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NZ Association of Scientists Submission on the Dept. of Geology Review, University of Otago

This submission is from the New Zealand Association of Scientists (NZAS) and reflects the views of the Association. We are an independent association of scientists who work and lobby to promote science in New Zealand, increase public awareness of science and expose pseudo-science, debate and influence government science policy, improve working conditions for scientists, including gender and ethnic equality, promote free exchange of knowledge and international co-operation, and encourage excellence in science.

The Association wishes to convey its disappointment with the potential cutting of a significant number of positions – both academic and support - in the University of Otago's Department of Geology. Geology is one of the foundation sciences for Aotearoa New Zealand. **To reduce the capacity and capability in this field seems at odds with the climate challenges facing both the Otago region and New Zealand in general.**

With cuts of this scale there is a risk of losing the characteristic of a university as defined in the Education and Training Act 2020. Specifically, clause 282 (d),(i),(B) "their research and teaching are closely interdependent and most of their teaching is done by people who are active in advancing knowledge:" (C) "they meet international standards of research and teaching", (D) "they are a repository of knowledge and expertise:" and (ii) (A) "a university is characterised by a wide diversity of teaching and research, especially at a higher level, that maintains, advances, disseminates, and assists the application of knowledge, develops intellectual independence, and promotes community learning:" Additionally, clause 369 (2),(a) says that the council should "consider national and regional interests". The Department of Geology helps address issues that are most obviously of national and regional interest, especially in relation to climate change and hazards, as well as marine resources and environment..

With regard to these legislative expectations of universities, we specifically request that the university provide a public statement transparently identifying the degree to which there has been coordination across the sector to ensure that areas of expertise of national, regional and topical importance have been considered. This needs to identify that there has been coordination between universities making cuts in similar disciplines. It is also important for the sector to identify where losses are a result of failures to obtain competitive research funding vs student numbers. We request this statement based on the observation that there is support for research, science and innovation but only if needs, and pathways for change, can be transparently identified.

Clearly, there are external forces at play and difficult decisions need to be made. We have written a number of similar letters lately and recognise that the issue is fundamentally systemic. Be that as it may, we ask you to consider the longer term and look for solutions to the present financial pressures

that find ways to retain as much of the research skills and knowledge as possible – for the nation’s sake.

Having examined the situation at Otago specifically, we have the following points.

1. The university should be applauded for reasonable willingness to be open and transparent about the process, which may have important implications for NZ’s overall response to issues of national importance including climate change, hazards, and the management of resources in our nation’s vast marine domain. However, the following two points suggest the restructuring proposal was formed with inadequate understanding of the nationally and regionally significant expertise in relation to the challenges facing current and future generations. To prevent a lack of understanding of areas national and regional significance from undermining expertise held by and the training undertaken by the Department of Geology, **we recommend that the additional senior academic in the Selection Panel proposed in Appendix A have relevant expertise and be expanded to two experts if required by breadth or potential conflicts of interest.** We also recommend the membership of this panel be declared and exposed to concerns in advance of the selection process.

We also express two concerns that benefit from scrutiny and further comment from the public and scientific community:

2. The proposal and criteria for selections in Appendix A lacks clarity of how research funding or research success is important. Yet research should be expected to lead universities toward future issues of national importance and attract students to the areas, such as climate change, where decades of careers will be needed. The Geology department ranked at the top of Otago’s science disciplines in the last PBRF evaluation. It has achieved the success in funding major research programmes that would be expected from this. Why undermine this with a proposal that discounts research from clear consideration? **We recommend the insertion of an additional research criteria for selection: demonstrated success in obtaining funding for and carrying out research of national or regional significance, and potential to convert research success into growth areas for graduate and postgraduate training.**
3. The ring-fencing of an unhired new position in palaeontology during a restructuring is puzzling and may point to a lack of care or understanding in the proposal. The sub-discipline of geology has moved on from macroscopic museum specimens and swashbuckling fossil discoveries. Moreover, the statement that the university “no longer has any permanent academic specialist” misses the mark unless it defines paleontology narrowly and traditionally. The university has three more modern and useful palaeontologists, working in areas of microfossils, ancient DNA, and teeth preserved in geologic and archaeological samples. It appears these academics can provide the required teaching in paleontology and are well placed to contribute dynamic and successful research programmes. By contrast, the leading justification for funding and careers in traditional paleontology has been the geological timescale and nature of rocks representing coal, petroleum and gas resources – areas clearly decreasing in need as climate change is addressed. Geological timescale and related issues are important but planned national consolidation of collections and expertise should be coordinated across institutions. When we think about climate change, hazards and environments, please consider the degree to which the ring-fencing of an unhired paleontology position looks destructive of both needed capability and the university’s

reputation. This looks like going in the wrong direction for the wrong reasons, or perhaps clinging to the past – rather than using understanding of the past to look after our present and future decisions. **We recommend removing the ring-fenced paleontology position from being ‘out-of-scope’ – either eliminating it entirely or requiring it to stand on its merits in the selection process defined in Appendix A.**

Across all the concerns raised here, there appear to be reasons to change or delay the planned restructuring, pending better information and the potential for collaboration with other institutions including GNS Science, museums and universities. We also support the need to make the case for improved funding for areas of clear national research priority. We encourage care and precaution, weighted to the degree that Otago’s Geology discipline and wider capability is considered to be of national importance. Changes may have to be made but greater care should be taken in proceeding – the future of our responses to climate change, hazards and the resource-environment tradeoff in our vast domains of New Zealand’s ocean estate hang in the balance.

Our thoughts go to the people being affected by this process – people who have dedicated years of service to the university. Regardless of the outcome it is a difficult and demoralising time, and the impact will be felt for years.

Sincerely on behalf of the Association



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