

MOUNT CARDRONA STATION

Request for a Change to the
Operative Queenstown Lakes District Plan

Assessment of Effects on the Environment

6 December 2016

BROWN&COMPANY
P L A N N I N G G R O U P



1. Introduction

In requesting this plan change the Requestor is required, pursuant to Clause 22 of the Schedule 1 to the Resource Management Act 1991 (the **Act**), to assess the effects of the activities enabled by the Change on the environment.

The assessment of effects on the environment is set out in this document. It addresses Clauses 6 (information required in assessment of environmental effects); and 7 (matters that must be addressed by assessment of environmental effects) of Schedule 4 of the First Schedule to the Act.

The following categories of effects on the environment are addressed in this assessment:

- Effects in relation to urban design;
- Effects on cultural values;
- Effects on ecological values;
- Effects on landscape and visual amenity values;
- Effects on archaeological values;
- Effects on traffic;
- Effects in relation to geotechnical conditions and natural hazards;
- Effects in relation to soil contamination;
- Effects in relation to water supply and wastewater disposal;
- Positive effects.

The assessment takes into account and summarises the detailed technical reports prepared by experts in the relevant environmental and cultural disciplines. The technical reports are an integral part of this Request. The environmental discipline, report author and document number are set out in the following table:

Discipline	Name of report, author and date	Document No.
Effects in relation to urban design	<i>Urban Design Assessment: Mount Cardrona Station – Private Plan Change</i> , by Ian Munro and Nicola Tagiston, November 2016	DOCUMENT 7
Cultural impact assessment	<i>Cultural Values report for: Cardrona Valley Proposed Plan Change – Site Inspection</i> , Kai Tahu ki Otago, 2 April 2006; and Letter from Chris Rosenbrook (Manager) KTKO Consultancy Ltd, 26 October 2016.	DOCUMENT 8
Effects on ecological values	<i>The Ecological Values of Mt Cardrona Station</i> , Neill Simpson, November 2006 and <i>Addendum to the Ecological report</i> , Neill Simpson, October 2016	DOCUMENT 9
Effects on landscape values	<i>Mount Cardrona Station Proposed Plan Change – Landscape and Visual Effects Assessment Report</i> by Ben Espie, November 2016	DOCUMENT 10
Effects on archaeological values	<i>Mount Cardrona Station Archaeological Assessment of Study Area</i> , Angela Middleton, May 2006; and	DOCUMENT 11

Discipline	Name of report, author and date	Document No.
	<i>Mount Cardrona Station Addendum 2016</i> , Angela Middleton, September 2016	
Effects on traffic safety and efficiency	<i>Mt Cardrona Station Plan Change, Cardrona, Traffic Assessment</i> , Don McKenzie / Chris Rossiter (Traffic Design Group), June 2007; and <i>Letter from Traffic Design Group</i> , Chris Rossiter 29 November 2016	DOCUMENT 12
Effects in relation to geotechnical conditions and natural hazards	<i>Geotechnical Hazards – Preliminary Assessment Proposed Mt Cardrona Station Private Plan Change</i> , Fraser Wilson (Geosolve), October 2016	DOCUMENT 13
Effects in relation to soil contamination	<i>Preliminary and Detailed Site Investigation for The Mt Cardrona Station Village</i> Glenn Davis Davis Consultants Ltd, October 2016.	DOCUMENT 14

2. Effects in relation to urban design

The MCSSZ was created with a strong focus on creating a settlement that would achieve best practice urban design principles, which are reflected in the structure plans and the objectives, policies and rules. The changes to the structure plan, and consequential changes to provisions, will affect the urban design integrity of the Zone and the changes therefore need to be assessed from an urban design perspective.

The report *Urban Design Assessment: Mount Cardrona Station – Private Plan Change*, by Ian Munro and Nicola Tagiston, dated November 2016 (**DOCUMENT 7**) addresses the urban design implications of the Change. The key conclusions of this report are:

- (a) The Change is in line with the operative MCSSZ objectives and policies and, in particular, the rules and assessment matters will give rise to quality design outcomes which create a successful and distinctive alpine character settlement.
- (b) The proposed road and block pattern is likely to result in a less rigid urban network than the operative structure plan, which is less preferable in pure urban design terms but nonetheless is still fitting for the rural setting and landscape attributes of the site.
- (c) Building masses and densities are appropriately located relative to visual and landscape sensitivities, the site's topography and historic heritage.
- (d) The Change achieves a density and likely residential yield that is consistent with what has been enabled for the MCSSZ and will more than likely result in a similar overall scale of activity on the site.
- (e) The concentration of commercial and visitor accommodation activities (in Activity Area 1a) will help the village centre develop as a viable and vibrant node for both local community and visitor use.
- (f) The provision of a village square within the village centre will offer opportunities for formal and informal social interaction.
- (g) The proposal achieves all relevant urban design considerations relating to walkability and opportunity for longer term / wider integration with the trail network as the settlement grows in future stages.

The report states that overall, the proposed amendments to the Operative MCSSZ are minor and will not give rise to urban design effects that are problematic or which otherwise cannot be suitably managed through the consent framework. The inclusion of a golf course is supported and will help give a more sustainable purpose to the village.

The report provides recommendations for achieving specific urban design goals. These, and the method for adopting each into the Change, are:

- ***That the planning provisions require, for each of the Activity Area 6 'fingers', a lighting solution allowing for safe evening use by pedestrians, if road edges are not proposed. This is envisaged to allow for low intensity, down-cast bollards.***

This recommendation is inherent in the Design Guidelines.

- ***That the cul-de-sac roads or access ways should be avoided where practicable; and***
- ***That rear lots should be avoided where practicable.***

This recommendation is accepted and cul-de-sac roads and rear lots will be avoided where practicable. However, it is inevitable that in designing a practical configuration of lots, there will be some rear lots gaining access by rights of ways, access strips or laneways given the constraints of the golf course and the historic water race, and the desire to maximise the number of lots with frontage to and/or outlook over the open space within Activity Areas 6 (commonage fingers), 7b (heritage protection), and 9 (golf course).

- ***That commercial development in Activity Area 1b should occur only where it can be demonstrated that there is more commercial demand than can be accommodated in Activity Area 1a.***

Commercial development in Activity Area 1b is to be a discretionary activity, with discretion over (in summary) the impact of commercial in Activity Area 1b on the vibrancy and cohesion of Activity Area 1a.

- ***That buildings and landscaping should be designed to provide for passive surveillance over and activation of the village square and commonage areas.***

This recommendation is taken into account in the modifications to the assessment matters for buildings within Activity Area 1a.

- ***A primary entry point of any relevant building in Activity Area 1a should be oriented towards the village square.***

This recommendation is taken into account in the modifications to the assessment matters for buildings within Activity Area 1a.

- ***Blank walls should be minimised and ground floor elevations should be designed with unobstructed views to the village square from major and minor openings.***

This recommendation is taken into account in the modifications to the assessment matters for buildings within Activity Area 1a.

- ***Views to tees and greens should be considered in the design of any building in Activity Area 1a.***

This recommendation is taken into account in the modifications to the assessment matters for buildings within Activity Area 1a.

- ***Buildings should incorporate landmark design elements that demonstrate innovative architectural design and/or articulation in the use of materials and treatments.***

This recommendation is taken into account in the assessment matters for buildings and in the Design Guidelines.

- ***Buildings should be responsive to micro-climatic conditions and incorporate appropriate design measures that provide protection from the weather in a safe and attractive manner.***

This recommendation is already inherent in the Design Guidelines.

The report's main findings and conclusions are:

- Golf activities and the resulting settlement structure are a compatible fit in urban design terms and can enable a well-designed development that remains responsive to its landscape setting.
- The site will remain functionally linked and complementary to Cardrona Village, bringing greater residential and tourist catchment to the Cardrona Valley.
- The new structure plan proposal remains in line with the Operative District Plan Section 12.21 objectives and policy for development in the Special Zone, and still reflects accepted industry standards for urban design.
- The proposed Plan Change provisions and urban design recommendations are sufficient to ensure an appropriate development response will occur on the site.
- The Request should be accepted from an urban design perspective on the basis that various urban design recommendations are incorporated.

3. Effects on cultural values

Effects of the original plan change for MCSSZ were addressed in the cultural impact assessment *Cultural values report for: Cardrona Valley Proposed Plan Change – Site Inspection – 2nd April 2006* prepared by Kai Tahu ki Otago ([DOCUMENT 8](#)). The *letter from Chris Rosenbrock (Manager) KTKO Consultancy Ltd dated 26 October 2016* (also in [DOCUMENT 8](#)) states that the findings and recommendations of the 2006 cultural values report are equally relevant to the new proposal and the 2006 recommendations to facilitate iwi values in preserving heritage and land values are still valid. These are:

- (a) Take into account the *Kāi Tahu ki Otago Natural Resource Management Plan 2005*, including the plan philosophy of Ki Uta Ki Tai . holistic management.
- (b) That the issues, objectives and policies from the *Kāi Tahu ki Otago Natural Resource Management Plan 2005* are taken into account and addressed fully in the Queenstown Lakes District Councils section 32 analysis (Plan Change 18)
- (c) Where present, encourage wetland plant species and wetland development in general.
- (d) If koiwi (human skeletal remains), waahi taoka (resource or object of importance), waahi tapu (place or feature of special significance) or other artefact materials are discovered work shall stop, allowing for a site inspection by the appropriate Rūnaka and their advisors. These people will determine if the discovery is likely to be extensive and whether a thorough site investigation will be required. Materials discovered should be handled and removed by takata whenua who possess knowledge of tikanga (protocol) appropriate to their removal or preservation.

- (e) Waipuna have special importance to Kāi Tahu, both as a reliable water source, and in a spiritual context. They would like to see the spring protected and enhanced.
- (f) Recognition of the area as being a junction of significant ara tawhito, and ensuring that access for Kāi Tahu hiko is preserved.
- (g) Encourage planting of native plant species and the removal of introduced plants (e.g. rosehip) with the aim of returning the landscape to its natural equilibrium.

These recommendations are accepted and are addressed by the plan change and the District Plan as follows:

- In relation to (a) and (b) above, the K i Tahu ki Otago Natural Resource Management Plan 2005 is taken into account in the section 32 for this plan change (in [DOCUMENT 4](#));
- In relation to (c), wetland areas in the Homestead Gully area are subject to specific protection and enhancement, under the Activity Area 7 provisions; and the natural stormwater runoff areas are protected by their inclusion in Activity Area 6 (open space commonage);
- In relation to (d), the provisions for earthworks take into account the potential impact on cultural heritage value, and earthworks for subdivision will be required (under District-wide provisions) to take into account effects on cultural values and accidental discoveries;
- In relation to (e), the springs (which are located in the higher land to the west of the development area are protected by their inclusion in Activity Area 7b;
- In relation to (f), these matters are accepted;
- In relation to (g), the planting plan (contained in the Design Guidelines) promotes many native species (as well as selected exotics), and the rules avoid noxious exotic species.

Accordingly, the plan change is consistent with and achieves the recommendations of the cultural impact assessment, and there are no adverse effects on cultural values.

4. Effects on ecological values

The effects of the original plan change were assessed in the report *The Ecological Values of Mt Cardrona Station*, N. C. Simpson, November 2006 and in the addendum by the same author titled *Addendum to the Ecological report* October 2016. Both documents are in [DOCUMENT 9](#).

The original report notes that the ecology of the study area bears little resemblance to the original pre-historic ecology. Only tiny fragments of the original vegetation remain. There is the potential to build on these areas by restoring elements of the original vegetation that in turn should encourage the return of other elements that include insects, birds and lizards.

The addendum notes that the reconfiguration of the housing appears only slightly different to the original plan and that there are no foreseeable changes likely to the ecology from the reconfiguration. The golf course will lead to some manicuring of the land and some change to the ecology, this is primarily changing one exotic community for another exotic community.

The golf course development offers some potential for native planting to break up the openness and may provide some food for native species of birds, insects and lizards. The proposed reservoirs may provide habitat for water birds.

The report concludes that the proposed golf course and associated reservoirs could benefit the ecology of the area and that the any negative effects are likely to be less than minor.

5. Effects on landscape and visual amenity values

The effects of development under the plan change are addressed in the report *Mount Cardrona Station Proposed Plan Change – Landscape and Visual effects assessment report* by Ben Espie (Vivian+Espie), dated 30 November 2016. The report describes and quantifies the landscape character and visual amenity effects that will result from the plan change and focusses on effects as experienced from outside the site, using the industry-established assessment methods.

The report also addresses the landscape assessments carried out in 2007 for the original plan change.

The report concludes that:

(a) In relation to landscape character:

- At a broad scale, the plan change will have a negligible effect on the landscape character of the Cardrona Valley; and
- At a fine scale, there will be some effect in that the exact nature of the village development that eventuates will be more characterised by recreation (i.e. golf) than under the existing situation, but the change does not amount to an adverse effect on landscape character.

(b) In relation to views and visual amenity:

- Replacing an area of built development with golf course activity will have some potential positive effects in that the zone will ultimately appear softer and greener and therefore less incongruous with its setting;
- Replacing some open space with extended built development (in the western part of the development area, in Activity Area 4) will have some potential adverse effects, but the proposed new open space area is more visually discernible than the proposed area of extended built development and therefore the visual effects will generally be positive but of a slight degree.

6. Effects on archaeological values

The effects of the plan change on archaeological values are addressed in the report *Mount Cardrona Station Addendum 2016*, by Angela Middleton (Arch Hill Heritage) dated September 2016 ([DOCUMENT 11](#)). This report follows up on the report by the same author for the original plan change, *Mount Cardrona Station Archaeological Assessment of Study Area* dated May 2006.

The report identifies the seven recorded archaeological sites within the plan change area. The proposed golf course will not affect any of the recorded archaeological sites. The report states that of the recorded sites, the two water races, the Cardrona and Walter Little's, are of the most significant heritage interest. They are integrally important in the history of technology of gold mining in the region, and the Cardrona Valley in particular because they were used to bring water over long distances through very dry areas and demonstrate considerable engineering ability. The chaff stone cutting ring is an important cultural asset also.

Accordingly, the report seeks that every effort should be made to preserve what remains of these races intact. In particular, the western extension area is located close to site F41/590 (Little's water race) and it is recommended that the planning ensures:

- That a one metre buffer zone is in place around the water races, in particular site F41/590, as it relates to the western part of Activity Area 4. Boundaries of these lots should be located beyond this buffer zone.
- A post and wire or post and rail fence is required along the western edge of the lots adjacent to the water race buffer zone.

These are required by the revised subdivision provisions for the MCSSZ, in Chapter 15 of the ODP. The new proposed rules requires as follows:

(v) Any subdivision consent creating an allotment or allotments with a boundary adjoining the 1m buffer separation from the Walter Little's water race (archaeological site F41/590) shall include a condition or conditions requiring that prior to certification under section 224(c) of the Act a post and wire or post and rail fence shall be constructed along the western boundary of those allotment(s).

Accordingly there are no adverse effects of the Change on archaeological values.

7. Effects on traffic

The effects of the plan change on the traffic network are addressed in the original report entitled *Mt Cardrona Station Plan Change, Cardrona, Traffic Assessment*, (Traffic Design Group, June 2007) and in the letter from Traffic Design Group dated 29 November 2016. Both documents are in [DOCUMENT 12](#).

The update letter concludes that the original access point from Cardrona Valley Road would need to be shifted north about 75m to avoid a short separation between the intersection and the existing intersection of Tuohys Gully Road, on the opposite side of Cardrona Valley Road. The Structure Plan has been amended accordingly, allowing the intersection to be developed in compliance with current best practice standards. The new location for the intersection removes the conflict with the right turn movements and still provides adequate sight distance for the speed environment.

Based on the development potential associated with the revised MCSSZ structure plan, the update letter concludes that the Zone would result in lower traffic generation than permitted under the operative provisions, and lesser traffic effects. If the MCSSZ were to be developed with the maximum number of units permitted and the golf course, then the average daily traffic generation would be marginally higher than with the residential development only. The higher volume of traffic movements would not be noticeable to drivers because it would be distributed across the day and would be within the typical range of variation in traffic volumes that will occur from day to day and across the year.

The update letter therefore finds that the proposed Change will not cause adverse effects on traffic safety and efficiency.

8. Effects in relation to geotechnical conditions and natural hazards

The original plan change was supported by a geotechnical investigations report entitled *Geotechnical Investigations – Mount Cardrona Plan Change* (Tonkin & Taylor, September 2006) and a natural hazards assessment entitled *Mount Cardrona Station – Faultlines and Hydrological Report* (Royden Thompson, 20 June 2006).

These reports have been reviewed in the report *Geotechnical Hazards – Preliminary Assessment Proposed Mt Cardrona Station Private Plan Change*, by Geosolve (October 2016) ([DOCUMENT](#)

13) which assesses the plan change area for a range of geotechnical hazards including landslide, liquefaction, erosion, debris flow and flooding.

Based on this preliminary assessment, the majority of the site is acceptably safe from geotechnical hazards. A minor level of geotechnical hazard may be present at isolated locations within the proposed development area, and site-specific investigation will be required to assess building platform locations and specific foundation designs. However, the extent and degree of any such hazards will be minor, such that they can be readily mitigated by standard planning and engineering measures.

In summary, in relation to natural hazards, the area is suitable for the proposed land uses noting that site-specific assessments will be required and localised mitigation measures may be necessary.

9. Effects in relation to soil contamination

The *Preliminary and Detailed Site Investigation for the Mt Cardrona Station Village*, by Davis Consulting Group Limited (October 2016) ([DOCUMENT 14](#)) addresses the MCSSZ land in relation to the *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2013* (the **NES**). The previous land use on the property has included agriculture, and Preliminary and Detailed Site Investigations under the NES are necessary. (Such investigations were not undertaken for Plan Change 18 which created the MCSSZ as it predated the NES introduction).

The scope of work completed during the investigation included:

- Review of the site history, including review of historical aerial photography, a previous archaeological assessment of the site, and historical documentation sourced from the Queenstown Lakes District Council, Lakes Museum and Otago Regional Council;
- Completion of a site inspection to examine the condition of the site;
- Development of a soil sampling and analysis plan based on the land use history of the site;
- Collection of 12 soil samples from the site to characterise heavy metal concentrations in surface soils that may be associated with broad area application of fertilisers and background concentrations of arsenic;
- Based on research into the activities on the site and soil quality results, consideration of the risk to human health that may be associated with the proposed land use; and
- Preparation of a combined Preliminary and Detailed Site Investigation report in accordance with the requirements of the Contaminated Land Management Guidelines No.1.

Based on the findings of the investigation, the following conclusions are reached:

- (a) Historically, the site has been used for agricultural purposes;
- (b) There is no evidence that mineral processing activities or associated mine tailings are located on the site;
- (c) A review of historical records including aerial photography and council records has found no evidence that infrastructure associated with pesticide use or storage such as yards, dips and storage sheds have been located on the site;
- (d) A systematic soil sampling program was undertaken across the site to characterise heavy metal concentrations in the surface soils of the site. The analytical results indicate that

heavy metals are present at background concentrations, below the NES soil contaminant standards for all landuse scenarios set out in the NES;

In summary, the combined Preliminary and Detailed Site Investigation has identified historical land use activities that may have impacted the soil quality of the site. Based on the results of this Investigation, the report concludes that it is highly unlikely that there is a risk to human health associated with the proposed activities on the site.

10. Effects in relation to water supply and wastewater disposal

Water is required for potable domestic supply and for irrigation of the golf course.

Mt Cardrona Station Limited has two current water permits:

Consent 2009.191 (ORC) to take and use water as primary allocation from Pringles Creek and the Cardrona River for communal domestic supply, commercial supply and irrigation. Its expiry date is 1 March 2030;

Consent 2009.435 (ORC) to take and use water as a primary allocation from Pringles Creek for irrigation. Its expiry date is 1 March 2030.

Both consents are conditional on protecting the residual flow in Pringles Creek as well as being subject to substantial performance monitoring conditions. The water permit volumes are sufficient for the needs of the full development of the MVSSZ (both potable and non-potable requirements).

MCSL also has a district consent:

RM060973.02 (QLDC) for a water reservoir, water treatment facility and associated earthworks, which expires on 12 January 2019.

Development in accordance with the Change will utilise these consents. No other consents are required. Accordingly, the Change will not affect the method of providing water for the development and will not affect any natural values associated with any water body or source.

The development will continue to use the rights afforded by consents in relation to effluent disposal. The consents are:

RM061036.02 (QLDC) for buildings for effluent treatment and associated earthworks, which expires on 12 January 2019;

Consent 2009.348 (ORC) to discharge 2164m³ per day of wastewater to land, which expires on 15 July 2045. This volume is adequate for the MCSSZ development, the Cardrona Ski Area and the expected expansion in the Cardrona village for the foreseeable future.

The Change does not necessitate any changes to these consents and they will be implemented when development commences. No other consents are required. Accordingly, the Change will not affect the method of disposing of effluent from the development and will not affect any natural values associated with any water body or source.

Further, the consented effluent disposal system has capacity to supply greater areas of development than just the MCSSZ. It is feasible to also service the existing Cardrona Village and the Cardrona Ski Area. The proposed Change may enable this service to be constructed sooner and to be connected to these areas when the MCSSZ is developed, providing additional benefit to the community.

Stormwater is managed through the open spaces (Activity Area 6) which are located around natural swales. These areas will continue to act as treatment and attenuation devices for the completed development. In addition, the controls over earthworks will further protect natural values during construction. Any construction, including in relation to the golf course, will be subject to construction management plans that will require methods to avoid or mitigate any adverse effects of stormwater runoff on natural values.

In summary, no adverse effects in relation to water supply, effluent disposal or stormwater management arise. Any potential adverse effects are recognised either in the conditions of the consents or in the development configuration and typical ongoing management techniques applied through the resource consent process, and hence will be avoided or adequately mitigated.

11. Positive effects

The proposed Change will have the following positive effects on the environment:

- (a) Renewed confidence in the ability of the MCSSZ to be developed in the near term and the economic benefits that will flow from this, including the benefits that will derive from its status as a 4-seasons destination, as discussed in the economic evaluation ([DOCUMENT 6](#));
- (b) The MCSSZ's contribution to the diversity and quality of the Queenstown-Lakes District as the premiere golf tourism destination in New Zealand, by offering a unique alpine golf experience, and contribution to supporting New Zealand's international golf tourism strategy, as discussed in the golf report ([DOCUMENT 5](#));
- (c) The positive effects of efficiency gains from accommodating a sector of Cardrona's winter market, saving daily travel from either Queenstown or Wanaka.
- (d) The positive effects of efficiency gains from enabling greater residential density within the same area;
- (e) The positive effects to the Cardrona area from providing wastewater infrastructure for the Zone and the ability to unlock Cardrona's development capacity in the area earlier than would otherwise be the case.
- (f) The positive effects to the Cardrona Ski Area from providing for a carparking area to link with shuttle buses, to alleviate the parking pressure at the ski area itself, improve road safety, and enable marked efficiencies in overall trip numbers and fuel use.

In summary, the MCSSZ Change will have significant positive effects on the environment, particularly on the social and economic components of the Cardrona environment.

12. Summary and conclusions

From the foregoing assessment the following conclusions are drawn:

- (a) In relation to the urban design:
 - Golf activities and the resulting settlement structure are a compatible urban design fit and can enable a well-designed development that remains responsive to its landscape setting;
 - The site will remain functionally linked and complementary to Cardrona Village, bringing greater residential and tourist catchment to the Cardrona Valley;

- The new structure plan proposal is consistent with the MCSSZ objectives and policy, and reflects accepted industry standards for urban design;
- The Change is sufficient to ensure an appropriate development response will occur on the site;
- The various urban design recommendations are incorporated into the Zone provisions and/or the Design Guidelines.

No adverse effects in relation to urban design will arise.

- (b) In relation to cultural values, the plan change is consistent with and achieves the recommendations of the cultural impact assessment, and there are no adverse effects on cultural values.
- (c) In relation to ecological values, the proposed golf course and associated reservoirs could benefit the ecology of the area and any negative effects are likely to be less than minor.
- (d) In relation to traffic, the main access road into the Zone is shifted on the Structure Plan so that it is in a safer location with respect to other roads in the vicinity. Any additional traffic will not be noticeable and the proposed Change will not have any adverse effects on traffic safety and efficiency.
- (e) In relation to geotechnical conditions and natural hazards, the area is suitable for the proposed activities noting that site-specific assessments will be required and localised mitigation measures may be necessary.
- (f) In relation to soil contamination, the site investigation has identified historical land use activities that may have impacted the soil quality of the site but it is highly unlikely that there is a risk to human health associated with the proposed activities.
- (g) In relation to effects on infrastructure, the planned and consented methods for water supply and wastewater will be utilised for the development, and no adverse effects arise. The Change will have no adverse effects in relation to stormwater runoff.
- (h) The Change will have significant positive effects on the environment, particularly on the social and economic components of the Cardrona Valley and on the wider District, from the introduction of a new and different golf product to complement the existing breadth of product in the District, the likely acceleration of development of the Zone from the golf course and the hotel, and the greater likelihood of the Zone being developed for permanent residents, visitors and for workers accommodation. The Change will also enable a safer and more efficient method for patrons accessing the Cardrona Ski Area, and may provide a wastewater disposal system that the wider community can utilise and benefit from.

In broad summary, the proposed Change will have no adverse effects on the environment; any adverse effects have been identified and methods are included in the Change for their avoidance or mitigation. The net effects of the Change on the environment are significant and positive.