

Appendix 4: Technical commentary of Steven Woods

As requested, I have reviewed the Eliot Sinclair report Redcliffs School: Rockfall Hazard Mitigation (Report number 412368) and the Board of Trustees submission dated 31 March 2016. I have limited my review comments to the high level issues addressed by the report and my views on those issues.

I have arranged my comments against the seven points set out in section 13.2 of the Eliot Sinclair (ES) report.

(1) The potential for future disruption to education due to rockfall hazard

I agree with the ES statement that achieving no risk of disruption for Redcliffs (or any other) school is not achievable and that the risk of disruption due to rockfall is extremely low. This view is due to the increased distance allowed between the cliffs and the school site and greater clarity, compared to one year ago, that the regulating authority for any hazard mitigation works will be the Christchurch City Council via a Building Consent process. Furthermore I believe that the greatest risk of rockfall disruption to schooling is due to the cliffs above Main Road. From this perspective a school located in say, Sumner has a greater risk of disruption than one in Redcliffs because of the larger exposure of the road network to steep nearby cliffs.

(2) Circumstances that could give rise to potential disruption.....cannot be ruled out

I agree with the ES statement that while disruption due to rockfall cannot ever be completely ruled it can be mitigated and should be compared to other risks of disruption that Redcliffs and all other schools are exposed to.

(3) Which agency or agencies would be responsible for deciding on a return to the site following a major event?

It now appears that decisions regarding returning to the school can be managed by the Board of Trustees within the bounds of conditions that would be established during the Building Consent process. I cannot comment on any special powers that organisations may have following a major event that could over-rule this process. However, for such special powers to exist the event would be of such a scale that disruption would be likely across the city and I see no reason why Redcliffs School would be any more subject to special consideration than other schools in Christchurch.

(4) The private ownership of the land behind the school.

This does not appear to be an issue with all works proposed on school land unless a resource consent for the barrier was required and it impacted on the amenity values of private land

owners. Given the proposed location and scale of the barrier this does not appear to be a significant issue.

(5) No agency is currently monitoring the cliff face.

I agree with the ES conclusion that monitoring of the cliff face is of no real benefit given that the scenarios considered by GNS in their rockfall modelling assumes extremely large scale failures beyond the scale of what has happened to date. No such monitoring of the cliff face was proposed as part of the MWH solution either.

(6) The likely timing of a return to the Main Road site re removal of the houses from the cliff top.

I understand this is now largely resolved by the removal of all but a small number of houses.

(7) It has already been five years since the school was on its site. It could be several more years.

I agree with the ES statement that the five years has been necessary in order for GNS to progress research to the point that there is limited or no more work that could be done to better understand the hazard. Now that there appears to be greater clarity that regulatory authority for the works would be via a Christchurch City Council Building Consent there does not appear to be impediments to the project progressing on a timeframe consistent with any building project.

I believe that there are still matters of detail around barrier size location and monitoring to be resolved, however, ES acknowledge this in point 2, section 15 of their report and they would be resolved through a conventional detailed design process in consultation with the Board of Trustees and Ministry of Education.