

## **Education Report: Feasibility and Psychosocial Investigation for Redcliffs School (3483)**

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### **Executive Summary**

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1. This report outlines the findings of an analysis of the feasibility of relocating Redcliffs School to an alternative site in Redcliffs, and an investigation into the possible psychosocial implications of returning the school to its original Main Road site, given the proximity of the school to the cliff face where there will be ongoing rockfalls behind the proposed protective bund.
2. The Ministry has worked with the Board to undertake the investigation into psychosocial implications. The process involved the development of a scoping document, gathering four opinions from experts in the area, and commissioning a literature review.
3. The general outcome from the investigation was that while there are potential negative psychosocial effects of a return to the Main Road site, these could be effectively mitigated for most children provided that appropriate strategies were adopted and maintained by parents, teachers and the Board.
4. The Ministry also worked with the Board to undertake the feasibility analysis into an alternative site for Redcliffs School. The Ministry's two stage methodology for new school site evaluation was used to identify and assess potential alternative sites. The first stage of the methodology identified three possible locations, with a total of eight different sites across those three locations (four on Barnett Park, three on Redcliffs Park, and one on McCormacks Bay Reserve). Each site was then scored against the 20 Stage 2 criteria of the methodology. One of the sites on Redcliffs Park (Redcliffs Park C) was the highest scoring option. Based on the information gathered through the investigation, we consider that relocation of the school to one of the Redcliffs Park locations is a feasible option.
5. Regardless of site, the rebuild of Redcliffs School is a major investment of Crown funds, and the Ministry has to carefully consider which site provides for the most prudent and optimal investment. Indicative costings for the different sites are included, and a build on Redcliffs Park C would be marginally more costly than a full rebuild on the Main Road site, while Redcliffs Park A and B would be less costly than a full rebuild on the Main Road site (not including site acquisition costs). Acquisition of Redcliffs Park could be progressed without a decision on the final site on Redcliffs Park, with further investigation to identify the optimal location for school infrastructure.
6. Relocation to Redcliffs Park would provide a larger site than the original Main Road site (1.91ha cf. 1.44ha), which would better accommodate future roll growth and would allow for co-location opportunities in the future.

7. Dependent on where the school was located on Redcliffs Park, it could remove the requirement for the rockfall mitigation measures proposed by Eliot Sinclair for the Main Road site and monitoring of the cliff face. If this were the case, it is likely it would similarly eliminate the need for ongoing mitigation of potential psychosocial effects on children identified by the expert advisors. While you have previously agreed that potential maintenance of the proposed rockfall mitigation measures would be manageable, relocating to Redcliffs Park would eliminate the need for this.
8. A timeframe for relocation is provided, with a relocation to a site at Redcliffs Park likely to be able to occur for Term 3 2019 compared to a rebuild on the original Main Road site by the beginning of 2019. It could be possible to reopen on the Main Road site by Term 3 2018 with a partial rebuild.
9. The cost of the redevelopment was included in the business case which was agreed by Cabinet on 20 August 2012. The Ministry considers that relocation to Redcliffs Park provides better long term advantages compared with the Main Road site, and recommends that Redcliffs School should relocate to a site on Redcliffs Park.

### Recommended Actions

We recommend that you:

- a. **note** that the Ministry has undertaken:
  - a. A further investigation into the potential psychosocial implications for children attending school at the Main Road site with the proposed mitigation measures in place; and
  - b. A feasibility analysis on whether relocation within a suitable timeframe to another site within the Redcliffs community is likely to be a realistic option.
- b. **note** that the Ministry worked with the Board to progress these investigations;
- c. **note** the opinions provided by the four independent experts in relation to the potential psychosocial implications associated with the Main Road site;
- d. **note** that on the basis of the feasibility analysis, the Ministry considers that relocation to Redcliffs Park is likely to be a realistic option for the school;
- e. **note** that the Ministry considers that relocation provides better long term advantages for the investment of Crown funds than a return to the Main Road site;
- f. **note** that the Board of Redcliffs School will provide you with its commentary on this draft Education Report by Monday 10 October;

And:

- g. **agree** that Redcliffs School should relocate to Redcliffs Park;

AGREE / DISAGREE



- h. **note** that if you agree the Ministry would work with experts to carry out the required due diligence on Redcliffs Park as a whole, to enable detailed analysis to be undertaken on the optimal placement for school infrastructure. The Ministry will also work with the Christchurch City Council to progress the site purchase and identify any further opportunities for reducing the acquisition timeframe;
- i. **note** that we will involve the BoT and Community in developing the plan for the school;
- j. **note** that the original Main Road site would be retained until there is certainty that Redcliffs Park can be acquired;

**note** the build and associated costs of the project will come from the Greater Christchurch Education Renewal Programme;

**And**

- k. **note** that a letter will be developed for your signature to the school Board of Trustees once your decision is known; and
- l. **agree** that a copy of this report be released to the Board of Trustees of Redcliffs School, and later released publicly.

AGREE / DISAGREE

Kim Shannon  
Acting Deputy Secretary  
Sector Enablement and Support

Encls

Hon Hekia Parata  
Minister of Education

17/19/16

## Education Report: Feasibility and Psychosocial Investigation for Redcliffs School (3483)

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### Purpose of Report

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1. The purpose of this report is to advise you on the outcomes of a feasibility analysis of relocating Redcliffs School to an alternative site in Redcliffs, and the results of an investigation into the possible psychosocial implications of returning the school to its original Main Road site.
2. The rationale for the investigation is outlined in your letter to the Redcliffs School Board of Trustees on 7 July 2016, which stated that *"If the school could be relocated, this would address both the Board's concerns about potential negative psychosocial effects that closure could have on the community, as well as the possible negative effects for children if the school returned to the Main Road site... An alternative site could also mean that the school did not have to compromise its space and would not have to manage the ongoing risks posed by the cliffs. It would mean that future generations of Redcliffs children would be able to go to school on an ordinary site, where they would not have to deal with the threat of ongoing rockfall behind the site."*
3. The report also sets out the Ministry's recommendation that the school should relocate to another site in the Redcliffs area, and not return to the Main Road site.

### Background

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4. Redcliffs School is a Year 1 – 8 full primary school, originally located in Redcliffs, Christchurch, in the Port Hills electorate. It had a provisional July 2016 roll of 189 students.
5. Following the Christchurch earthquakes and consequent cliff collapse and debris inundation on and above parts of the school property, Redcliffs School was relocated in 2011 to Sumner School and then to Van Asch Deaf Education Centre. School transport is being provided from the Redcliffs area to the Van Asch site in Sumner, which is outside the Redcliffs School catchment area.
6. On 23 March 2015 you announced a proposal to close Redcliffs School.
7. Following consultation on your proposal, on 25 November 2015 you made an interim decision that Redcliffs School should close. You made this decision because, following consideration of expert geotechnical advice, you were concerned about the potential for disruption to education provision in the future. You were also concerned about the uncertainty of the likely timing of the school's proposed return to its original site. The Education Act required that the Board be given 28 days to provide any further arguments in favour of the school staying open. The Board was given an extended period of time to put forward its arguments and delivered its submission on 31 March 2016.



8. The Board's submission of 31 March 2016 set out expert technical advice, put forward a new mitigation strategy to address both safety and disruption risk from rock fall, raised the issues of psychosocial impact and transport considerations, and proposed that if you did not consider the Main Road site to be suitable, Redcliffs School should be relocated rather than closed.
9. The submission was accompanied by a technical report prepared by Eliot Sinclair, which proposed a new mitigation solution to reduce the potential for disruption to a negligible level. The solution is to retreat the utilised area of the school site further from the cliff than had previously been recommended, along with an alternative bund design and location. The revised location of the bund would allow access behind it for assessment, maintenance and clearing of debris if required. Eliot Sinclair considered that the alternative solution would also remove the need for ongoing monitoring of the cliff face.
10. The Ministry commissioned a peer review of the Eliot Sinclair report by engineering firm Tonkin & Taylor, and also requested expert opinions about the report from technical advisors who have previously advised the Ministry on the Main Road site. The analyses provided by the Ministry's technical experts broadly supported the conclusions of the Eliot Sinclair report. Tonkin & Taylor agreed that "the level of life risk to school users" with the proposed mitigation works in place would be "sufficiently low that rockfall risk should not preclude occupying the school" and the consensus was that the concerns about potential disruption to education provision in the future had been adequately addressed by the Board's proposed new mitigation plan.
11. On 7 July 2016 you met with Board representatives to inform them that the consultation process had adequately addressed your two main reasons for closure.
12. Accordingly, you informed the Board that you were not confirming your interim decision that the school should close, and the consultation process under section 154 of the Education Act was at an end.
13. In its report to you (METIS 1007210 refers), the Ministry advised that there were two additional matters that were raised during the consultation process that required further consideration before a decision was made about whether Redcliffs School should return to the Main Road site. The Ministry advised, and you agreed, that the Ministry would engage with the Redcliffs School Board of Trustees to undertake and report to you by the end of September 2016 on:
  - A further investigation into the potential psychosocial implications for children attending school at the Main Road site with the proposed mitigation measures in place; and
  - A feasibility analysis on whether relocation within a suitable timeframe to another site within the Redcliffs community is likely to be a realistic option.

## Investigation Process

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14. The Ministry and Board of Trustees of Redcliffs School have worked together to carry out this further investigation into the feasibility of relocation to another site in Redcliffs, and the potential psychosocial implications of returning to the Main Road site.

15. A steering group was formed which comprised of:
  - Two representatives of the Ministry of Education
  - Four representatives of the Board of Trustees
  - One representative of the Christchurch City Council (CCC)
16. This group met regularly face-to-face, as well as communicating in writing between meetings. This group contributed to the development of a project plan and scope for carrying out the feasibility analysis and psychosocial investigation, and has been involved in considering and providing feedback on draft technical and expert reports.
17. The project plan stated that the roles of the directly involved parties are:
  - Ministry of Education – will be the report author, and the commissioning party for independent experts.
  - Board of Trustees – will be the key stakeholder, and will be involved in communicating with the school community where appropriate (some project content will be commercially sensitive and may not be able to be directly shared)
  - CCC – as the landowner of possible sites in Barnett Park and Redcliffs Park.
18. The CCC has had the opportunity to consider the technical and expert reports, and has provided the Ministry with background information on Barnett Park and Redcliffs Park, as well as timeframes for acquisition or exchange of land. The CCC advised that the long lead time for scheduling hearings meant it was better to tentatively schedule a hearing date in advance, which could be cancelled if your decision was to return the school to the Main Road site. The CCC steering group representative has scheduled a hearing slot, which the Ministry will cancel or confirm on your behalf once your decision is known.
19. The Board of Trustees has had the opportunity to consider the technical and expert reports, and the substantive content of this current Education Report. In accordance with the constitutional conventions on confidentiality of advice, the Board has been advised that certain sections of this report have not been disclosed for its comment. The Ministry met with the Board on 30 September and has addressed some of its initial comments from that meeting in this report. The Board additionally intends to provide you with its own commentary by Monday 10 October

### Psychosocial implications of a return to the Main Road site

20. The Board's submission of 31 March 2016 in response to your interim decision for closure contained a section on the negative psychosocial impact on the Redcliffs community if Redcliffs School were to close, and included a number of appendices from experts in this area.



21. The Ministry requested Dr Harith Swadi, Clinical Director of Child, Adolescent and Family Services at the Canterbury District Health Board to review whether the submission was an accurate and appropriate interpretation of the content of the submission appendices (METIS 1007210 paras 101 – 108 refer). The Ministry further requested that Dr Swadi comment on the psychosocial impact on children of occupying a site where there will be further rockfall adjacent to the site. You raised concerns about this at your meeting with the Board on 9 May 2016.
22. Dr Swadi concluded that the closure of the school may lead to negative and positive psychosocial effects on the Redcliffs community, but also that a return to the Main Road site may lead to negative psychosocial effects for children attending the school. He noted that the school remaining open on a site other than the Main Road site could address both of these potential sources of negative psychosocial impact.
23. The Ministry recommended, and you agreed, that further investigation should be undertaken into potential negative psychosocial effects for children attending school at the Main Road site.

#### **Scope and methodology**

24. The Ministry drafted a proposed scoping document for the investigation into potential psychosocial effects, and worked with the Board's Steering Group representatives to revise this scope until all members agreed with its final form and content, with one exception, addressed later in this report. The agreed scope that was provided to experts is attached as Appendix 2.
25. The Ministry and Board both obtained the names of individuals who could contribute an expert opinion to this project, and the Ministry contacted these individuals to further discuss their relevant expertise and availability. In some cases, the individuals were unable to participate due to a lack of availability or relevant experience, but contributed the names of other suitable individuals. At the completion of this process, four experts were engaged to provide opinions in response to the investigation scope:
  - Dr Rob Gordon, Consultant Psychologist, Victoria, Australia, and author of Appendix 17 of the Board's 31 March 2016 submission
  - Associate Professor Sarb Johal, Associate Professor for Disaster Mental Health, Joint Centre for Disaster Research, Massey University
  - Dr Harith Swadi, Consultant Child and Adolescent Psychiatrist and Clinical Director, Mental Health Service, CDHB
  - Professor David Johnston, Director Joint Centre for Disaster Research, GNS Science and Massey University
26. The Ministry also engaged Dr Carol MacDonald, a research affiliate of the Joint Centre for Disaster Research, to undertake a literature review of relevant literature. Dr MacDonald was also asked to provide a synthesis of the four experts' reports as an aid to reviewing their advice. The experts' reports are attached as Appendix 3a. The literature review and synthesis is attached as Appendix 3b.
27. The Ministry arranged a technical briefing for the four experts about the Main Road site. This was provided by Nick Harwood, the author of the Elliot Sinclair report which formed Appendix 8 of the Board's 31 March 2016 submission.

28. Nick Harwood presented information to the experts which included the proposed mitigation strategy, the likely frequency and scale of rockfall events adjacent to the site, how the site relates to surrounding land zones, the size and visual effects of the proposed mitigation strategy, and how rockfall risk compares to other relevant risks.
29. He also provided summary notes covering the following topics:
- Outline of proposed briefing document re school land safety
  - Risk context and exposure
  - Notes on rationale for preliminary bund design
  - Terminology and messaging
30. Following the technical briefing, the experts visited the Main Road site, as well as other locations in the Bays area. Dr Rob Gordon joined the technical briefing via Skype from Australia, and so was not present for the site visit.
31. The exception to the agreement with the scoping document is that the Board wished the investigation to be comparative in nature and to be placed '*in context of the other schools in the area*'. The Board has recorded its objection that this investigation did not consider other nearby schools. Specifically, the Board wished the scope to include the question '*Would any negative effects be any more prevalent at Redcliffs than at other nearby schools that would also suffer visual and auditory effects of rock fall and rock roll?*'
32. The Ministry considered that this was outside the scope of the investigation, which related specifically to potential concerns with returning this school to the Main Road site.

***Experts' views: Main Road site***

33. The experts were asked to consider two main questions:
- What is the likelihood of any significant negative psychological or psychosocial effects on children of returning Redcliffs School to the Main Road site, having regard to the context of living in the Bays area and the expert technical advice that, while there will be ongoing rockfall, with the mitigation in place, there is no actual physical danger to people on the school grounds?
  - If any such (negative psychological or psychosocial) effect is possible, can it be adequately mitigated?
34. The experts' overall conclusions on the questions were as follows:
- a. Dr Gordon concluded: "the likelihood of any significant psychological or psychosocial effects on children returning to Redcliffs School at the Main Road site seems negligible, provided that teachers and parents ensure that they work together to influence the children's understanding of the situation, encourage them to gain a sense of mastery and control over the situation based on the lack of danger; and they use it as a basis for increasing the children's understanding. This does not preclude the existence in the school of a small number of children who may be anxiety prone and associate their anxiety with the rockfall." He also noted that anxiety prone children may encounter non rockfall-related aspects of other schools or school sites that also provoke anxiety.



- b. Dr Swadi concluded: "For the current residents of Redcliffs, and with the mitigation in place, it is highly likely that there will not be a significant amount of psychological stress and/or distress as a result of a return to the old school site. That will be influenced by how confident, engaged and empowered the community feels about the mitigation measures. How this is communicated to the community is the key. Given the level of engagement and trust the School and the School Board has with the community, I believe it is possible for that to be achieved." Dr Swadi also stated: "The risk cannot be entirely eliminated but can be effectively minimised and managed."
  - c. Associate Professor Sarb Johal concluded "[a]lthough, continuous traumatic stress maybe a consideration for a few, I am also satisfied that steps can be taken to mitigate this risk, and to deal with any consequences as they may arise."
  - d. Professor Johnston did not express a conclusion on the questions.
35. The experts stressed the importance of family as a mitigation measure. The role of family was described by Associate Professor Sarb Johal as "probably the most important factor ... in terms of conferring protection or increasing vulnerability of children". Parents who are able to provide a model of warmth, support, consistency and predictability can decrease a child's vulnerability, whereas a distressed parent can increase a child's vulnerability. Dr Swadi stated that it is "the parents/family who will determine the children's sense of safety at the school site".
36. The role of teachers was also recognised as important. Teachers are seen as trusted sources of information, readily accessible, and are a constant relationship in a child's life. However, teachers require support in this task. Suggestions for supporting teachers included training on how to discuss the rockfall with children and a detailed briefing of why the risk has been successfully mitigated.
37. The experts emphasised that adequate mitigation also requires effective risk communication strategies. Specific suggestions from the experts for communicating were as follows:
- a. Professor Johnston expressed the view that communication strategies should include a variety of activities (e.g. effective messaging, community meetings, scenario building, school and work activities, drills and exercises, training etc.) to target and build on different resilience factors and to account for the differing stages of readiness of members of the public.
  - b. Associate Professor Sarb Johal and Dr Gordon suggested integrating social and emotional learning about living with rockfall risk into curricula. Dr Gordon noted discussions, teaching and sensitive support to the children to understand the nature of the landscape and the ability of the adults to make it safe is likely to need to be repeated throughout the years as children progress through the school. Further, teachers should discuss the approach to rockfall with parents and help advise parents how to reinforce the teachers' messages.
  - c. Associate Professor Sarb Johal also suggested developing a publically accessible "living" FAQ that is accessible for students and their families, and ensuring that there is a good process for listening to community concerns, with agreed points acted on swiftly and results communicated to all.



- d. Dr Swadi suggested concerned parents should have an opportunity to see the evidence about the safety of the Main Road site and discuss it with the experts.
- 38. Associate Professor Sarb Johal also suggested providing assistance with threat discrimination capacity (i.e. assisting people to be appropriately watchful for cues and threats that may be about to occur, rather than being overly attentive and sensitive to the threat).
- 39. The three psychology experts agreed that even with the mitigation measures, a small group of anxiety prone children may be adversely affected by rockfall, as an indicator of more general issues. Dr Gordon noted a number of factors have been shown to increase a child's vulnerability to trauma when exposed to threatening events, including the presence of other concurrent emotional or family problems, lack of control and low self-esteem. Dr Gordon considered that exposure to ongoing rockfall would not harm children who have suffered or are suffering other stresses, provided the exposure occurs within an environment of support, confidence and familiarity.

#### ***The literature review***

- 40. The literature review did not identify any studies that directly related to the unique context of Redcliffs, either geographically or situationally.
- 41. The review identified that family characteristics are particularly important for either increasing vulnerability or protecting children from potential psychosocial effects. It also recognised the importance of schools for providing stability or protection in difficult times, and that teachers are particularly important as 'psychosocial mediators'. This is due to teachers being trusted sources of information, and having pre-existing relationships with children. However, while schools may be a source of support, the literature also recognises that the teachers may struggle to support students due to feeling that they don't have adequate training, or due to their own emotional trauma.
- 42. The literature review also endorsed the importance of effective risk communication as key to advising people about risk and facilitating the development of social resilience. This involves providing people with clear and specific information to reduce uncertainty about a natural hazard.

#### ***Board comments***

- 43. The experts' opinions and the literature review were reviewed by the Steering Group members, with the assistance of the synthesis report.
- 44. The Board commented that 'We reserve our position relating to some elements of the detailed comments in some of the reports because we believe in some cases the nature of the environment at Redcliffs School is misrepresented or incorrectly compared to other risks which are of a greater threat than the issues posed at Redcliffs. We do not believe it useful to traverse those issues in detail however, due to the overall conclusions reached by the report writers.'
- 45. At the next Steering Group meeting, the Board representatives confirmed that they did not wish to suggest any amendments to the reports, and the reports were subsequently finalised.



46. The Board's position is that the Main Road site is the preferred site unless the results of the psychosocial investigation show that it is unsuited for education provision. The Board's view is that the results of the psychosocial investigation do not demonstrate that the site is unsuited for education provision, but rather that there are mitigation strategies which should be implemented in order to lessen or eliminate potential psychosocial impacts.

**Technical comments**

47. The Ministry also requested that Nick Harwood, the Board's geotechnical advisor who delivered the technical briefing to the experts, consider the experts' reports and comment on the experts' demonstrated interpretation or understanding of the technical context. This was to provide further assurance that the experts were giving their opinions with a correct technical understanding of the Main Road site and the proposed mitigation strategy.
48. Because Mr Harwood's technical expertise is in engineering rather than in psychology, the Ministry stated that it was 'not asking you to comment on any of the psychosocial or psychological aspects of the reports'. Mr Harwood's response said that he 'read the reports in both my capacity as a geotechnical expert and as a parent'.
49. Mr Harwood indicated that some of the technical descriptions used in the reports are "somewhat misleading", but referred to only two specific statements in particular:

'Johal states:

The children and families that attend Redcliffs School are not only exposed to potential rockfall should the school be re-opened on the Main Road site, but there is also the continuing underlying risk of further earthquakes affecting the entire region.

*I suggest this comment be tempered by the fact that with the mitigation in place, the rockfall risk is virtually nil. Also, the experience of earthquake shaking in a regionally significant event will likely override any visual or auditory awareness of rockfall.*

Harith states:

It is not possible to rule out 100% any possible effect because:

1. There is always the possibility of rockfalls no matter how minimal it is,

*I suggest this comment be augmented with fact that with the mitigation in place, rockfall risk is virtually nil.'*

50. Mr Harwood's statement that "rockfall risk is virtually nil" is a reference to the risk of physical harm to students at the Main Road site, with the proposed mitigation works in place: refer p. 13 of the Eliot Sinclair report authored by Mr Harwood (Appendix 8 of the Board's 31 March 2016 submission). The technical reports indicate that ongoing rockfall next to the school site is expected to occur.
51. His review included other commentary and 'some messages from me that I would like recognised in reporting to the Minister'. These fell outside the scope of the areas he had been asked to comment on and his expertise. However, his full comments are attached as Appendix 4.

52. For completeness, it is noted that the following statement in Nick Harwood's response is not supported: *"It is highly likely that had we known in 2011 what we know now about the rockfall risk environment, the school would not have had reason to leave the Main Rd site"*. We do not consider that the safety of students on the Main Road site can be assured without implementing the mitigation measures that have been recommended by technical experts, which include shifting the school boundaries away from the cliff and building a protective bund. We also note that the demolition of houses on the cliff-tops behind the school created an additional hazard that would have prevented building work from occurring.
53. Experts have confirmed that without the proposed mitigation works and the relocation of the school buildings and boundary away from the cliffs, the Main Road site is assessed to be physically unsafe and posing a risk to life. A geotechnical report prepared by MWH New Zealand Ltd (MWH) (Refer to Appendix 1 of METIS 889496) advised that the school boundaries should be shifted to provide sufficient distance from the cliff so that the site is at a  $10^{-6}$  Annual Individual Fatality Risk, and recommended a bund for additional protection due to the sensitive nature of a school site.

#### ***Ministry comments***

54. The psychosocial experts' general view that there is very little risk of psychosocial harm to most children in attending school at the Main Road site is qualified by the proviso that children are well supported by their parents and teachers and that effective communication and other strategies are in place.
55. The experts' opinions clearly emphasise the importance of parental influence on children's psychosocial outcomes, and that children exposed to parental distress, or who lack effective parental support will be more vulnerable to negative psychosocial outcomes. It is important to recognise, therefore, that mitigation of potential psychosocial risks would need to successfully influence the parents' perceptions as well as the children's, and is dependent on how well the parents can address these issues with their children. Further, even with the mitigation measures, a small group of particularly vulnerable children may be adversely affected by the school's location at the Main Road site.
56. The Ministry recognises the current Board's commitment to the Main Road site, and its clear willingness to work towards addressing and implementing the mitigations suggested by the experts. This places a responsibility on the school staff, particularly teaching staff, and the Board would need to provide teachers with appropriate training and support to meet this 'weighty responsibility'. It is also important to consider the responsibility this places on future Boards and school staff. Further, the experts are clear that these mitigations are not 'one off' but will need to be repeated and re-targeted for children as they work through the school, and it seems obvious that this would also be required for families that move into the school community in years to come.



57. While the current Board has expressed a desire for Ministry support to assist it with implementing the suggested mitigation strategies, the self-managing nature of the school means that the Ministry does not have any control over how effectively these mitigation strategies are implemented, now or in the future. Furthermore, neither the Board nor the Ministry has any control over how effectively parents are able to support and implement the mitigation strategies in the home environment, even though this is recognised as the most important aspect in reducing the risk of negative impact for the children attending the school.
58. The Ministry considers that the potential risks of the Main Road site to children's wellbeing, and the ongoing need for support and strategies to mitigate those risks, are relevant to the assessment of whether returning the school to the Main Road site is the best option for the school.

### Feasibility analysis of potential relocation of school to another site

59. The Board raised the possibility of relocation of the school in its 31 March 2016 submission to you, and the Ministry agreed that the feasibility of relocation should be further explored. You subsequently agreed that this work should be undertaken.

### **Scope and methodology**

60. The project plan developed with the Steering Group members (refer to Appendix 2) outlined the agreed approach to the feasibility analysis, including the scope, process and technical experts.
61. The Steering Group received and considered all property-related reports. The Board's geotechnical adviser, Nick Harwood of Eliot Sinclair, was invited to review the geotechnical aspects of the property reports.
62. The Ministry commissioned The Property Group (TPG) to prepare an Alternative Site Selection Assessment report to identify possible alternative sites for Redcliffs School. While recent population projections suggest a roll of 300 students (METIS 1007210 refers), a maximum roll of 400 students was assumed in order to accommodate future growth.
63. The Ministry did not commission similar reports on the Main Road site, as this was outside the scope of the inquiry, which was to assess whether relocation to another site was feasible. Inclusion of the Main Road site in the investigation was also unnecessary: this site has already been used for education provision and so the methodology used for assessing the alternative sites (e.g. contamination, transport and cultural considerations) have already been carried out or are not applicable. In addition, significant amounts of information are already available on the geotechnical characteristics of the site, and on the required mitigations if the school were to return to the Main Road site.

64. TPG applied the Ministry's methodology for new school site evaluation. This comprises a two stage process. The first stage involves identifying all potential sites within a pre-defined geographic catchment area, and then assessing the suitability of each potential school site at a high level. In the second stage, potential sites from the first stage are scored against the 20 Stage 2 criteria of the Ministry's Methodology<sup>1</sup>.

### ***Stage 1 evaluation***

65. The pre-defined geographic area that was applied included all land within the existing Redcliffs School enrolment zone, and a 500m buffer area beyond the zone in all directions. The Ministry's guidelines state that a primary school of 400 students would require approximately 1.7 – 2 hectares of useable land, and (optionally) an additional 1,500 square metres to accommodate early childhood provision if this is required in the future.
66. Accordingly, TPG identified all property within the defined geographic area of focus that had a minimum land area of 1.5 hectares. This included any single parcels equal to or greater than 1.5 hectares, multiple parcels in common ownership which were equal to or greater than 1.5 hectares if combined, and parcels with adjacent reserve land that could be used to meet the 1.5 hectare minimum area.
67. Desktop valuations indicated the cost of acquiring multiple properties from various private owners to be approximately \$20 - \$26m, since 31 – 35 properties would be required to create a 2 hectare site. This makes the acquisition of multiple properties both complex to implement and financially unviable.
68. The application of this methodology resulted in a total of 38 sites which were then evaluated using traffic light indication according to the four specific criteria in the Ministry's site acquisition methodology:
- Locality
  - Size/shape
  - Current land use
  - Access
69. All sites within the Redcliffs School zone were given a green light on locality.
70. Sites of a sufficient size (1.7 – 2.0 ha) were given a green light on size, with consideration also being given to the contour and shape of each identified site. The prevalence of sites with a steep contour led to a number of sites being eliminated on this criterion.
71. Current site usage included consideration of transmission lines, cell phone sites, high environmental or ecological values, historic sites or settings, watercourses, or geotechnical issues.
72. Access involved the existence of legal access or road frontage, with sufficient frontage for the parking and pick up / drop off areas required.

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<sup>1</sup> The Property Group (August 2016). Alternative Site Assessment Report: Redcliffs School, p.17, attached as Appendix 5.



73. Of the 38 sites, three had no red lights in any of the four criteria. These were considered suitable for progression to Stage 2:

- McCormacks Bay Reserve
- Redcliffs Park
- Barnett Park

### ***Stage 2 evaluation***

74. Consultant reports were commissioned on these sites in the following disciplines:

- Geotechnical and contamination – Tonkin & Taylor
- Transportation – Abley Transportation Consultants
- Bulk and location plans – Stephenson & Turner Architects
- Valuation information – Telfer Young
- Cultural considerations – Mahaanui Kurataiao Ltd

75. TPG's first Alternative Site Assessment Evaluation report identified six possible sites across the three different locations listed above (three on Barnett Park, two on Redcliffs Park<sup>2</sup>, and one on McCormacks Bay Reserve). Each site was scored against the 20 Stage 2 criteria of the Ministry's Methodology<sup>3</sup>. Based on the initial scoring of these sites, the report recommended progressing with further investigation on four sites across two locations (Redcliffs Park B and Barnett Park - all sites). This report is attached as Appendix 5.

76. The Board's geotechnical adviser, Nick Harwood of Eliot Sinclair contributed comments which are provided in Appendix 6, and his specific comments in the text of the report were provided to the report's authors for their consideration. His comments have been addressed in a Technical Note from the authors, which is attached to this report as Appendix 7. His comments are discussed further in subsequent sections.

77. After detailed consideration by the Steering Group, the Board Steering Group members proposed that a Barnett Park D site option and Redcliffs Park C site option were added. These options are discussed in a second Alternative Site Assessment Evaluation report, which is attached as Appendix 8.

### ***Alternative Site Selection Assessment: Second Report***

78. This report was provided to the Board for comment, was discussed at the meeting between the Board and Ministry on Friday 30 September, and has subsequently been finalised. Since Nick Harwood had already provided comments on the geotechnical scope and methodology applied in the first Alternative Site Selection Assessment report and these aspects remained unchanged from the first report, the Ministry did not request that he review the second report.

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<sup>2</sup> Note that a new Redcliffs Park site, Redcliffs Park C, is introduced in the second Alternative Site Assessment Report.

<sup>3</sup> The Property Group (August 2016). Alternative Site Assessment Report: Redcliffs School, p.17, attached as Appendix 5.

79. The total scores of all sites evaluated in the first and second reports are shown in Table 1 below.

**Table 1. Stage 2 scores**

Site	Score	Ranking
Redcliffs Park C	71.4	1
Redcliffs Park B	70.4	2
Barnett Park D	68.1	3
Barnett Park C	64.7	4
Barnett Park B	64.5	5
Barnett Park A	62.6	6
Redcliffs Park A	62.4	7
McCormacks Bay Reserve	57.5	8

80. The first property report recommended not to progress any further due diligence on McCormacks Bay Reserve site as it scored the lowest of the potential alternative sites.
81. The recommendation of the first property report in relation to Barnett Park was to progress further detailed due diligence. This was due to the three different sites evaluated in that report (Barnett Park A, B and C) scoring within two points of each other. When the first property report was discussed with the Steering Group, it became evident that specific consideration of the  $10^{-6}$  AIFR line was required when evaluating alternative sites within the specific Redcliffs area. The Ministry's site acquisition methodology does not generally consider the  $10^{-6}$  AIFR line as a unique criterion.
82. Barnett Park D scored the highest of the Barnett Park locations, at 68.1. This evaluation is detailed in Appendix 8. However, the  $10^{-6}$  AIFR line runs along the majority of the western edge of the park, terminating at the edge of the existing carpark. Bulk and location plans show that it would be possible to situate school buildings to accommodate the  $10^{-6}$  AIFR line.
83. To be considered comparable to the Main Road site, Barnett Park D would likely require some further risk treatment (for example the construction of a physical barrier). This would restrict children from accessing the parts of the site. As this park is extensively used by community, any such barrier would significantly impact upon the community's ability to use the park to its full potential.
84. Redcliffs Park B and C were the highest scoring options of the sites evaluated. Redcliffs Park C is the highest scoring overall, and is a variant of Redcliffs Park B, with the building platform moved to approximately 20 metres inside the park boundary with Main Road, as shown in Figure 1.



**Figure 1. Redcliffs Park – Building platforms A, B and C**



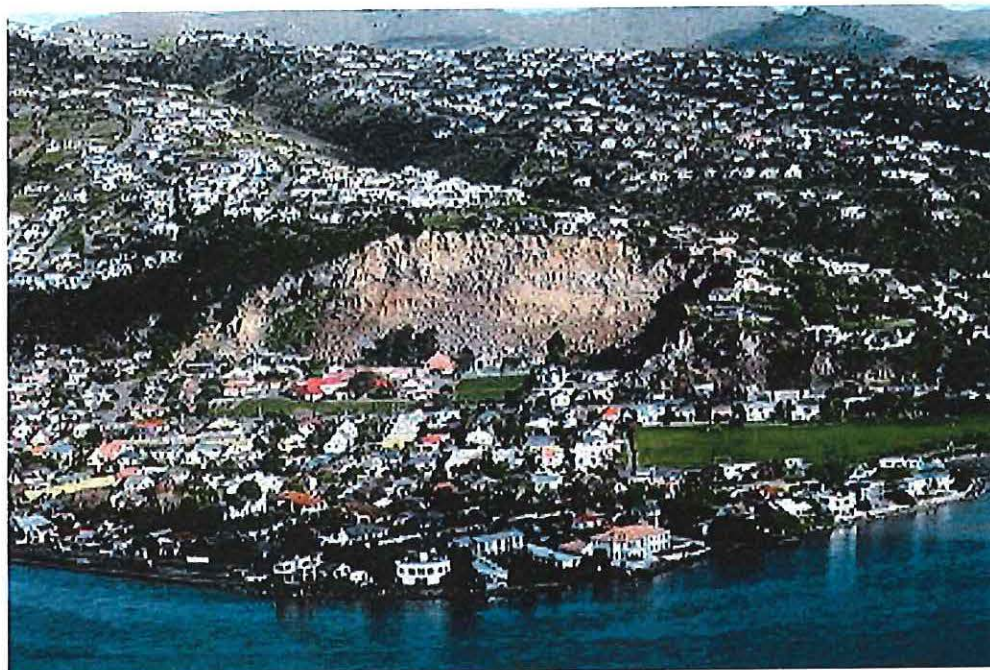
85. Figures 2 and 3 below show the relative location of the Main Road site and Redcliffs Park.

**Figure 2. Aerial view of the Redcliffs area showing the Main Road and Redcliffs Park sites**





**Figure 3. Photo of Redcliffs showing Main Road site in the background and Redcliffs Park site in the foreground<sup>4</sup>**



86. The main benefit of Redcliffs Park C over Redcliffs Park B is that it retreats from the Annual Individual Fatality Risk  $10^{-6}$  line<sup>5</sup>. The line currently encroaches approximately 4m onto Redcliffs Park B, although it is likely to retreat to approximately the middle of Main Road as a result of mitigation works currently being carried out by the New Zealand Transport Agency (NZTA) and CCC on the far side of Main Road from Redcliffs Park. We understand that this work will be completed by 2017.
87. The building platform for Redcliffs Park C is approximately 12-15m back from the AIFR  $10^{-6}$  line as it is currently located.
88. The second Alternative Site Evaluation Assessment report recommends that the Ministry commence due diligence proceedings on Redcliffs Park as a whole. This would enable detailed analysis to be undertaken on the optimal location for school infrastructure on Redcliffs Park, and enable a location to be selected which would not require any rockfall mitigation works.

#### ***Coastal Inundation Hazard zone and tsunami risk***

89. The Ministry has previously stated that it did not see Redcliffs Park as a viable alternative site due to it being in Coastal Inundation Hazard Zone (CIHZ) 1 and 2, and therefore potentially subject to future flooding as a result of climate change and sea level rise considerations.

<sup>4</sup> Photo sourced from Baxter, G., King, M., Solodi, R, Swan, T & Wilson, A. Exploring the wellbeing of residents in Redcliffs in the aftermath of the Canterbury earthquake sequence. Accessed from [http://www.geog.canterbury.ac.nz/community/309/2012/GEOG309\\_2012\\_Redcliffs\\_Final\\_Report.pdf](http://www.geog.canterbury.ac.nz/community/309/2012/GEOG309_2012_Redcliffs_Final_Report.pdf)

<sup>5</sup> The AIFR previously considered to be suitable for a school site (refer to Taig, T., Massey, C., & Webb, T. (2012). GNS Science Consultancy Report 2011/319. Canterbury Earthquakes 2010/11 Port Hills Slope Stability: Principles and Criteria for the Assessment of Risk from Slope Instability in the Port Hills, Christchurch.



90. Although the Redcliffs Park Location A is within the CIHZ, the floor level elevation for future buildings is governed by CCC Flood Management Area (FMA) considerations. The CIHZ currently exists for information purposes only and does not carry any specific building code or resource consenting requirements.
91. For the Redcliffs Park Location A site, the FFL is expected to be at an elevation of approximately 3.317 mLVD. This is approximately 1.5 m higher than the current average ground surface elevation at the site.
92. Tonkin & Taylor advise that while Redcliffs Park A is within the CCC FMA (and the CIHZ), raising the floor elevation for any buildings would address this. For Redcliffs Park B and C, the expected elevation for buildings on those sites would be above the FMA and CIHZ considerations. Engineered perimeter protection works may be developed to address coastal inundation and erosion hazards, although as Tonkin & Taylor note these are community wide hazards that manifest over many years, and a community wide (rather than school specific) response to such hazards is to be expected.
93. Nick Harwood raised concerns in his feedback on the first property report about relocating to a site subject to tsunami hazard and questioned the asset management of building a school in a tsunami hazard area. These concerns are addressed in a technical note by Tonkin & Taylor (Appendix 7).
94. The tsunami hazard to the Canterbury coastline principally arises from distant sources (primarily South America and Alaska), regional sources (primarily the Hikurangi subduction zone off the Wairarapa/Hawke's Bay coastline) and local sources (primarily within Pegasus Bay or off the coast of Kaikoura). A distant source tsunami that occurs coincident with a high tide level would generate the highest level of inundation within the coastal community, including Sumner and Redcliffs.
95. All potential school sites examined as part of this study would be impacted to some degree by such a tsunami. However, the probability of this tsunami hazard occurring is of the order of one in 2,500 years. A warning time of approximately 12-15 hours would be expected for this hazard, which is expected to be sufficient to enable evacuation of the potentially affected communities. Therefore, the life risk associated with this hazard, at any of the potential school sites, is expected to be less than  $10^{-6}$ .
96. The regional and local tsunami would potentially mean less warning but these sources are expected to generate much smaller wave heights and therefore much less inundation depths within the community area. The specific risk calculation hasn't been done for the potential school sites for a regional or local source tsunami hazard, but as the depth of inundation would be less, and the velocity of water less, it is anticipated that there would also be a low "life risk" even though there wouldn't be as long a warning period. Evacuation for a regional or local tsunami may not even be necessary.

97. The property damage from tsunami would be linked mainly to the depth of inundation and water velocity. For a distant source tsunami, community-wide impacts would likely be extensive. For a regional or local source tsunami, however, property damage would be limited to lower lying land, immediately adjacent to the coast line. If a school was built on Redcliffs Park A, the Final Floor Level (FFL) would have to be approximately 3.3m LVD (due to the site being within the Flood Management Area anyway). Given that the expected wave height for regional or local source tsunami is less than around 2 metres, significant property damage would not be expected even if the tsunami happened to coincide with an unusually high tide.
98. We consider that the low level of risk associated with tsunami compared with the likely lifespan of a school mean that this consideration should not preclude investment on either the Redcliffs Park sites or the Main Road site.

***Site access, potential disruption and co-location opportunities***

99. Redcliffs Park has road frontage to Main Road, Celia Street and Beachville Road and can be well served by all modes of transport.
100. The Board has specifically asked that the Ministry consider the risk of disruption to education provision if there was rockfall from the cliff on the other side of Main Road, directly across from Redcliffs Park. The Ministry notes that the removal of such rockfall would be the responsibility of NZTA and the CCC, and would be prioritised highly because Main Road provides the only road access to Redcliffs and the following bays. However, the Ministry also notes that the Board and Ministry would not have any control over removal or repair, as the Ministry is not the landowner.
101. The Ministry considers that the additional access through Celia Street and Beachville Road would mitigate issues of disruption in accessing the site, because if Main Road were restricted then the majority of students could access the site via Celia Street and Beachville Road. If the rockfall was such that neither Main Road nor Beachville Road could be accessed, then students from McCormacks Bay would be unable to reach the school. Note that if Main Road and Beachville Road were blocked, students from McCormacks Bay would also be unable to access the original Main Road site.
102. The site offers potential opportunities for co-location and shared facilities (e.g. continued access to playing fields, redeveloped playground). This would enable the community to continue to access improved facilities on the site once the school had been constructed.
103. There would also be sufficient space for siting an early childhood education centre on the site, if population growth in the future leads to a requirement for more early childhood spaces in the Redcliffs area. Acquiring sufficient land for future ECE provision is standard Ministry practice during site acquisition, and the Ministry recognises the benefits for curriculum provision and effective transition when ECE is co-located on school sites.

***Site acquisition***

104. Any land acquisition/transfer of Redcliffs Park would be facilitated via the Public Works Act. There is also the potential to exchange the existing school site with the CCC land.



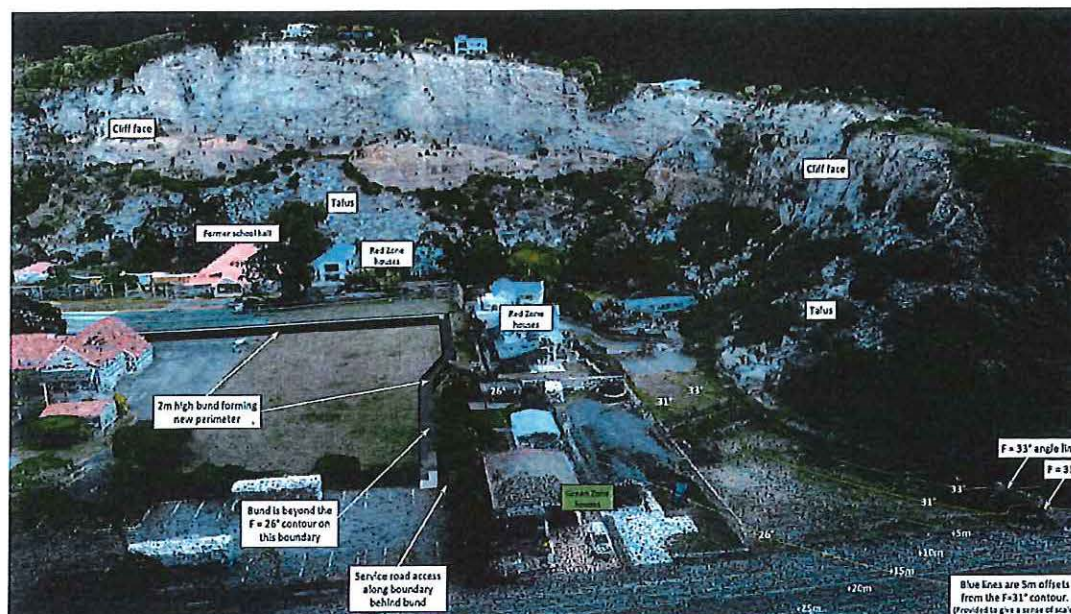
105. The site has a number of complexities associated with it, relating to the ownership status of the parcels of land that comprise Redcliffs Park, potential Right of First Refusal obligations, and CCC processes which require public consultation. Specific details are outlined in the Property Reports. Acquisition is still considered to be feasible despite these complexities.
106. Once the land was approved for acquisition, the Ministry would need to obtain a designation for the site. The Education Brief and masterplanning processes could run concurrently with the designation process. Indicative timeframes are outlined in the subsequent section.

### Main Road Site

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107. You have previously been provided with information relating to the process and timeframe for returning to the Main Road site with either a full or partial rebuild, and the implications of the Eliot Sinclair mitigation solution on site size (METIS 1007210 refers).
108. You have indicated that you are satisfied that the Main Road site can be made safe for uninterrupted education provision with the mitigation solution proposed by Eliot Sinclair. The recommended mitigation measures would reduce the usable area of the school site by around 40%. Abandoning 40% of the site would give a remaining site size of 1.44ha.
109. Applying the standard Ministry of Education guidelines for a primary school site (being 1ha plus 14m<sup>2</sup> per student), this site size would support a roll of up to 314 students rather than the roll of 400 able to be accommodated by the potential alternative sites identified by the feasibility analysis. It may be possible to accommodate up to 400 students on the current site, but this would likely require a higher site density than is preferable and would limit future possible growth. It would also mean that two storey buildings may be required to limit the loss of green space.
110. If the school was to return to the Main Road site, construction work would need to take place on the site before it was able to be occupied, outlined below.
111. The proposed strategy that has been developed to mitigate the risks and future disruption entails the construction of a bund along two sides of the (reduced) school perimeter, as shown in Figure 4 below.

**Figure 4: Main Road site with proposed bund location**



112. The school's hall has been surrounded by rock from cliff collapse and will need to be demolished. The remaining classroom buildings on site range from having been built in 1907 to the early 2000's, and did not suffer any significant earthquake damage. All of these buildings have been well maintained and are in good condition. As the majority of the school property is deemed to be in satisfactory condition, a partial rather than full new build would be possible. A partial rebuild would involve adding a new hall and teaching spaces. Existing buildings would also be modified to suit the teaching and learning practices of the school. The size and the shape of the buildings would be likely to remain as they are now, but the internal fit out and reconfiguration would be modified.
113. The Board has informed the Ministry that its preference is to relocate back to the Main Road site before the partial rebuild takes place. This would mean that the bund would be constructed, and then the school would return to the Main Road site. The school would operate on the Main Road site during the construction of the new hall and teaching spaces, and then would occupy the new spaces and the spaces marked for removal while the remaining classroom buildings were refurbished.
114. The Board believes that this would allow them to return to the Main Road site more quickly than the 18 – 24 months the Ministry has estimated for a partial rebuild (this is explained in more detail in the subsequent section on timing). The Board has also suggested it may be a more economic option than the partial and full rebuild prices provided by the Ministry. The Ministry acknowledges that it is likely this option would allow the school to return to the Main Road site in a shorter timeframe, and that it may be more economic. However, the Ministry believes a longer timeframe offsite would be preferable to returning students to a site where
  - a. construction would continue for a considerable period;
  - b. there is uncertainty about how this would be staged so that the school's property budget was not depleted by a need to provide temporary accommodation;



- c. there would be health and safety obligations to meet in terms of protecting students physically from construction work, and in ensuring contractors are police vetted if they may be in contact with students; and
  - d. there is uncertainty as to whether the logistics of providing uninterrupted education on the site would compromise optimal building locations and designs.
115. A new build would enable us to make better use of the reduced site area.
116. A full rebuild on the Main Road site would include a complete demolition of the site. New buildings would facilitate innovative learning environments to be custom designed and built to meet the needs of the Redcliffs School. The new facilities would maximise the teaching and learning practices within the school. The new buildings would be re-positioned on the site, likely to the north east corner of the site.
117. The Ministry's preference is for a full rebuild rather than a partial rebuild. While a full rebuild would take longer and would cost more, the Ministry believes that this would allow the design and build of learning spaces that would better meet future teaching and learning needs, and would best mitigate the restricted site size.

## Timing

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118. This section outlines the indicative timeframes for a return to the original Main Road site, as well as relocation to Redcliffs Park. Relocation is outlined in Table 2 overleaf, and shows a likely relocation date of Term 3, 2019. The table outlines the timeframe for acquiring Redcliffs Park through sale of land by the CCC. If your decision is that the Ministry should proceed with site acquisition, the Ministry will also seek specialist legal advice from lawyers specialising in acquiring reserve land in a Christchurch context. It is possible that this advice may yield additional possibilities for acquiring land in a shorter time period.
119. If the school were to return to its Main Road site, the Ministry would develop a detailed project plan for the property work required. Without a detailed master plan and methodology it is difficult to exactly determine the duration of the design and construction phase. Based on our experience with other Christchurch rebuilds, a project similar to the complete design and build of Redcliffs School should take approximately two years (24 months) from start of demolition to completion of construction. This would comprise:
- Preparation of Education brief, 3 months
  - Master-planning and design, 9 months
  - Construction, 12 months
120. Assuming you announced your decision in October the indicative timeframe would be:
- Preparation of an Education Brief: November 2016 – February 2017 (an extra month is allowed due to Christmas)
  - Masterplanning and design: March – November 2017
  - Construction: November 2017 – November 2018

121. If only a partial rebuild were undertaken, that is likely to take less time. The reason for this is the design requirements for the new buildings and the redevelopments can potentially be undertaken in parallel and the construction phase can be separated in two distinct parts. A partial redevelopment may be up to six months less than a complete rebuild meaning it may be possible to reoccupy the site for Term 3 2018. As outlined previously, if the school returned to its Main Road site prior to the rebuild, and the rebuild occurred with the school operating onsite, the school could return in a shorter time period than 18 – 24 months. However, due to the reasons discussed earlier, this is not the Ministry's preferred option.



Table 2. Draft process and timeframe for relocation

Acquisition Process	Timeframe	Designation Process	Timeframe	Construction Process	Timeframe
Announcement of your decision	October 2016				
Initial discussions between MoE and CCC staff to confirm the terms on which potential sale/exchange may occur and to confirm the CCC decision making process which needs to be followed. Confirmation of RFR obligations. Consultation with Ngāi Tahu on exemption matters (and RFR if required) Detailed environmental and geotechnical due diligence of specific site.	October - November 2016	<i>Pre-lodgement:</i> Prepare application. Include all necessary consultant information.	Commence October		
CCC officers prepare briefing to go to Community Board	December 2016	Pre application meeting	December		
Initial Community Board seminar/workshop to discuss and review proposal	December 2016				
Community Board Decision meeting – proposal placed on formal Board Agenda.	February 2017				
Proposed land sale/exchange formally advertised publicly in line with legislative requirements.	March – April 2017				

Acquisition Process	Timeframe	Designation Process	Timeframe	Construction Process	Timeframe
Hearing of submissions	May 2017				
Hearing Panel deliberation and preparation of recommendations	May – June 2017				
Hearings Panel recommendation goes to CCC for decision	August 2017	Lodgement (following CCC decision): CCC determines whether application is complete.	August 2017	Preparation of Education Brief (could start earlier if school is willing).	August – October 2017
CCC recommendation to DoC/Minister for approval and Ministerial decision.	August – September 2017	The Ministry would request a fully notified application process. Preparation of documents for notification.	September 2017		
Sale/exchange of land and formal agreement processed/executed by CCC and Crown.	September – November 2017.	Application advertised and open for submissions. (Statutory timeframe of up to 20 working days).	October 2017		
		Hearing completed if required. (Statutory timeframe of hearing completed within 75 working days from close of submissions)	November 2017 – January 2018	Masterplanning	November 2017 – January 2018
		Preparation of written recommendation. Consent Authority advises Requiring Authority of recommendation. (Statutory timeframe of up to 15 working days).	February 2018	Detailed design	February 2018 – July 2018



Acquisition Process	Timeframe	Designation Process	Timeframe	Construction Process	Timeframe
		Requiring Authority writes back to Consent Authority advising that it accepts/rejects recommendation. (Statutory timeframe of up to 30 days post receipt of recommendation).	March 2018		
				Construction	July 2018 – July 2019

Notes: The timelines assume all decisions are favourable, and do not include timelines for statutory appeals if these are required.  
The timelines assume all statutory timeframes take the maximum time allowable.

## Financial Implications

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122. The Ministry commissioned a rough order of costs for construction from Barnes Beagley Doherty for each of the sites identified and assessed at Stage 2 in both Alternative Site Selection Assessment reports. These are shown in Table 3 below, and attached in full as Appendix 9. The table also includes indicative costs for a partial or full rebuild on the original Main Road site.
123. The build costs associated with the redevelopment of Redcliff's school will be met from GCERP. Barnes Beagley Doherty also provided an updated rough order of cost of construction for a partial and full rebuild on the original Main Road site.
124. The original scope of works for the partial redevelopment was based on the November 2013 Greater Christchurch Educational Renewal Business Case. This specific redevelopment project was based on the same methodology as all other schools within this Business Case.

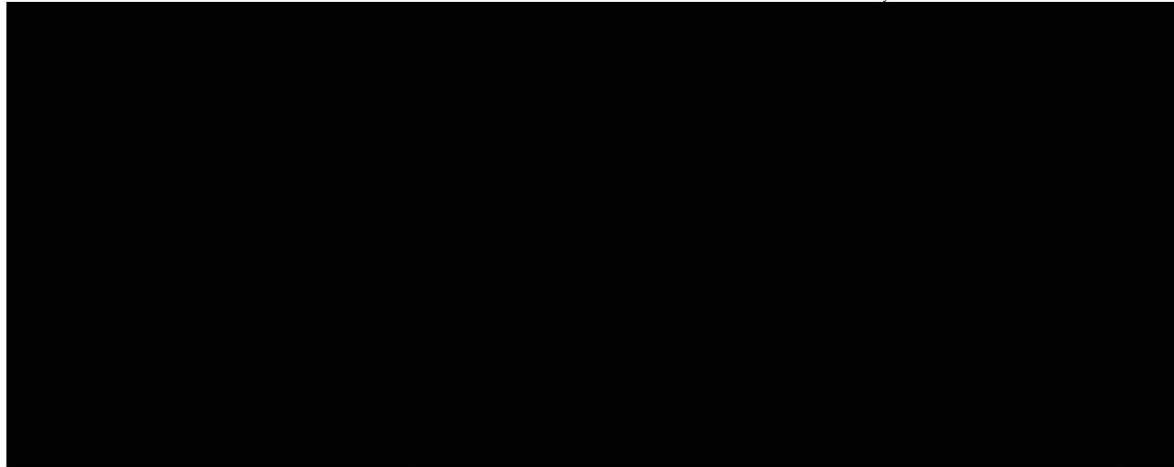
s 9(2)(i) OIA, s 9(2)(j) OIA





127. The business case for the Christchurch Schools Rebuild was agreed in 2013. As we are now in the third year of the programme, our knowledge of the construction market has increased significantly and we are able to more accurately estimate the costs of work. Our previous estimates to you were kept consistent with earlier reports (METIS 1007210 refers), but it is timely to get an up-to-date assessment of construction costs for the Main Road site, so that this is consistent with pricing provided for the alternative sites.
128. The cost of the redevelopment was included in the Business Case which was agreed by Cabinet on 20 August 2012.
129. The cost estimates for the Main Road site includes an estimate \$1.5m cost for the construction of a bund. This is the same estimate as that given for the previous bund design in the earlier MWH report. The Ministry acknowledges that the proposed mitigation strategy outlined in the Eliot Sinclair report (Appendix 8 of the Board's submission of 30 June 2016) would be lower in price than the MWH solution, but the actual cost would not be known until design and timing of construction was finalised, and costs were obtained from the market.
130. Furthermore, Eliot Sinclair's report stated that the bund location could be altered to lessen site restriction, but with increased height and cost. Without the final certainty of the specific design of the bund, a consistent provisional sum has been used (\$1.5m) to cover all contingencies for that construction item.
131. At a Steering Group meeting held with the Board on 30 September, the Board Chairperson raised concerns about the cost of the bund and stated that a \$750k estimate for the construction of the bund had been submitted with the Board's 31 March 2016 submission. The hard copy and electronic copy received by the Ministry did not contain this estimate, but this has since been obtained by the Ministry and is attached as Appendix 10.
132. Relocation to Redcliffs Park C would cost marginally more than a full rebuild on the original Main Road site, and significantly more than a partial rebuild on the original Main Road site. Relocation to Redcliffs Park A or B would cost less than a full rebuild on the original Main Road site, but more than a partial rebuild. If the Board's estimate for the bund is used, Redcliffs Park B would also cost more than a full rebuild on the Main Road site.
133. These costs do not include the cost of site acquisition Table 4 shows an indicative cost for two site acquisition scenarios. The first scenario is that the whole of Redcliffs Park is acquired. The second is that a 2,500m<sup>2</sup> site is acquired for the school building footprint, with the intention that the site would also allow for facilities such as hard courts, playing fields and car parking.

Table 4. Indicative site acquisition costs for Redcliffs Park



134. Value A represents the market value of the land if it were zoned for residential development and without a Coastal Environment notation<sup>9</sup>, which is not the case. Value B represents the market value of the land as it exists today. This value may vary slightly if the building platform were moved.
135. The land acquisition mechanism (transfer/sale) will not be certain until an outcome on the land acquisition is known. A transfer (swap) of land between the Crown and the CCC could result in a cost neutral situation, which would be the Ministry's preference.

### Discussion of Options

136. As noted, in your letter to the Board of 7 July, informing it that you had not confirmed your interim decision, you stated that *'An alternative site could also mean that the school did not have to compromise its space and would not have to manage the ongoing risks posed by the cliffs. It would mean that future generations of Redcliffs children would be able to go to school on an ordinary site, where they would not have to deal with the threat of ongoing rockfall behind the site'*.
137. Regardless of site, the rebuild of Redcliffs School is a major investment of Crown funds, and the Ministry has to carefully consider which site provides for the most prudent and optimal investment.
138. The results of the feasibility study detailed above demonstrate that relocation to a site in Redcliffs Park is feasible. Relocation of the school to Redcliffs Park would provide a less restricted site size, as well as being better able to accommodate future roll growth. The site would provide more possibilities for co-located and shared facilities in the future, and there would also be sufficient space for siting an early childhood education centre on the site, if population growth in the future leads to a requirement for more early childhood spaces in the Redcliffs area.

<sup>6</sup> This cost excludes the adjoining residential site at 19 Main Road, which the Ministry would consider acquiring if detailed design indicated that this would facilitate the optimal location of buildings

<sup>7</sup> This cost excludes the adjoining residential site at 19 Main Road, which the Ministry would consider acquiring if detailed design indicated that this would facilitate the optimal location of buildings

<sup>8</sup> Same as Location B, not calculated separately

<sup>9</sup> Full description of Value A and Value B is in the Telfer Young report at Appendix 9 of Alternative Site Selection Assessment report



139. Redcliffs Park has road frontage to Main Road, Celia Street and Beachville Road, while the Main Road site can only be accessed from Main Road. Redcliffs Park is, however, within the Flood Management Area, and buildings would require elevated floor levels to meet the requirements of this Area.
140. If the school were to be relocated, the Ministry would propose to undertake due diligence proceedings on Redcliffs Park as a whole. This would enable detailed analysis to be undertaken on the optimal location for school infrastructure on Redcliffs Park.
141. A build on Redcliffs Park could be marginally more costly than a full rebuild on the Main Road site (which is the preferred option if the school returns to that site). Site acquisition costs for Redcliffs Park would increase the costs further, although site acquisition could be cost neutral if a land swap between the Crown and CCC occurs.
142. The investigation into potential psychosocial implications for returning to the Main Road site indicates that while there is very little risk of harm to most children in attending school at the Main Road site, this is subject to the proviso that that children are well supported by their parents and teachers and that effective communication and other strategies are in place. The Ministry would not have control over whether and how effectively these mitigation solutions are implemented. In addition, the commitment of the current Board to managing the complexities of this site may not be shared by future Boards, staff or community members.
143. Relocation to a new site on Redcliffs Park could eliminate these risks and concerns.
144. We recognise that it may be a more costly option (the exact cost would depend on whether a land swap is used for site acquisition and where the infrastructure was located on the Redcliffs Park site), and that relocation would delay the school settling into a permanent home by two terms (compared with a full rebuild on the Main Road site. However, this must be viewed from the perspective of the long-term advantages of the Redcliffs Park site.

## Risks

Risk	Mitigation
The Board and wider Redcliffs community may prefer a return to the Main Road site rather than relocation, and may oppose your decision if you decide to relocate the school.	The Ministry recommends that you release this report publicly so that the community can understand the rationale for your decision.
The Ministry may be unable to acquire the Redcliffs Park site.	The Ministry recommends that you do not dispose of the original Main Road site. If the Ministry cannot acquire the Redcliffs Park site, we can re-evaluate further options.
The indicative relocation timeframes include some preparation work being commenced before final decisions will have been made (e.g. preparing the designation application following the Community Board's decision but prior to consultation or the CCC's decision). There is a risk that acquisition may not proceed after preparing the designation application and/or the Education Brief.	The Ministry considers the positive impacts on the timeframes outweigh the risk of carrying out work which will not be required if site acquisition does not proceed.

## Conclusion and Next Steps

145. The Ministry recommends that you agree to the relocation of Redcliffs School to Redcliffs Park, and direct the Ministry to progress the due diligence to inform the build for this site accordingly.
146. In your meeting with the Board on 7 July, you informed the Board that the closure process was at an end, and that you had directed the Ministry to investigate the feasibility of relocation and the potential psychosocial implications of a return to the Main Road site. Your letter stated that *'The Ministry will work with your Board to ensure that you, as well as the wider community, have the opportunity to have input into these pieces of work'*.
147. There is no legislative process for a school relocation, and therefore you are able to make a final decision (or ask the Ministry to decide on your behalf), that the school should relocate. The Board, as representatives of the community, have been closely involved in this process, and have had an opportunity to respond to the full technical reports and sections of this report to you.
148. The Ministry recognises that the community has previously been actively involved in responding to your closure proposal and your interim decision for closure. Furthermore, community consultation on potential sites has not been possible for either the Ministry or the Board to conduct, due to commercial sensitivity.
149. The Ministry considers that the BoT and Community should be involved in developing the plan for the school. If your preferred option is relocation, then the Ministry will work with the Board to progress this consultation alongside the site acquisition process.



# Redcliffs Report – October 2016

Appendix 1 : Board's commentary on technical reports and draft sections of Education Report  
(to be received 10<sup>th</sup> Oct)

Appendix 2 : Project Plan and Psychosocial Scope

Appendix 3a : Experts Opinions on Psychosocial Investigation

Appendix 3b : Psychosocial Synthesis and Literature Review

Appendix 4 : Comments by Nick Harwood on Psychosocial Reports

Appendix 5 : Alternative Site Selection Assessment, Redcliffs School – *The Property Group report 1*

Appendix 6 : Comments by Nick Harwood on The Property Group Report

Appendix 7 : Technical note, Tonkin & Taylor

Appendix 8 : Alternative site selection assessment, Redcliffs School – *The Property Group report 2*

Appendix 9 : Rough Order Cost Budget

Appendix 10 : Quote for Gabion Basket Wall