

BEFORE THE VARIATION 2 HEARING PANEL

IN THE MATTER

of the Resource Management
Act 1991

AND

Variation 2 to the proposed
Second Generation Dunedin City
District Plan (2GP)

STANTEC NEW ZEALAND – RESPONSE TO SUBMITTER EVIDENCE

Dated 31 August 2022

Introduction

1. This memo contains Stantec's response to the submitter evidence provided in relation to the Variation 2 greenfield rezoning hearing.

GF14 – 336 and 336A Portobello Rd

2. **Site summary/background:** The site is a steep north facing aspect with slopes generally around 25 degrees but up to 40 degrees locally. Our original high level assessment classed this site as "Medium" risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping. Our recommendation was that the site was likely to be developable provided there was adequate engineering assessment and design input. Given the above mentioned risk factors, geotechnical assessment was recommended to determine the constraints for further development of the site.
3. **Geotechnical assessment review:** The provided geotechnical assessment from Terra MDC appears to address all of the typical risk factors for a site of this nature. There are a number of identified geotechnical hazards in their report relating to existing tracks, uncontrolled fill, erosion, and retaining features on the site. In general, these are localized or related to surficial loess creep that will require design and earthworks to rectify as part of the development. The site does not appear to have any endemic global slope stability risk that would be exacerbated by future development. The general impression of the report is summed up in this quote:

"It is considered in general that the site will be suitable for the proposed sub-division with appropriate engineering and detailing to fully support this development, with further specific investigation undertaken as the design progresses from concept into detailed design."

4. **Outcomes from review:** The geotechnical assessment report aligned with and confirmed our expectations for the site. There are still a number of hazards on the site that will need to be mitigated through engineering design and general good earthworks practices. The outcomes of the assessment clearly supports the proposed rezoning of the site. We consider that the evidence provided (Terra MDC's report) is sufficient validation that the site is suitable for the proposed rezoning.

RS193 – 177 Tomahawk Road

5. **Site summary/background:** The site consists of alluvial flats adjacent to Tomahawk Lagoon and steeply rising second phase volcanic rock to the west up to 35 degrees. Our initial high level review of the site revealed several concerning hazards. The flats appears to have a landfill hazard overlay and the sloped areas are generally very steep. There appears to be land instability on the adjacent land to the north within similar geology and slope angles.

The combination of these factors and the intended rezoning to General Residential 1 resulted in our recommendation for the site to be “high” risk. The “high risk” category was generally used to describe a site that we were not sure was appropriate for the proposed rezoning. It is worth noting that there was no lot layout plans available at the time of our original assessment, so we have conservatively assumed small lot sizes would be sought over the whole site.

6. **Geotechnical assessment review:** The Geosolve report addresses potential geotechnical hazard conditions, general feasibility of residential development, constraints to residential development and recommendations for future subsurface investigations. The report demonstrates an excellent understanding and advice to address the site slope related hazards. The report recommends that there appears to be no sign of instability or spring flows and deems the site to be at low risk of land instability. The potential lot layout plan provided in their report is predominantly within the relatively mellow part of the site. There is a recommendation that further investigation and slope stability hazard assessment will be required to support subdivision stage.
There has been no mention of the landfill hazard overlay, however it appears that no lots are sought in this area?
7. **Outcomes from review:** The geotechnical assessment provided a much more favorable assessment of the site than our high level desktop study. There are still very steep areas within the site that would be potentially unsuitable for development, and low lying areas with landfill hazard overlays. Our approach was to generalize the whole site risk level based on these. The Geosolve report identifies potential areas for development that appears to be reasonable and avoids the major hazards of the site. There are still a number of geotechnical risks on the site that will need to be mitigated through engineering design and general good earthworks practices. Based on the evidence provided in Geosolve’s report, we consider that there is sufficient validation that the site is suitable for the proposed rezoning. Though the lot layouts on the site may be governed by geotechnical constraints.

GF03 – 16 Hare Road and 7 Kayforce Road, Ocean View

8. **Site summary/background:** The site is relatively flat alluvial terrace with a very steeply rising schist hill on the north boundary of the site. Our original high level assessment classed this site as “Low” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping. Our recommendation was that the site was likely to be developable provided there was adequate engineering assessment and design input. Since the original assessment, we received a submission regarding flood concerns. This is not something that was indicated in any hazard mapping or anticipated to be a problem. However, the submission noted several cases of flooding where properties and access was inundated. We changed this site to a “medium risk” site based on this information, and in the absence of a detailed assessment. The applicant has since provided a stormwater assessment that addresses these concerns.
9. **Site specific evidence review:** The provided assessment from Flood Sense Limited appears to address the concerns raised by the submission. The report seems to have a slight

misunderstanding of the use of risk levels in our planning responses. We are not deeming the site low or medium risk regarding flooding specifically, our hazard level expresses the level of concern we have for the site based on a high level desktop overview of all readily available hazard information. In this case, a piece of information was received by the public with flooding concerns. Rightly or wrongly, we must take this into consideration in the absence of a site specific assessment. Whether the site is deemed “low” or “medium” risk is an indication that the site needs more investigation and assurance that the proposed development is suitable. The quoted hazard level does not preclude development. Never the less, deeming the site “medium” has had the desired effect and resulted in the commissioning of professional stormwater advice. The general outcome of this assessment is that there is a low risk of flooding. The report suggests the flood risks of the site are likely to be controlled by minor stream upgrades such as clearing debris and earthworks.

10. **Outcomes from review:** The assessment report aligns with our original review of the site and has dismissed the concerns of the opposing submission. The outcomes of the stormwater assessment clearly supports the proposed rezoning of the site. We consider that the evidence provided is sufficient validation that the site is suitable for the proposed rezoning. Stormwater assessments and flood mitigation design will likely be requested in the form of standard conditions at the time of resource consent/development.

RS176 – 234/290 Malvern Street

11. **Site summary/background:** The site is a 15.82ha property that is currently zoned Rural Residential 2. The land contains a single dwelling, various areas of pasture and native bush. The submitter has supplied to Council a proposed Structure Plan that shows a total number of three sites within the property. Our original high level assessment classed this site as “Low to Medium” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping. Our recommendation was that the site was likely to be developable provided there was adequate engineering assessment and design input to ensure the proposed lots were appropriately considered. We did not review any geotechnical assessments as part of our original review.
12. **Geotechnical assessment review:** The provided geotechnical assessment from Geolink appears to address a number of land instabilities and appropriate building platform locations. Although it is quite hard to interpret the Geolink report, it appears to specifically address the two areas that are proposed to have building platforms. These locations are deemed to be on stable terraces and notes that building platforms should be further than 30m from any scarp.
13. **Outcomes from review:** The geotechnical assessment report is consistent with our expectations for those areas of the site. A number of land stability hazards exist on the site that will need to be mitigated through appropriate offsets and lot layout. The assessment of stable building platforms clearly supports the proposed rezoning of the site. We consider that the evidence provided is sufficient validation that the site is suitable for the proposed rezoning from a hazards perspective.

RS205 – 761 Aramoana Road

14. **Site summary/background:** The site consists alluvial flats at the base of a steep rock face. We have previously reviewed this site back in May 2021 as part of SUB-2021-53. We also reviewed it as RS205 for rezoning. Our original high level assessment of the site was that the site was relatively consistent with the adjacent lots along Aramoana Rd. Though considered there to be significant hazards associated with development of the site. We rejected SUB-2021-53 based on the provided Geolink report and suggested that a more current assessment is required before reassessment. From our understanding, no further geotechnical assessments were sought and this rezoning application provides the same Geolink report as evidence.
15. **Geotechnical assessment review:** The Geolink report is outdated and requires a new assessment to be undertaken based on the proposed layout. There is a passing comment in Appendix 1 that suggests the site is more vegetated than before and that the risk is lower. This statement appears to not be a geological assessment from a suitably qualified engineer, but an opinion of the report writer. However, we consider that the risk of rockfall can be mitigated by suitably designed rockfall barriers (if required), and further assessment is not required prior to rezoning. The provided coastal assessment suggests the land is suitable for rezoning.
16. **Outcomes from review:** We consider that the issues associated with liquefaction and coastal hazards are appropriately addressed in the provided information. The rockfall hazard and Geolink report provided is acceptable at the current stage of rezoning but the site will require a new rockfall assessment to support any subdivision application in the future. The outcomes of this will inform the rockfall protection required (if any) and areas that may be at risk of inundation. We consider that the evidence provided is sufficient validation that the site is suitable for the proposed rezoning from a hazards perspective

RS14 – 25 McMeakin Road

17. **Site summary/background:** The site of 25 McMeakin Road is a portion of the RS14 site. The land contains mainly pasture. Our original high level assessment classed RS14 as “High” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping, in this case, mine workings. Our recommendation was; *“Extensive geotechnical assessments are required to identify suitability (or not) of the site for higher density development. The specific assessments would be required to confirm the extents and impacts of historic mine works, and global stability of the site. It is possible that extensive hazard mitigation design and conditions would be required for development in much of this area.”* These comments applied to RS14 as a whole.

We have since reviewed a geotechnical desktop report from Geosolve for one of the adjacent sites (45 McMeakin Road, S228.003). This report, while it is only addressed to the area of 45 McMeakin Rd, provides some additional information around mine workings in the general area.

18. **Supporting document review:** In the absence of a site specific assessment, and inferring mining extents from the Geosolve report for 45 McMeakin Rd - it appears that the site of 25 McMeakin Rd is situated outside of the mine working areas. We have reviewed Geosolve's interpreted mine working areas, and the historic hand drawn maps. We agree that the address of 25 McMeakin Road is one of the lower risk sites within RS14. There is limited advice in the report regarding land stability of the site of 25 McMeakin Road. The report discusses two existing landslides on adjacent sites and recommends that residential activity avoids these mapped areas in the absence of further investigation. There are no mapped landslides or slopes greater than 12 degrees within 25 McMeakin Rd
19. **Outcomes from review:** The Geosolve report provides some relevant advice that suggests developability of the site. We consider that the evidence provided is sufficient validation that the site is suitable for the proposed rezoning from a hazards perspective. As alluded to in the evidence submission, the residual hazards on the site will be controlled through the normal resource consent processes. If development is proposed within the mapped flood area, further investigations and design will be required.

RS14 – 42A Lambert Street

20. **Site summary/background:** The site of 42a Lambert Street is a portion of the RS14 site. The land contains mainly pasture. Our original high level assessment classed RS14 as "High" risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping, in this case, mine workings. Our recommendation was; *"Extensive geotechnical assessments are required to identify suitability (or not) of the site for higher density development. The specific assessments would be required to confirm the extents and impacts of historic mine works, and global stability of the site. It is possible that extensive hazard mitigation design and conditions would be required for development in much of this area."* These comments applied to RS14 as a whole, but is still very applicable to the portion of the site 42a Lambert Street. We have since reviewed a geotechnical desktop report from Geosolve for one of the adjacent sites (45 McMeakin Road, S228.003). This report, while it only addressed the area of 45 McMeakin Rd, provided some additional information around mine workings in the general area. The outcomes of our review was that the site is still high risk and needing geotechnical assessments.
21. **Supporting document review:** The provided supporting document from Patterson Pitts doesn't address the key hazards of the site related to mine working at all. The quote *"We submit that the hazard issues on this part of RS 14 are considerably less pronounced than those on other parts of RS 14, and that residential development on the land at 42a Lambert*

Street is viable from both an engineering and economic perspective.” appears to be unsubstantiated as there is no engineering assessment provided to back this up. In the absence of a site specific assessment, and inferring mining extents from the Geosolve report for 45 McMeakin Rd - it is possible that the site of 42a Lambert Street is situated in the worst part of the mining hazard area. Geosolve labeled an area further along the coal seam as unsuitable for development. This is the most relevant piece of information we have reviewed nearby the subject site.

22. **Outcomes from review:** There is no substantiated evidence to suggest that the site is appropriate for development. The only relevant information we could find for an adjacent site suggests that the 42a Lambert Street could be in one of the most active areas in the mine zone.

We consider that the evidence provided is NOT sufficient validation that the site is suitable for the proposed rezoning from a hazards perspective. Geotechnical investigations and advice, specifically relating to historic mining hazards, is required to support the rezoning.

RS14 – 45 McMeakin Road

23. **Site summary/background:** The site of 45 McMeakin Road is a portion of the RS14 site. The land contains mainly pasture. Our original high level assessment classed RS14 as “High” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping, in this case, mine workings. Our recommendation was; *“Extensive geotechnical assessments are required to identify suitability (or not) of the site for higher density development. The specific assessments would be required to confirm the extents and impacts of historic mine works, and global stability of the site. It is possible that extensive hazard mitigation design and conditions would be required for development in much of this area.”*

These comments applied to RS14 as a whole, but is still very applicable to the portion of the site 45 McMeakin Rd.

We have since reviewed a geotechnical desktop report from Geosolve for 45 McMeakin Road, S228.003.

24. **Supporting document review:** It appears that the northern portion of the site of 45 McMeakin Rd is situated within part of the mine working areas. We have reviewed Geosolve’s interpreted mine working areas, and the historic hand drawn maps. The Patterson Pitts structure plan also includes these mine areas. Mine subsidence is the primary hazard of the site and is discussed in Geosolve’s report. The extents of the historic mine operations is split into two categories; “possible for development” (following further geotechnical investigation), and “not recommended for development”. The report also provides advice regarding land stability. The report discusses two existing landslides on adjacent sites and recommends that residential activity avoids these mapped areas in the absence of further investigation. Although there are no mapped landslides in 45 McMeakin Rd, there are many locations with slopes over 15-20 degrees, all within the same geology. Trees have been planted in some of the steepest areas.

25. **Outcomes from review:** The Geosolve report provides some relevant advice that suggests developability of parts of the site. We consider that the evidence provided is sufficient validation that parts of the site are suitable for the proposed rezoning from a hazards perspective.

As alluded to in the evidence submission, the residual hazards on the site will be controlled through the normal resource consent processes. If development is proposed within the steep areas of the site, or within the mapped flood area, significant further investigations and design will be required.

The resource consent conditions will not permit residential activity within the mine hazard areas, or within a buffer zone around these mapped areas, unless significant further investigation and historic mine mapping is undertaken.

RS14 – 55 McMeakin Road

26. **Site summary/background:** The site of 55 McMeakin Road is a portion of the RS14 site. The land contains mainly pasture. Our original high level assessment classed RS14 as “High” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping, in this case, mine workings. Our recommendation was; *“Extensive geotechnical assessments are required to identify suitability (or not) of the site for higher density development. The specific assessments would be required to confirm the extents and impacts of historic mine works, and global stability of the site. It is possible that extensive hazard mitigation design and conditions would be required for development in much of this area.”*

These comments applied to RS14 as a whole, but is still very applicable to the portion of the site 55 McMeakin Rd.

We have since reviewed a geotechnical desktop report from Geosolve for one of the adjacent sites (45 McMeakin Road, S228.003). This report, while it is only addressed to the area of 45 McMeakin Rd, provides some additional information around mine workings in the general area.

27. **Supporting document review:** In the absence of a site specific assessment, and inferring mining extents from the Geosolve report for 45 McMeakin Rd - it appears that the site of 55 McMeakin Rd is situated outside of the mine working areas. We have reviewed Geosolve’s interpreted mine working areas, and the historic hand drawn maps. We agree that the address of 55 McMeakin Road is one of the lower risk sites within RS14.

There is limited advice in the report regarding land stability of the site of 55 McMeakin Road. The report discusses two existing landslides on adjacent sites and recommends that residential activity avoids these mapped areas in the absence of further investigation.

Although not mentioned in the Geosolve report, there is also a large pre-historic landslide mapped right through the middle of 55 McMeakin Rd where slopes angles are locally up to 20 degrees. Trees have been planted in all areas where slopes exceed 12 degrees. Geosolve suggests that “development within these areas may be possible in the future, but would require extensive geotechnical investigations, slope stability analysis and possibly stabilisation works”, and that “further investigation of landslide hazard will be required for any subdivision within [the site], however it is notable that the landslide areas are limited in extent and unlikely to widely influence the majority of [the site]”.

28. **Outcomes from review:** The Geosolve report provides some relevant advice that suggests developability of parts of the site. We consider that the evidence provided is sufficient validation that parts of the site are suitable for the proposed rezoning from a hazards perspective.

As alluded to in the evidence submission, the residual hazards on the site will be controlled through the normal resource consent processes. If development is proposed within the mapped pre-historic landslide overlay, or within the mapped flood area, significant further investigations and design will be required.

RS110 – 23 Sretlaw Place

29. **Site summary/background:** The site is a relatively mellow north-east sloping farm. Our original high level assessment classed this site as “Medium” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping. Our recommendation was that the site was likely to be developable provided there was adequate engineering assessment for the land instability concerns.

30. **Geotechnical assessment review:** The provided geotechnical assessment from Geosolve appears to address the key land stability hazard on the site. In general, the mapped landslide was interpreted to be low risk, and the general stability of the site was favourable. The site does not appear to have any endemic global slope stability risk that would be exacerbated by future development.

Geosolve did not find any trace of unstable features but did identify several ephemeral flow paths and channels. Stormwater flows and flooding is likely to affect the site to some degree, however will be controlled at the time of resource consent via conditions.

31. **Outcomes from review:** The geotechnical assessment report addressed our concerns for the site. There are still a number of hazards on the site that will need to be mitigated through engineering design and general good earthworks practices. The outcomes of the assessment clearly supports the proposed rezoning of the site. We consider that the evidence provided (Geosolve’s Report) is sufficient validation that the site is suitable for the proposed rezoning.

GF05 – 353 Main South Road

32. **Site summary/background:** Our original high level assessment classed this site as “High” risk. This categorization was chosen based on a number of factors; such as slope angle, underlying geology, historic landslide activity nearby and other hazard mapping. Our recommendation was that the site is unlikely to be suitable for development unless significant geotechnical advice and design is sought. We mentioned that there is at least one site in the Grand Vista Subdivision that is subject to Section 72/73 of the building act, and that land instability has been noted at recently as 1970. There are also restrictions to development around the Miller Street landslide.

33. **Geotechnical assessment review:** The provided geotechnical assessment from Geosolve addresses the land stability hazards of the site. The primary concern for this site is the presence of the Miller Street landslide. Geosolve test pits indicate favorable ground conditions outside of the Miller St landslide, and confirms unfavourable landslide conditions within the Miller Street landslide. The area outside of the Miller Street landslide appears to be relatively benign and suitable for rezoning. However, there will be resource consent conditions requiring the provision of future geotechnical assessments, design and construction advice. This advice is likely to dictate subdivision lot layouts.

34. Geosolve recommends that residential development within the Miller Street Landslide is feasible, given “some specific measures” for design and construction. These measures include “piled structures with easy access underneath to enable re-levelling in the event of any movement”, and use of ductile materials for dwellings in case of movement. The report states that the site is classified as “low risk of global slope instability, provided the recommendations of this report are followed”. Then continues on:

However, if minor creep movement does occur then this may cause some damage. The type of damage that may be expected in that case comprises slight changes in foundation levels, accumulation of minor racking damage in the longer term and minor cracking of rigid materials. This can generally be addressed by a commitment to a moderate degree of future maintenance.

35. The report suggests that there is precedent for subdivisions within landslide debris in Dunedin, however some of these have been subject to Section 72-73 of the Building Act (making them uninsurable among other complications). There is also mention of precedence as there are 20 dwellings within the “likely” area of the Miller Street Landslide.

36. **Outcomes from review:** Our response to Geosolve’s report can be broken down into 3 sections. GF05, GF05a + gully feature, and review/ history of Golder’s Grandvista report.

37. **GF05:** The Geosolve report appropriately addresses land stability concerns on the site. We concur that the land outside of the Miller Street landslide and the “gully feature” appears to be readily developable, subject to further investigations and geotechnical advice/constraints as part of standard resource consenting. The report provided is suitable evidence to support the rezoning of select areas within 353 Main South Rd.

38. **GF05a and gully feature:** We are left conflicted after reading the advice regarding the gully feature and the Miller Street landslide. There appears to be consistent sentiment that the Miller Street landslide and gully feature is at “low risk of land instability” and feasible for residential development. Then in contrast, consistent comments throughout the report appear to the contrary. Here are four such comments:

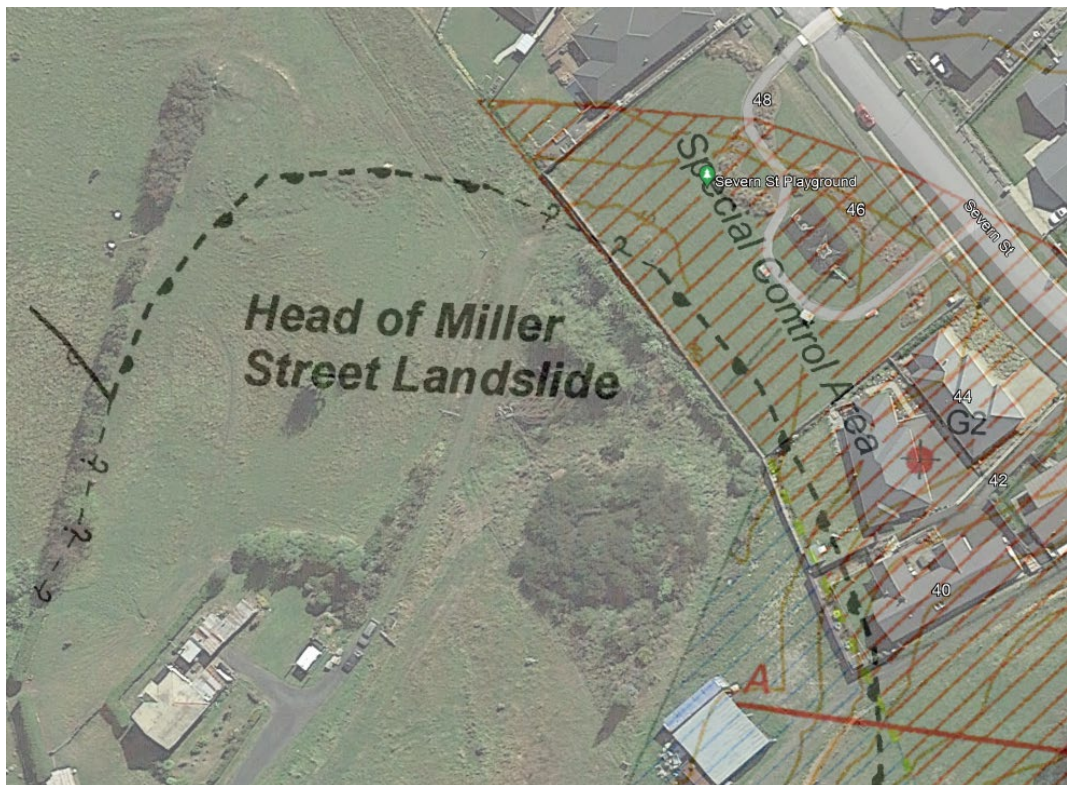
Particular emphasis on geotechnical advice should be applied to any proposal for residential development on land steeper than 15 degrees or within the gully area/Miller St landslide shown approximately on Figure 6. These areas may be better suited to reserves, however with sufficient engineering and acceptance of risk, some areas such as these could be considered for development.

The test pit that was excavated in this area (TP 11), shows less favourable geotechnical conditions than elsewhere on the property (e.g. softer soils, slickensides and groundwater at 1.6 m depth). This is consistent with landslide terrain.

However, if minor creep movement does occur then this may cause some damage. The type of damage that may be expected in that case comprises slight changes in foundation levels, accumulation of minor racking damage in the longer term and minor cracking of rigid materials. This can generally be addressed by a commitment to a moderate degree of future maintenance.

Our main recommendation in landslide terrain is to ensure that structures are piled with easy access underneath to enable re-levelling in the event of any movement. The general

39. There is also a few paragraphs on page 10 that discusses the use of Section 72-73 of the Building Act to enable dwellings to be constructed on landslide debris.
40. In our opinion, all of the above comments are a strong indication that the site is not appropriate for rezoning. These comments would be appropriate in support of a subdivision or land use consent application for constructing a dwelling on land that is already zoned correctly, but not for a new rezoning.
41. We recommend that land should not be rezoned into a situation where Section 72-73 encumbrances are even a consideration, or where dwellings would need to be designed for creep and maintenance to prevent cracking.
42. **Review of Golder's report:** The "1970s scarp" was the original reasoning behind a "special control area" imposed over part of the Grandvista subdivision area. It was formerly assumed that the 1970s scarp was part of the Miller Street rotational landslide complex up until 2009. To contest this assumption, in 2009, Golder Associates conducted an investigation and assessment of the area which concluded that the 1970s scarp was actually an erosional feature and is not part of the Miller Street rotational slide complex. The recommendations in Golder's report was that the "special control area" within the Grandvista subdivision is no longer correct, given their findings. They provided a number of constraints and offsets from the Miller Street landslide in lieu of the special control area. The net result of this was reducing the area of the no build zone.
43. The area that Geosolve refers to as precedent for development which contains 20 dwellings (GNS "likely" landslide area) is the old "special control area" which has since been revised by Golder. None of the houses in the Grandvista subdivision are constructed within the revised Miller Street landslide exclusion zones recommended in Golder's report. An example of this can be seen in 44 Severn Street where a dwelling is constructed on an angle to allow for the recommended 10m offset from the headscarp of the Miller Street landslide.



44. In summary, after a more detailed study into the history of the site and some concerning comments in Geosolve's report, we do not support increased density rezoning of any land within the Miller Street landslide complex. We do acknowledge that some areas of the site are more suited for increased density, outside the Miller Street landslide and gully features.

RS195 – 774 Allanton-Waihola Road

45. **Site summary/background:** We have not previously reviewed this site, however we have reviewed RS200 on the other side of Allanton which is largely on similar geology and constraints. 774 Allanton-Waihola Road is in closer proximity to the Taieri River and parts of the site are threatened by flood risk. We have also searched the database for the adjacent Allanton subdivision and studied some of the challenges from this site.
46. **Geotechnical assessment review:** The provided report from Geosolve addresses the hazards of the site. We also checked the site for mapped hazards in the DCC hazard database. All of the identified hazards of the site have been appropriately addressed. The primary hazards of the site include flood, liquefaction and land stability. We agree that all of the primary hazards of the site are of concern to the lower lying areas near the Taieri River, and the gully features. The structure plan generally shows residential activity outside of these hazard mapped zones. Upon reviewing information about the adjacent Allanton developments, it appears that there are a number of stormwater/overland flow issues that are currently affecting several dwellings and lots. The global setting for 774 Allanton-Waihola Rd is largely the same and

will likely have similar problems with overland flow that will need to be addressed through appropriate design.

47. **Outcomes from review:** In general, we consider that the provided Geosolve report adequately addresses the hazards of the site and we agree that the site is generally suitable for rezoning from a hazards perspective. As with most sites, the structure of the subdivision and any future earthworks will likely be governed by the hazards present on the site. Resource consent will require any subdivision of this area to address overland flow and place restrictions on slope angles, retaining features, and earthworks.