research Award	3,000	3,000
Werner Giggenbach Prize	350	325
<b>Total Grants and donations made</b>	<b>12,550</b>	<b>7,666</b>
Total Number of Grants and Donations made	9	12
<b>Other expenses</b>		
Administration	353	396
Audit	1,244	-
General Expenses	-	85
<b>Total Other expenses</b>	<b>1,597</b>	<b>481</b>
	2024	2023
<b>3. Analysis of Assets</b>		
<b>Bank accounts and cash</b>		
Current Account	1,244	10,538

These notes have been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

	2024	2023
Savings Account	26,632	30,845
<b>Total Bank accounts and cash</b>	<b>27,876</b>	<b>41,383</b>
<b>Term Deposits (Current)</b>		
Term Deposit - 81/0013	114,015	110,000
<b>Total Term Deposits (Current)</b>	<b>114,015</b>	<b>110,000</b>
<b>Debtors and prepayments</b>		
Interest Accrual	4,874	2,948
<b>Total Debtors and prepayments</b>	<b>4,874</b>	<b>2,948</b>
GST	1,000	757
<b>Investments</b>		
Westpac - Active Series Moderate Trust Fund	606,277	555,120
<b>Total Investments</b>	<b>606,277</b>	<b>555,120</b>
	2024	2023

#### 4. Accumulated Funds

<b>Accumulated Funds</b>		
<b>Retained earnings/Accumulated funds</b>		
Opening Balance	188,517	184,612
Allocation of Income & Expenses to Reserves	(37,151)	(15,937)
Current Year Earnings	43,834	19,843
<b>Total Retained earnings/Accumulated funds</b>	<b>195,200</b>	<b>188,517</b>
<b>Total Accumulated Funds</b>	<b>195,200</b>	<b>188,517</b>
<b>Total Accumulated Funds</b>	<b>195,200</b>	<b>188,517</b>
	2024	2023

#### 5. Breakdown of Reserves

<b>Reserves</b>		
General Award Reserve	154,012	157,620
Hastie Award Reserve	155,965	144,277
Hayward GeoCommunication Award Reserve	71,309	56,288
NZGeMs Awards Reserve	36,817	32,361
Wellman Awards Reserve	140,738	131,144
<b>Total Reserves</b>	<b>558,841</b>	<b>521,690</b>

#### 6. Commitments

There are no commitments as at 31 March 2024 (Last year - nil).

#### 7. Contingent Liabilities and Guarantees

There are no contingent liabilities or guarantees as at 31 March 2024 Last year - nil).

#### 8. Related Parties

These notes have been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

There were no transactions involving related parties during the financial year. (LY: Nil)

#### **9. Events After the Balance Date**

There were no events that have occurred after the balance date that would have a material impact on the Performance Report (Last year - nil).

#### **10. Ability to Continue Operating**

The entity will continue to operate for the foreseeable future.

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These notes have been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

# Performance Report

Consolidated Accounts of Geoscience Society of New Zealand  
Incorporated & Awards Trust  
For the year ended 31 March 2024

# Compilation Report

## Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust For the year ended 31 March 2024

Compilation Report to the Trustees of Geoscience Society of New Zealand Incorporated.

### Scope

On the basis of information provided and in accordance with Service Engagement Standard 2 Compilation of Financial Information, we have compiled the financial statements of Geoscience Society of New Zealand Incorporated for the year ended 31 March 2024.

These statements have been prepared in accordance with the accounting policies described in the Notes to these financial statements.

### Responsibilities

The Governing body are solely responsible for the information contained in this financial report and have determined that the accounting policies used are appropriate to meet your needs and for the purpose that the financial statements were prepared.

The financial statements were prepared exclusively for your benefit. We do not accept responsibility to any other person for the contents of the financial statements.

### No Audit or Review Engagement Undertaken

Our procedures use accounting expertise to undertake the compilation of the financial statements from information you provided. Our procedures do not include verification or validation procedures. No audit or review engagement has been performed and accordingly no assurance is expressed.

### Independence

We have no involvement with Geoscience Society of New Zealand Incorporated other than for the preparation of financial statements and management reports and offering advice based on the financial information provided.

### Disclaimer

We have compiled these financial statements based on information provided which has not been subject to an audit or review engagement. Accordingly, we do not accept any responsibility for the reliability, accuracy or completeness of the compiled financial information contained in the financial statements. Nor do we accept any liability of any kind whatsoever, including liability by reason of negligence, to any person for losses incurred as a result of placing reliance on this financial report.

Brunton Cropp & Co Limited  
Lower Hutt  
Dated: 30 October 2024

## Entity Information

Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust  
For the year ended 31 March 2024

### 'Who are we?', 'Why do we exist?'

#### Legal Name of Entity

Geoscience Society of New Zealand Incorporated  
Geoscience Society of New Zealand Awards Trust

#### Entity Type and Legal Basis

Incorporated Society and Registered Charity

#### Registration Number

21991 and CC41125

#### Entity's Purpose or Mission

- (a) To encourage the advancement of geosciences.
- (b) To serve as a means of facilitating communication and cooperation among members, and other bodies.
- (c) To investigate and report on matters of general interest to New Zealand geoscientists.
- (d) To investigate and report on matters of geoscience that concern members of the general public, and local and territorial statutory bodies.
- (e) To serve as a channel for the expression of the views of New Zealand geoscientists.
- (f) To hold and sponsor conferences and other scientific meetings and meetings of Subcommittees, local Branches and Special Interest Groups.
- (g) To support Tertiary Students and Early Career Geoscientists in their research and to attend geoscience conferences and meetings, by approving Awards and Prizes through the medium of the geological Awards Trust (Inc).
- (h) To encourage and give recognition to high standards of geoscientific research.
- (i) To seek the preservation of important geoscientific sites.
- (j) To encourage the highest standards of professional competence and ethical conduct in the practice of the geosciences in New Zealand.

#### Entity Structure

Membership of the Society is open to all those interested in the geosciences, whether professional or amateur. Members are elected by a simple vote of the Committee. Membership is in two classes, Ordinary (individuals or corporate bodies), and Honorary.

Our Governance is controlled by an elected committee consisting of elected Officers ( President, Immediate Past President(ex officio), Vice President, Secretary, and Treasurer), five ordinary elected members, and up to two co-opted members on an annualised basis, one of whom maybe the Newsletter Editor. Additional roles, which may or may not be filled by a committee member are: Newsletter Editor, Webmaster and Publications Officer/Convenor.

Four subcommittees look after Awards, the Fossil Record File for New Zealand and its territories, Geoheritage, and Geophysical affairs. A Publication Sub-committee may be convened for large projects.

Eight Branches are located in Auckland, Waikato, Taupo, Taranaki, Manawatu, Wellington, Canterbury and Otago. They are supported by member grants from the Society funds and must follow the Rules of the Society, but otherwise are self-governing in their activities.

Special Interest Groups (SIGs) may be formed, subject to consent from the National Committee, for the purposes of encouraging scientific research and communication in specific geoscience topic areas. The current SIGs are GeoEducation, Historic Studies (which produces its own Journal), Friends of the Pleistocene, Paleontology, Oil and Gas, NZ Sedimentology Group, Geochemistry and LAVA (NZ) (volcanology).

We do not employ staff, but we contract out administrative services such as membership and conference organisation. Volunteers from both inside and outside the committee also help with Internet, Web Site, Publications, archives and Conference organisation.

#### Main Sources of Entity's Cash and Resources

We receive our main income from sales of publications and subscriptions from members, but also variably from award donations and surpluses from the annual Conference, and occasionally from sponsors of major special publications. These last include the Universities, local and regional bodies, and the Stout Trust for delivery of Special Publications to New Zealand Intermediate and secondary schools.

## **Entity Information**

Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust

For the year ended 31 March 2024

### **Main Methods Used by Entity to Raise Funds**

Fundraising is by seeking sponsors for major publications and Awards, the running costs of the Annual Conference, and for promoting publication sales; and by actively encouraging membership of the Society. In addition to their membership fee, members have an option to donate to the various specific Award Funds.

### **Entity's Reliance on Volunteers and Donated Goods or Services**

Volunteers including those on the Committee contribute to the day to day running of the Society by being authors and editors of publications, Annual Conference organisers and student staff, fieldtrip guide authors and leaders.

### **Email/Website**

[admin@gsnz.org.nz](mailto:admin@gsnz.org.nz)

[www.gsnz.org.nz](http://www.gsnz.org.nz)

### **Postal Address**

PO Box 7003,  
Newtown  
Wellington  
New Zealand, 6242



# Approval of Financial Report

Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust

For the year ended 31 March 2024

The Board are pleased to present the approved financial report including the historical financial statements of Geoscience Society of New Zealand Incorporated for year ended 31 March 2024.

APPROVED

President

Date .....

Treasurer

Date .....

## Statement of Service Performance

Consolidated Accounts of Geoscience Society of New Zealand  
Incorporated & Awards Trust  
For the year ended 31 March 2024

'What did we do?', 'When did we do it?'

### Description of Entity's Outcomes

Through the Annual Conference, Branch meetings, field trips and publications, students of all levels and young researchers are exposed to the work and influence of older, more experienced geoscientists, from whom they can learn future career paths. Along with members of the Public, they can learn how the natural world around them can influence their lives by increasing their understanding of geoscience processes leading to and resulting from disasters such as floods, earthquakes and volcanic eruptions, and the origins of geological natural resources such as minerals.

<b>Account</b>	<b>2024</b>	<b>2023</b>
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### Description and Quantification of the Entity's Outputs

Conference attendees (Geosciences 2023: "Where plates and people meet")	411	370
Conference presentations (papers & posters)	289	322
Conference student attendees	118	155
Workshops & Field Trips (FT-4) participants	197	93
Public Lecture attendees (hosted at annual conference)	154	168
Branch meetings and field trips	62	49
Recipients of the three annual Newsletters	752	751
Recipients of thirteen Newsflashes	752	751
Attendees at President's lectures	0	206
Attendees at Hochstetter lecture tour	343	258
Attendees at Hochstetter support lecture	75	47
Grants and Awards made	24	24
Awards Trust – Awards made	9	12
Awards Trust – Awards value (\$)	12,550	7,666

### Additional Information

The Society is ever grateful for donated funds towards student prizes and research awards. For instance, in 1997, funds were donated to the Society by a Mr Sid Hastie, who said "I decided to provide funds for a geology scholarship to foster and encourage an interest in geology in the hope that others will find as much pleasure in the study of geology as I have. The knowledge I have gained and the friends I have made as a result of my interest and curiosity in this fascinating subject have added greatly to my enjoyment of life". This is one of the annual Awards to Masters/Honours level students, one from each University.

## Statement of Financial Performance

Consolidated Accounts of Geoscience Society of New Zealand  
Incorporated & Awards Trust  
For the year ended 31 March 2024

'How was it funded?' and 'What did it cost?'

<b>Account</b>	<b>Notes</b>	<b>Group 2024</b>	<b>Group 2023</b>
<b>Revenue</b>			
Donations, fundraising and other similar revenue	1	0	490,103
Fees, subscriptions and other revenue from members	1	46,627	47,347
Revenue from providing goods or services	1	15,707	7,443
Interest, dividends and other investment revenue	1	65,449	30,045
Other Revenue	1	29,274	12,400
<b>Total Revenue</b>		<b>157,057</b>	<b>587,337</b>
<b>Expenses</b>			
Costs related to providing goods or service	2	58,377	46,804
Grants and donations made	2	22,926	25,785
Other expenses	2	3,891	7,316
<b>Total Expenses</b>		<b>85,194</b>	<b>79,905</b>
<b>Surplus/(Deficit) for the Year</b>		<b>71,863</b>	<b>507,433</b>

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

## Statement of Financial Position

Consolidated Accounts of Geoscience Society of New Zealand Incorporated  
& Awards Trust

As at 31 March 2024

'What the entity owns?' and 'What the entity owes?'

<b>Account</b>	<b>Notes</b>	<b>Group 31 Mar 2024</b>	<b>Group 31 Mar 2023</b>
<b>Assets</b>			
<b>Current Assets</b>			
Bank accounts and cash	3	150,707	88,114
Debtors and prepayments	3	9,187	14,437
Inventory	3	3,992	5,418
Goods and services tax	3	1,770	1,191
Term Deposits (current)	3	725,228	763,915
<b>Total Current Assets</b>		<b>890,883</b>	<b>873,075</b>
<b>Non-Current Assets</b>			
Investments	3	606,277	555,120
<b>Total Non-Current Assets</b>		<b>606,277</b>	<b>555,120</b>
<b>Total Assets</b>		<b>1,497,160</b>	<b>1,428,195</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Creditors and accrued expenses	4	0	2,898
Recognised accumulated donations and grants	4	0	31,927
<b>Total Current Liabilities</b>		<b>0</b>	<b>34,825</b>
<b>Total Liabilities</b>		<b>0</b>	<b>34,825</b>
<b>Total Assets less Total Liabilities (Net Assets)</b>		<b>1,497,160</b>	<b>1,393,370</b>
<b>Accumulated Funds</b>			
Accumulated surpluses or (deficits)	5	938,319	871,680
Reserves	5	558,841	521,690
<b>Total Accumulated Funds</b>		<b>1,497,160</b>	<b>1,393,370</b>

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

## Statement of Cash Flows

Consolidated Accounts of Geoscience Society of New Zealand  
Incorporated & Awards Trust  
For the year ended 31 March 2024

<b>Account</b>	<b>Group 2024</b>	<b>Group 2023</b>
<b>Cash Flows from Operating Activities</b>		
Donations, fundraising and other similar receipts	0	490,103
Fees, subscriptions and other receipts from members	47,566	46,751
Receipts from providing goods or services	15,811	7,191
Interest, dividends and other investment receipts	63,560	23,598
Cash receipts from other operating activities	60	128
GST	(31)	(2,795)
Payments to suppliers and employees	(58,502)	(59,720)
Donations or grants paid	(22,616)	(24,832)
<b>Total Cash Flows from Operating Activities</b>	<b>45,849</b>	<b>480,423</b>
<b>Cash Flows from Investing and Financing Activities</b>		
Receipts from sale of investments	529,456	460,000
Payments to purchase investments	(490,769)	(1,078,123)
Cash flows from other investing and financing activities	(21,943)	(542,660)
<b>Total Cash Flows from Investing and Financing Activities</b>	<b>16,744</b>	<b>(1,160,783)</b>
<b>Net Increase/(Decrease) in Cash</b>	<b>62,593</b>	<b>(680,360)</b>
<b>Bank Accounts and Cash</b>		
Opening cash	88,114	768,474
Net change in cash for period	62,593	(680,360)
Closing cash	150,707	88,114

This statement has been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

## **Statement of Accounting Policies**

Consolidated Accounts of Geoscience Society of New Zealand Incorporated & Awards Trust

For the year ended 31 March 2024

### **'How did we do our accounting?'**

#### **Basis of Preparation**

The entity has elected to apply PBE SFR-A (NFP) Public Benefit Entity Simple Format Reporting - Accrual (Not-For-Profit) on the basis that it does not have public accountability and has total annual expenses equal to or less than \$2,000,000. All transactions in the Performance Report are reported using the accrual basis of accounting. The Performance Report is prepared under the assumption that the entity will continue to operate in the foreseeable future.

These are consolidated accounts incorporating Geoscience Society of New Zealand Incorporated and Geoscience Society of New Zealand Awards Trust.

#### **Goods and Services Tax (GST)**

The entity is registered for GST. All amounts are stated exclusive of goods and services tax (GST) except for accounts payable and accounts receivable which are stated inclusive of GST.

#### **Income Tax**

Geoscience Society of New Zealand Incorporated is wholly exempt from New Zealand income tax having fully complied with all statutory conditions for these exemptions.

#### **Bank Accounts and Cash**

Bank accounts and cash in the Statement of Cash Flows comprise cash balances and bank balances (including short term deposits) with original maturities of 90 days or less.

#### **Changes in Accounting Policies**

There have been no changes in accounting policies. Policies have been applied on a consistent basis with those of the previous reporting period.

**Notes to the Performance Report**  
Geoscience Society of New Zealand Incorporated  
For the year ended 31 March 2024

<b>Account</b>	<b>Group 2024</b>	<b>Group 2023</b>
<b>1. Analysis of Revenue</b>		
<b>Donations, fundraising and other similar revenue</b>		
Donations	0	479,553
Student Travel	0	50
Sponsorship	0	10,500
<b>Total Donations, fundraising and other similar revenue</b>	<b>0</b>	<b>490,103</b>
<b>Fees, subscriptions and other revenue from members</b>		
Subscriptions	46,627	47,347
<b>Total Fees, subscriptions and other revenue from members</b>	<b>46,627</b>	<b>47,347</b>
<b>Revenue from providing goods or services</b>		
Conference Income	11,267	3,333
Sales	3,790	3,636
Sundry income	0	273
Website Advertising	650	200
<b>Total Revenue from providing goods or services</b>	<b>15,707</b>	<b>7,443</b>
<b>Interest, dividends and other investment revenue</b>		
Interest Income	43,566	18,325
Westpac Active Series Moderate Trust PIE Income	21,883	11,720
<b>Total Interest, dividends and other investment revenue</b>	<b>65,449</b>	<b>30,045</b>
<b>Other Revenue</b>		
Unrealised Gains on Investments	29,274	12,400
<b>Total Other Revenue</b>	<b>29,274</b>	<b>12,400</b>
	<b>2024</b>	<b>2023</b>
<b>2. Analysis of Expenses</b>		
<b>Costs related to providing goods or services</b>		
Administration & Office Expenses	31,465	29,198
Advertising	0	262
Bank & Merchant Fees	85	95
Cost of Goods Sold	1,426	4,138
Committee Meetings & Expenses	2,145	2,975
Computer Expenses	0	213
Conference Costs	7,977	0
Freight & Courier	23	0
General Expenses	348	875
Hochstetter's Auckland Diary	2,000	0
Hochstetter / Lecture Tours	217	4,361
Honorarium	1,500	0
Insurances	1,600	1,354
Newsletters	5,117	5,411
Printing & Stationery	(1,591)	169
Publication Costs	5,804	(2,248)
Uni Geoscience Student Associations	261	0
<b>Total Costs related to providing goods or services</b>	<b>58,377</b>	<b>46,804</b>
<b>Grants and donations made</b>		
Branch Grants	2,327	4,031
Grants and Awards	249	1,644
Kingma Award	250	250
Miscellaneous Awards	50	6,194
Young Researcher Travel Award	7,500	6,000
<b>Awards Trust</b>		
Grants and Awards	4,000	0
Harold Wellman Prize	250	220
Hastie Grants	2,000	1,500
Hayward Communication Award	550	530
Hornibrook Award	1,000	0

These notes been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.

**Notes to the Performance Report**  
Geoscience Society of New Zealand Incorporated  
For the year ended 31 March 2024

Jim Ansell Geophysics Scholarship	1,000	1,000
NZ Geophysics Prize	400	400
Pullar-Vucetich Prize		691
Wellman Research Award	3,000	3,000
Werner Giggenbach Prize	350	325
<b>Total Grants and donations made</b>	<b>22,926</b>	<b>25,785</b>
<b>Other expenses</b>		
Audit & Accounting Expenses	3,538	6,835
Administration	353	396
General Expenses	0	85
<b>Total Other expenses</b>	<b>3,891</b>	<b>7,316</b>
	<b>2024</b>	<b>2023</b>

**3. Analysis of Assets**

<b>Bank accounts and cash</b>		
Westpac Inc & Exp Acct	25,831	28,363
Westpac Inc & Exp Savings	97,000	18,368
Awards Trust - Current Account	1,244	10,538
Awards Trust - Savings Account	26,632	30,845
<b>Total Bank accounts and cash</b>	<b>150,707</b>	<b>88,114</b>
<b>Debtors and prepayments</b>		
Accounts Receivable	262	7,402
Accrued Interest	8,924	7,034
<b>Total Debtors and prepayments</b>	<b>9,187</b>	<b>14,437</b>
<b>Inventory</b>		
Stock on Hand	3,992	5,418
<b>Total Inventory</b>	<b>3,992</b>	<b>5,418</b>
GST	1,771	1,191
<b>Term Deposit</b>		
Westpac Term Deposit - 0003	156,599	148,907
Westpac Term Deposit - 0004	42,658	40,552
Westpac Term deposit - 0006	0	464,456
Westpac Term Deposit - 0007	411,955	0
Awards Trust - Westpac Term Deposit - 0013	114,015	110,000
<b>Total Term Deposit</b>	<b>725,228</b>	<b>763,915</b>
<b>Investments</b>		
Westpac - Active Series Moderate Trust Fund	606,277	555,120
<b>Total Investment</b>	<b>606,277</b>	<b>555,120</b>
	<b>2024</b>	<b>2023</b>

**4. Analysis of Liabilities**

<b>Creditors and accrued expenses</b>		
Accounts Payable	0	2,898
<b>Total Creditors and accrued expenses</b>	<b>0</b>	<b>2,898</b>
<b>Recognised accumulated donations and grants</b>		
Award Funds	0	12,698
Continent on the Move #2	0	4,704
SAGE Geographics Fund	0	6,565
Stout Trust Grant - Lloyd Homer Book	0	7,960
<b>Total Recognised accumulated donations and grants</b>	<b>0</b>	<b>31,927</b>

These notes been prepared without conducting an audit or review engagement, and should be read in conjunction with the attached Compilation Report.



# Notes to the Performance Report

Geoscience Society of New Zealand Incorporated  
For the year ended 31 March 2024

2024 2023

## 5. Accumulated Funds

Accumulated Funds		
Opening Balance	871,680	380,185
Transfer in from Grants with Conditions	31,927	0
Allocation of Income & Expenses to Reserves	(37,151)	(15,938)
Accumulated surpluses or (deficits)	71,863	507,433
<b>Total Accumulated Funds</b>	<b>938,319</b>	<b>871,680</b>
<b>Total Accumulated Funds</b>	<b>938,319</b>	<b>871,680</b>

## 6. Breakdown of Reserves

Reserves		
General Award Reserve	154,012	157,620
Hastie Award Reserve	155,965	144,277
Hayward GeoCommunication Award Reserve	71,309	56,288
NZGeMs Awards Reserve	36,817	32,361
Wellman Awards Reserve	140,738	131,144
<b>Total Reserves</b>	<b>558,841</b>	<b>521,690</b>

## 6. Commitments

There are no commitments as at 31 March 2024 (Last year - nil).

## 7. Contingent Liabilities and Guarantees

There are no contingent liabilities or guarantees as at 31 March 2024 (Last year - nil).

## 8. Related Parties

There were no transactions involving related parties during the financial year (Last year - nil).

## 9. Events After the Balance Date

There were no events that have occurred after the balance date that would have a material impact on the Performance Report (Last year - nil).

## 10. Ability to Continue Operating

The entity will continue to operate for the foreseeable future.

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Compilation Report.

