Before an Independent Hearing Commissioner at Hurunui District Council

under: the Resource Management Act 1991

in the matter of: application RC210098 for land use consent to install and operate a Gravity-Based Recreation Activity within the Conical Hill Reserve, Hanmer Springs

between: **Hanmer Springs Thermal Pools & Spa**
Applicant

and: **Hurunui District Council**
Consent Authority

Statement of Evidence of Robert James Greenaway

Dated: 23 September 2021

REFERENCE: J M Appleyard (Jo.Appleyard@chapmantripp.com)

Chapman Tripp
T: +64 3 353 4130
F: +64 3 365 4587

60 Cashel Street
PO Box 2510, Christchurch 8140
New Zealand

www.chapmantripp.com
Auckland, Wellington,
Christchurch

STATEMENT OF EVIDENCE OF ROBERT GREENAWAY

INTRODUCTION

1 My full name is Robert James Greenaway.

2 I am a consultant recreation and tourism planner with more than 30 years' experience.

3 I graduated from Lincoln University in 1987 with a three-year Diploma in Parks and Recreation Management (with Distinction).

4 Between 1990 and 1995 I was a Recreation and Tourism Consultant at Tourism Resource Consultants in Wellington, working on a range of large and small development and advisory projects.

5 Between 1995 and 1997 I worked for Boffa Miskell Limited in Christchurch, focusing on recreation planning for local authorities and tourism development planning for private agencies.

6 Since 1997 I have been the Director of Rob Greenaway & Associates (R&R Consulting (NZ) Ltd) based in Nelson. I have comprehensive experience in undertaking recreation and tourism planning and management assessments and have completed more than 500 consultancy projects internationally.

7 I am an accredited Recreation Professional with Recreation Aotearoa (the New Zealand Recreation Association). I am also a past executive member of the National Executive of Recreation Aotearoa, and I am ex-Chair and current member of the Recreation Aotearoa Board of Accreditation. I was awarded the Ian Galloway Memorial Cup in 2004 by Recreation Aotearoa to recognise "excellence and outstanding personal contribution to the wider parks industry". In 2013 I was awarded the position of Fellow of Recreation Aotearoa.

8 I have presented evidence at approximately 100 hearings (approximately half of these were for the Environment Court or Environmental Protection Agency). These have related to a wide range of proposals in a wide range of recreation and tourism settings.

9 I am familiar with the Reserves Act 1977 and have prepared and reviewed many reserve management plans. Most recently, I prepared management plans for Saxton Field in Nelson/Tasman (the combined regional sports complex), and the Brook Recreation Reserve in Nelson. I also undertook a major revision of the management plan for the Brook Recreation Reserve in Nelson.

Additionally, I prepared the Reserves General Policies for Tasman District and the District's Open Space Strategy.

10 I am familiar with assessing the effects of development proposals on recreation and tourism, to which this matter relates. In February 2021 I prepared the report *Hanmer Springs Thermal Pools & Spa Conical Hill Flyride Project Recreation effects assessment* (Recreation Effects Assessment) which accompanied the consent application for the Flyride proposal. I have been engaged to provide recreation expert evidence in extension to this.

CODE OF CONDUCT

11 Although these proceedings are not before the Environment Court, I have read the Environment Court's Code of Conduct for Expert Witnesses in its Environment Court Practice Note 2014 and I agree to comply with it as if these proceedings were before the Court. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

12 My evidence includes:

12.1 a summary of my findings;

12.2 a review of Conical Hill as a recreation and tourism setting;

12.3 a description of the Hurunui District Council (HDC) management expectations for Conical Hill;

12.4 an assessment of the effects of the proposal on the social values of Conical Hill, according to the assessment matters that I identify in **Attachment 1**;

12.5 a review of the application considering the Reserves Act 1977 and the Hurunui District Council Reserves Management Plan 2012;

12.6 a review of submissions to the application and my responses; and

12.7 a conclusion.

13 In preparing this evidence I have reviewed:

13.1 the Application;

13.2 the evidence of other relevant specialists;

13.3 submissions lodged in relation to the Application; and

13.4 the Council Officer's Report.

SUMMARY OF EVIDENCE

14 The Hurunui District Council – via its business unit the Hanmer Thermal Pools & Spa – is applying for resource consent to develop a 'Flyride' commercial recreation activity on the western slope of Conical Hill in Hanmer Springs village. The site is a recreation reserve under the Reserves Act 1977 and is subject to the Hurunui District Council Reserves Management Plan (2012). My evidence assesses the effects of the proposal on existing recreation and tourism values at Conical Hill and reviews the proposal's compliance with the Reserves Act and the Reserves Management Plan.

15 Conical Hill is described as an iconic walk in Hanmer Springs and is the most popular track in the village. The track has a generous width and is well graded. Facilities at the summit and entrance are in poor condition. A redevelopment project has been proposed according to a 2018 concept plan. That project is expected to proceed along with the Flyride, and to be funded by it. Provincial Growth Fund funding has been secured for the Flyride proposal.

16 The Flyride will be based entirely within one land parcel gazetted as a recreation reserve under the Reserves Act. My assessment finds that, *a priori*, the proposal is consistent with the primary purpose for a recreation reserve as defined by the Act. This is particularly the case when considering the precedents set by other commercial recreation developments nationally on recreation reserves (including the Hanmer Springs Thermal Pools & Spa).

17 By reviewing national research on recreation conflict (see **Attachment 1**), my analysis identifies a set of assessment matters appropriate to review the effect of the proposal on existing recreation values. These are:

17.1 Will the proposed activity on Conical Hill represent a significant change in existing activity modes? That is, will walkers on the Reserve encounter users having a substantially different experience and using a different mode to access it?

17.2 Will the commercial component of the activity be sufficiently evident to change the experience of existing users?

17.3 Will the new activity increase the patronage of Conical Hill to the point where crowding becomes an issue or overwhelms the capacity of facilities on the Reserve, leading to more conflict between visitors?

17.4 Is the current visitor experience on Conical Hill dependent on a specialised resource that will be compromised by a commercial development?

17.5 Will commercial recreation on Conical Hill be considered generally incompatible in the context of Hanmer Springs as a visitor destination?

18 As recorded in my Recreation Affects Assessment, my opinion is that of the five assessment matters, only one raises the potential for concern – that is whether the Flyride will 'dominate' the recreation experience on Conical Hill. The tracks to the summit from both the north and the south are well-separated from the Flyride by the contours of the Hill and by mature vegetation, and the walking experience will largely remain as it is. The start station will be obvious from summit, but will not dominate the key experience, which is the view to the south from the viewing structure. Vegetation may be used to screen the start station, but sounds of activity being heard is likely. Considering that the main visitor experiences on the Conical Hill walk are the track and the view to the south from the summit, the Flyride is unlikely to 'dominate'.

19 The Officer's s42A response is in line with my assessment. In my response to submissions I note that regular users of the Conical Hill walking tracks may experience a step-change in activity on the tracks and that this may be experienced as an adverse effect. I also provide some background to the potential effects of the proposal on horse riding on the Lucas Lane accessway. I note that, according to a veterinary opinion related to windfarms, horses are unlikely to respond to movements above their eyeline, and that horse riders on Lucas Lane and other connecting tracks must be accustomed to disturbances from runners and cyclists.

20 In summary, while not directly contemplated by the Hurunui District Council Reserves Management Plan, I maintain that the development is able to be contemplated within it. The Reserves Act does not provide any direct impediment. Broadly, it can be considered an appropriate development for a recreation reserve. The site-specific issue is whether the proposal sustains and enhances recreation values on Conical Hill. My assessment finds that

– considering the obvious role of Hanmer Springs as a developed tourism destination, and the ability to sustain existing recreation values on the Conical Hill track – the proposal is acceptable from a recreation and tourism development perspective.

THE CONICAL HILL SETTING

21 Conical Hill is arguably the most popular walking destination in Hanmer Springs. I expect this is a result of its proximity to the township, its well-graded and – in the main – wide tracks (see **Figure 1** in **Attachment 2**, where all my figures lie), its reasonably achievable peak, and the grand views from the summit, particularly to the south over the Hanmer Plain. Dogs are permitted on a leash and, as there are few similar dog-walking options locally, dogs are commonly encountered. Walking only is permitted on the track on Conical Hill's southern face, while mountain bikers are able to ride via its northern face (largely outside the reserve boundary).

22 The quality of the entrance area (**Figure 2**) and the facilities at the summit (**Figure 3**) are in poor condition and do not match the stated status of Conical Hill as an icon destination. Some structures require immediate attention (**Figure 4**).

23 A pedestrian counter located at the base of the walk to the summit has recorded a steady rise in patronage from 30,476 walkers in the 2014/15 year to 52,973 in the 2019/2020 year. By comparison, the Hanmer Springs Thermal Pools & Spa has approximately 500,000 visitors annually.[1]

24 Walkers encounter a private dwelling (**Figure 5**) and Council water tank on the path (**Figure 6**). The setting is urban or urban fringe and there is no impression of having departed Hanmer Springs village for a natural or remote experience. Such experiences would be sought beyond the boundary of production forestry surrounding Hanmer Springs on, for example, the Mount Isobel, Jollie Saddle, Waterfall and the Chatterton River Tracks.

Strava – pedestrian and cycle activity indications

25 **Figure 7** shows the Strava heatmap for 'running' in Hanmer Springs for the 24 months up to November 2020. Strava is a social media application which uses GPS records from subscribers' smartphones and other devices uploaded to a central database. It allows speed and time comparisons with other cyclists, runners, kayakers and swimmers (for example), as well as the monitoring of individual activity or training targets. While the service is popular with

[1] Hurunui District Council data

professional athletes, its membership is dominated by casual recreation participants. Strava indicated that it had 50 million international users in early 2020 (80% outside the United States) with an additional million joining per month. It is now popular amongst regular cyclists and runners.

26 Comparisons between different forms of data gathering show a degree of reliability for Strava data with a range of 1% to 12% of users recorded on-site that are connected to the service; and this is growing.[2] Such response rates would compare favourably to an on-site intercept survey of users in an outdoor setting, particularly since Strava data are collected over all seasons and all day (an intercept survey would normally only cover relatively short time periods and be confined to specific interception points). Nevertheless, caution needs to be applied to the use of Strava data as they show participation by only Strava members. There will be an inherent bias to the more competitive and tech-savvy, and some data accumulate from users staying logged in when they are doing other activities, such as driving. Some records are also offset by tens of metres due to either poor GPS reception or map projection errors. However, most records do appear in their correct locations.

27 Strava therefore has similarities to a tag and release programme. However, unlike tagging 10 longfin eels (for example) with GPS devices and seeing where they head to breed,[3] Strava essentially tags several thousand active people in an area and monitors where and how they recreate. Accordingly, its greatest strength is in showing the relative value of settings for different forms of recreation. In my experience, if an area is publicly accessible, it will appear on the Strava heatmap.

28 Heatmaps indicate the cumulative activity of Strava subscribers in any setting. The brighter the colour, the more activity there. **Figure 7** indicates that the Conical Hill walk is likely to be the most popular recreational pedestrian setting in Hanmer Springs. In addition, there is a reasonable level of use of the Majuba Walk which leads north-east from the Conical Hill track at its mid-point, and some use of the link to Lucas Lane which leads west.

29 **Figure 8** shows that there is little cycling activity on the Conical Hill track. As cycling is not allowed on this track, this is most likely from illegal activity, cyclists leaving their GPS record live while they walk the track, or miscoding of activity type. Lucas Lane appears to be a

[2] Herrero, J. 2016. *Using big data to understand trail use: three Strava tools*. TRAFx Research See also https://medium.com/strava-metro/cdc-finds-strava-metro-data-correlates-strongly-with-census-active-commuting-data-8ab1be0fe130

[3] As NIWA did in 2019 and earlier in the century see https://www.rnz.co.nz/national/programmes/ourchangingworld/audio/2018695044/mystery-of-the-longfin-eel-s-breeding-ground

far less popular access route to the mountain biking options north of Conical Hill compared with Chatterton Road.

CONICAL HILL RESERVE MANAGEMENT PLANNING

30 There are a number of planning documents relevant to the management of Conical Hill. In this section I outline the HDC management expectations for Conical Hill.

31 The Hurunui District Council Reserves Management Plan (2012) sets out the goal, aims and objectives of managing reserves in the Hurunui District. The primary goal is "To manage the reserves of the Hurunui District in a manner that meets the needs and expectations of the community, providing for recreational needs and ensuring the preservation of natural and physical resources."

32 Aim 2 provides for, "The development and maintenance of reserve land and facilities to the appropriate standard which reflects their value, character, and use and to enable maximum public use, enjoyment, and safety consistent with preservation of natural values."

33 Objectives provide a framework for achieving the aims and include, "Developed and maintained recreation reserves for public enjoyment, protection of the environment, and retention of principal tourism features."

34 Policy 3 refers to leases and licences, with policy 3.7 stating that, "Council may enter into lease agreements on reserve land to sports organisations, recreational organisations and community groups when suitable and if appropriate classified reserve land is available." Policy 3.8 notes, "In application (sic) for a lease agreement, applicants must demonstrate a clear requirement for consistent use of facilities."

35 Policy 5 refers to commercial activities and notes, "Some recreational experiences can only be provided by commercial entrepreneurs e.g. golf driving ranges, and provided the activity is carefully controlled the use of reserves in this way is not contrary to the Reserves Act. Licensees can also enhance recreational experiences by providing food, drink, equipment etc. and will be permitted in limited areas under carefully controlled conditions." Relevant provisions include:

> *5.1 Commercial activity will not be permitted on reserve land unless specifically allowed for in an individual reserve policy or otherwise licensed by Council.*

5.2 Where permitted, the activity must be of a recreational nature, or enhance the recreational use of the reserve and be considered to benefit the community.

5.3 If a commercial lease is terminated, or expires with no provision for renewal, the lease shall be tendered on the open market. However, if it expires with both the lessor and lessee wishing to continue with the lease, a new lease may be entered into without tendering.

5.4 Individual licenses may be granted on application. Licensees can enhance recreational experiences by providing food, drink, equipment etc. and are permitted in limited areas under carefully controlled conditions to ensure that no activity is contrary to the Reserves Act.

5.5 Commercial activities will incur a charge as outlined in the Council's annual Schedule of Fees and Charges.

5.6 Renewable licenses will be granted for an annual period expiring 30 June each year. The license fee will be reviewed each year.

5.7 Individual licenses will be monitored to assess the impacts of the activity and these impacts will be taken into consideration in the renewal process.

36 Policy 16 refers to structures on reserves. Policy 16.1 states that, "The design of reserve structures shall take into account the natural or physical character of the environment and be in keeping with its use. All structure design shall work with each site rather than against it." Policy 16.2 provides, "Designers should be aware of the interplay between their designs and the environment. Effort should be made to put some of the context into their design, whether it is geological landforms reflected in the roofline or the colours relating to the landscape."

37 Specific reference to Conical Hill Reserve is made under the Hanmer Springs Ward Reserves section of the Management Plan. This describes the main features of the Reserve:

Conical Hill Reserve is one of the best known features in Hanmer Springs. The walking track to the summit has been popular for almost a century. The main point of access to the reserve is on foot from the top end of

> *Conical Hill Road. The reserve is surrounded on three sides by commercial plantations of radiata pine, Douglas-fir and larch….*
>
> *At the summit of Conical Hill walkers are rewarded with spectacular 360 degree vistas; southward over the entire Hanmer Basin, westward to the Waiau River, and northward toward Jacks Pass and the Hanmer Range.*

38 Policies for Conical Hill Reserve focus on maintaining a high standard of service for visitors. This includes the management of weeds and pests, the maintenance of views from the summit and managing the exotic forest to a high standard while encouraging the regeneration of native species. It excludes "mountain bikes and other wheeled vehicles" from the Reserve. In terms of "future development potential" on the Reserve, the Plan states:

> *Conical Hill Reserve is a Hanmer Springs 'icon' along with the thermal pools. The summit walk has always been a significant aspect of the Hanmer Springs experience, particularly as a family outing or as a prelude to soaking in the thermal pools. Being a reserve that has been visited for almost a century, the reserve is testimony to the beginning of forestry in New Zealand. All of these factors must be taken into account when considering the standards of maintenance and any development proposals.*

39 Aside from the provision for some commercial recreational activities in the general policy 5, there is no specific direction given for commercial service provision in the Management Plan for Conical Hill.

40 The Council prepared the *Conical Hill Forest Management Programme 2012-2022* in 2012. The goal of the Management Programme is, "To add to the Hanmer Springs wellness and educational experience by having a highly maintained, near natural and pest free environment on Conical Hill." The Programme records that, "Features identified as being important to the local community" are:

- *Want to tidy up the reserve, turn it from an "eyesore" to an "icon",*
- *Remove wilding conifers and other weed species,*
- *Upgrade the tracks,*
- *Encourage native regeneration of tree species already making a presence on the reserve,*

- *Have well maintained infrastructure on the reserve (tracks, signs, look out, etc.),*
- *Reduce the risk of damage to neighbouring property by large trees on the southern boundaries of the reserve,*
- *Have information boards on the track and at the summit.*

41 The *Conical Hill Reserve Landscape Concept Plan* was prepared for the Council in 2018. The Concept Plan set out to implement requirements of the Reserves Management Plan and includes improvements for the summit, and entrance and access tracks. It also seeks additional vegetation management to maintain views and encourage native regeneration. There is no reference to any further development of recreation opportunities on the Conical Hill Reserve beyond the use of walking tracks.

RESERVES ACT CONSIDERATIONS

42 In this section of my evidence I consider the assessment parameters set by the Reserves Act 1977 and Hurunui District Council Reserves Management Plan 2012 (prepared according to the Reserves Act).

43 Conical Hill is a recreation reserve (in four titles) under the Reserves Act 1977, administered by the Hurunui District Council. Section 17(1) provides that recreation reserves are set aside "for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor recreational activities, including recreational tracks in the countryside."

44 The Flyride proposal will be based entirely within one of the reserve parcels (RES 3661) and will not cross any title boundaries.

45 With regard to recreation reserves (such as Conical Hill Reserve), the Act requires that "having regard to the general purposes specified" above, the public shall have freedom of access to the reserve (although some restrictions can be implemented to protect the reserve and its users). It also requires that natural features will be protected to the extent possible considering its use for recreation, and that "those qualities of the reserve which contribute to the pleasantness, harmony, and cohesion of the natural environment and to the better use and enjoyment of the reserve shall be conserved". Further, the reserve's value as a soil, water,

and forest conservation area shall be maintained "to the extent compatible" with its primary use.

46 Leases for recreation reserves can be allowed in accordance with section 54 of the Act, "to the extent necessary to give effect to the principles" defined for the reserve (as described above). Section 54(1)(d) allows an administering body to "grant leases or licences for the carrying on of any trade, business, or occupation on any specified site within the reserve, subject to the provisions set out in Schedule 1 relating to leases or licences of recreation reserves issued pursuant to this paragraph: provided that the trade, business, or occupation must be necessary to enable the public to obtain the benefit and enjoyment of the reserve or for the convenience of persons using the reserve."

47 Schedule 1 of the Act defines the basic terms which would form the basis of a lease agreement. In the case of the Flyride site, the lease would most likely be held by the "Hurunui District Council (trading as Hanmer Springs Thermal Pools & Spa)".

48 In my opinion, my assessment must therefore consider:

48.1 the degree to which the proposal is compatible with the primary purpose of a recreation reserve; and

48.2 whether the proposal is "necessary to enable the public to obtain the benefit and enjoyment of the reserve or for the convenience of persons using the reserve."

49 The latter is, at face value, a high bar, considering that what is 'necessary' for enjoying a recreation reserve could vary enormously. It could be interpreted to only encompass a walking track – only the barest necessary item to access a reserve. This would preclude issuing any lease for a 'trade, business, or occupation'. However, there is plenty of precedent to indicate that a wide range of commercial and community recreation leases can be agreed for recreation reserves – such as the Hanmer Springs Thermal Pools & Spa and the campgrounds, accommodation, retail and tourism services on the Kaiteriteri Recreation Reserve in Tasman, and multiple golf courses nationally.

50 I consider the appropriate interpretation for the present circumstances raises two questions. The first is whether the proposal could possibly enable the public to obtain, within a local context, a benefit and enjoyment of the reserve that is supported by the community without unduly limiting the ability of other users to enjoy their existing activities (assuming that the community wishes for these activities to continue). The second is whether the proposal

is compatible with the primary purpose of a recreation reserve and the relevant reserve management plan. Considering the ability to lease part of a recreation reserve for, for example, mini golf (in the case of Kaiteriteri), it is taken as read that a commercial service like the Flyride is, *a priori*, compatible with the reserve's gazetted primary purpose.

51 The Conical Hill section of the HDC Reserves Management Plan (2012) states:

> *Conical Hill Reserve is a Hanmer Springs 'icon' along with the thermal pools. The summit walk has always been a significant aspect of the Hanmer Springs experience, particularly as a family outing or as a prelude to soaking in the thermal pools. Being a reserve that has been visited for almost a century, the reserve is testimony to the beginning of forestry in New Zealand. All of these factors must be taken into account when considering the standards of maintenance and any development proposals.*

52 Development proposals on Conical Hill are therefore contemplated by the Reserves Management Plan.

53 General policy in the Management Plan states:

> *5.1 Commercial activity will not be permitted on reserve land unless specifically allowed for in an individual reserve policy or otherwise licensed by Council.*

54 There is no policy specific to the Flyride proposal as the Management Plan predated the concept. The proposal will, however, be 'otherwise licenced by Council' and is a Council proposal. The reserve-specific section of the Management Plan for Conical Hill requires consideration of a range of 'factors' when setting the standard for any development proposal. In my experience, proposals for new uses of a reserve are often not foreseen at the time their management plan was prepared, and must be considered on their merits and the general purpose of reserve provision, or obviously declined where the plan excludes such use.

55 I maintain that there appears to be no impediment to the proposal based on an assessment of whether the proposal is compatible with the primary purpose of a recreation reserve.

56 I now turn to consider whether the proposal is "necessary to enable the public to obtain the benefit and enjoyment of the reserve or for the convenience of persons using the reserve" according to the Reserves Act.

57 As I have discussed earlier, a wide range of commercial recreation services have been considered 'necessary' on recreation reserves nationally. In the case of the Flyride proposal, the service extends the range of commercial recreation product in Hurunui and supports the objectives of the 2017-2022 Hurunui District Tourism Strategy (Hurunui Tourism Board 2017).

58 Policy 5.2 of the HDC Reserves Management Plan states, "Where permitted, the activity must be of a recreational nature, or enhance the recreational use of the reserve and be considered to benefit the community."

59 The Flyride activity is clearly of a recreational nature. The proposal expands the recreation opportunities on Conical Hill. Considering the low scale of effect on existing activities, it can be considered to enhance the recreation use of the reserve by increasing activity diversity.

60 Considering the requirement for patrons to walk (on the northern and southern sides of Conical Hill) or cycle (on the northern side only), the proposal will increase the general level of physical activity uptake in Hanmer Springs. This is a benefit to the Hurunui community, beyond sustaining the tourism product diversity in Hanmer Springs and the return of financial surpluses to the HDC for expenditure on regional recreation and community services. The latter financial considerations would not form part of an assessment under the Reserves Act, but are relevant to HDC Reserves Management Plan considerations.

Summary

61 In my opinion, the Flyride proposal is not contrary to the Reserves Act and the HDC Reserves Management Plan, when assessed in light of its effects on the existing uses and values of Conical Hill and the primary purpose of a recreation reserve.

EFFECTS ASSESSMENT FOR SOCIAL VALUES

62 In this section of my evidence I consider the potential effects of the Flyride proposal on current users of the Conical Hill Reserve. This is based on the assessment matters identified in **Attachment 1** and summarised in paragraph 17.

Mode shift

Will the proposed activity on Conical Hill represent a significant change in existing activity modes? That is, will walkers on the Reserve encounter users having a substantially different experience and using a different mode to access it?

63 Since users of the Flyride will depend on foot-power to access the experience from the south face of Conical Hill, existing users will only encounter other walkers on the access track to Conical Hill. Similarly, there is no proposed alternative access option for walkers and cyclists accessing the Hill from the north. Therefore, in my opinion, there will be no mode shift on the access tracks.

Dominance of Flyride

Will the commercial component of the activity be sufficiently evident to change the experience of existing users?

64 Existing users will encounter the facilities associated with the Flyride at the summit of Conical Hill (the start station) and north of the Lucas Lane access track (the stop station).

65 Temporary plastic pipes had been mounted on site to indicate the proposed location of the permanent Flyride poles during my site visit. These indicated limited opportunities to view the Flyride structure from the access tracks, considering that they are largely surrounded by mature exotic trees.

66 **Figure 9** shows the proposed location of the first pole (T1) below the summit viewing platform. The pole will be difficult to see from the platform. Its rail link with the start station, and the station and toilet, will be seen when viewing north. There will be no interruptions to the vistas to the south.

67 The view north from adjacent to the viewing platform (at the orientation table) of T1 is shown in **Figure 10**. The proposed location of the start station and toilets is also shown in **Figure 10**. Visitors to the viewing platform will clearly be aware of the new development and users of the existing picnic table at the proposed start station location are likely to be displaced (depending on the final form of facility development).

68 Mr Tony Milne in his landscape evidence finds that the new Flyride activity will not dominate the summit, being a complementary activity to the walking track and lookout, and that it will likely result in a livelier summit experience than at present. Mr Milne states that

the proposal will have moderate adverse effects on the tranquillity of the hilltop lookout area.[4]

69 In my opinion, the Flyride will not dominate the experience of the Conical Hill track. Nor will it dominate he main feature of the walk, which is the views to the south over the Hanmer Plain and to the Organ and Amuri Ranges. It will become a significant feature of the summit looking north. This view is towards Mount Isobel and the pine plantations on its flanks. The proposed facilities could be partly screened by vegetation if desired.

70 In summary, my opinion is that the proposal will not dominate the Conical Hill experience, but will be an obvious feature of it.

71 The noise generated by users of the Flyride (screams and shouts) is described in the evidence of Dr Jeremy Trevathan with a focus on District Plan noise level compliance at neighbouring residential properties. Dr Trevathan also provides a description of expected noise levels within the reserve. **Figure 11** is taken from Acoustic Engineering Services Ltd's original assessment accompanying the consent application. It shows the 1-hour averaged sound pressure noise level contours for screams emanating from riders, and includes a 5dB 'penalty' (an increase) considering the special nature of the noise (unlike a truck passing for example). This indicates the degree of noise shelter on most of the Conical Hill track provided by the land contour. Intermittent noise from users will be evident at one corner of the track and at the summit. This is unlikely to 'dominate' the walking experience, but will be a feature of the time spent on the summit (when the Flyride is operating and when someone lets out a whoop).

72 Dr Trevathan has recommended slowing the ride near the stop station to reduce the likelihood of noise affecting neighbouring residences.

Crowding

Will the new activity increase the patronage of Conical Hill to the point where crowding becomes an issue or overwhelms the capacity of facilities on the Reserve, leading to more conflict between visitors?

73 As I noted earlier, the track counter at the base of the Conical Hill track reported just over 52,000 walkers in the 2019/20 season. The target patronage of the Flyride is 50,000, which is approximately 10 per cent of the current patronage of the Hanmer Springs Thermal Pools & Spa. The capacity of the Flyride will be between 50 and 60

[4] At Mr Milne's paragraph 38.

passengers per hour, which will only be reached during peak visitor periods (summer weekends and school holidays). Some of the patronage will come from existing users of the track and so, at peak times, total use of the reserve should not double. Some users of the Flyride will do more than one ride, and part of the track (between the start and stop stations) may have more use than sections of track below the stop station.

74 Track width on Conical Hill is quite generous (2 to 3.5 metres for much of its length – see **Figure 1**) and there is significant capacity for additional use, considering on-site observation of users of the Hill over a busy weekend in January 2021. Near the summit, several short sections of the track narrow to 1 to 1.5 metres. Widening may be required over some tens of metres to reduce the potential for user conflict. Otherwise, there appears to be substantial capacity for the paths to cater for increased use. This will, in turn, increase encounter rates between visitors. However, considering the proximity of Conical Hill to central Hanmer Springs, low encounter rates are, in my opinion, unlikely to be an expectation for most visitors. Existing repeat visitors – such as local residents – will be more accustomed to current use patterns, and the proposal is likely to result in a step-change in their experience of encounter rates, particularly during holiday periods, which may be considered adverse by them.

Specialisation
Is the current visitor experience on Conical Hill dependent on a specialised resource that will be compromised by a commercial development?

75 Walking is a very generalised activity and is accessible to most people and occurs in most recreation settings. There is no specialised user group to displace and ample alternative walking (or running) destinations in and around Hanmer Springs (see **Figure 7**). The only specialised feature of Conical Hill is the view from the summit south across the Hanmer Plain (which is unaffected), and the view north over plantation forest and towards Mount Isobel (which is attainable from many other locations). In my opinion, it is unlikely that conflict in this setting can be attributed to effects on specialist recreation opportunities.

Commercialism
Will commercial recreation on Conical Hill be considered generally incompatible in the context of Hanmer Springs as a visitor destination?

76 The 2017-2022 Hurunui District Tourism Strategy (Hurunui Tourism Board 2017) identifies Hanmer Springs village and the Thermal

Pools & Spa as the primary drivers of tourism in the Hurunui District, followed by the Waipara Valley wine experience. Table 1 enumerates the number of tourism operators by location within the District. Hanmer Springs accounted for almost a third of all tourism businesses in the District in 2017.

Table 1: Tourism businesses in the Hurunui District 2017 (Hurunui Tourism Board 2017)

	Hanmer Springs	Culverden / Hurunui	Hawarden / Waikari	Waipara	Amberley / Leithfield	Greta Valley	Cheviot Area	Rotherham, Waiau, Mt Lyford
Accommodation	49	6	5	11	13	3	9	5
Attractions	25	3	6	7	7	8	5	3
Shopping	21	4	2	1	17	0	4	4
Tours & Transport	6	0	0	1	0	0	0	0
Services & Trades	29	6	3	4	31	3	18	5
Wine & Dine	27	7	4	4	17	2	6	4
Artists	0	2	1	1	0	0	0	0
Wineries	1	1	2	24	0	0	2	0
TOTAL PER AREA	158	29	23	53	85	16	44	21

** Please note these figures do not include holiday homes in either Mt Lyford or Hanmer Springs

77 The Tourism Strategy identifies that the Hurunui Tourism Board has two goals:

- *To developing Hurunui as a tourism destination by improving and supporting existing product and working to attract new products and investment and growing the number of events in the district; and*
- *Collaborating with key stakeholders in and outside the district.*

78 A key performance measure of the Strategy is 20 new visitor experiences in the Hurunui.

79 The region is largely dependent on the domestic tourism market. Prior to COVID-19, visitors to the Hanmer Springs Thermal Pools & Spa ranged between 80 and 85% domestic, with a heavy dependence on Canterbury. Maintaining a sufficient supply of activity options to maintain a repeat visitor base for Hanmer Springs is a key motivation for the Flyride proposal.[5]

[5] See Evidence of Graeme Abbott on behalf of Hanmer Springs Thermal Pools & Spa, dated 23 September 2021 at paragraph 51.

80 Conical Hill is a local reserve for Hanmer Springs village. There is no apparent reason to assume that the setting is removed or remote from the village. Services for tourism are part and parcel of the Hanmer Springs experience, and the presence of commercial recreation services will not be unexpected in this setting.

81 I understand that the Hanmer Springs Thermal Pools & Spa, as a business unit, is administered via the Hanmer Springs Thermal Pools & Spa Management Committee, a committee of the Hurunui District Council. The Hanmer Springs Community Board also contributes by communicating the interests and concerns of residents. Staff of the Hanmer Springs Thermal Pools & Spa have conducted two community meetings prior to lodging the consent application to review the Flyride proposal and adjusted the concept from running down the south face of Conical Hill to its western side. I have assumed for this assessment that the community input to the proposal has confirmed a certain level of community support for the proposal. I observe that the submission by Positive Progress Hanmer Springs is supported by 90 individuals and businesses wishing to express their full support for the Flyride proposal.

82 As discussed in paragraph 35, the Hurunui District Council Reserves Management Plan (2012) requires that commercial activities not be permitted on reserve land unless specifically allowed for in an individual reserve policy or otherwise licensed by Council. I discuss this further in my evidence below in relation to the Reserves Act 1977.

Summary

83 As recorded in my Recreation Effects Assessment, my opinion is that of the five assessment matters, only one raises the potential for concern – that is whether the Flyride will 'dominate' the recreation experience on Conical Hill. The track to the summit from both the north and the south are well-separated from the Flyride by the contours of the hill and by mature vegetation, and the walking experience will largely remain as it is, albeit with greater use. The start station will be obvious from summit, but will not dominate the key experience, which is the view to the south from the viewing structure. Vegetation may be used to screen the start station, but sounds of activity will likely be heard. Considering that the main visitor experiences on the Conical Hill walk are the track and the view to the south from the summit, the Flyride is unlikely to 'dominate'. Increased patronage may, however, affect experienced users who are expecting the status quo as a level of activity on Conical Hill, by increasing encounter rates with other users, particularly during holidays.

SUBMISSIONS

84 I have reviewed submissions to the application and have identified the following five concerns relating to the recreational experience within the Conical Hill reserve. My responses are provided to each.

Changes to or loss of heritage values, ambience, tranquillity and/or views[6]

85 As I discussed in relation to the social effects of the proposal, current repeat users of Conical hill will experience increased encounter rates with other users with the Flyride in place, particularly during holiday periods. This could be considered adverse, and may result in some displacement whereby traditional visitors choose other locations or to visit at other times. However, by ensuring new visitors use the same mode of access (meaning there is no mode shift) and by minimising interactions with Flyride facilities at the summit, adverse effects on tranquillity and views can be minimised.

86 Notwithstanding that, increased patronage will remain an adverse effect for some, and this is likely to require some track development to increase width and to reduce the taking of shortcuts. Some of these developments are required now and form part of the *Conical Hill Reserve Landscape Concept Plan.*

Increased foot traffic and effects on walkers[7]

87 As for my response above, increased patronage will be an adverse effect for some traditional users, and they are likely to experience a step-change in activity levels for walking on Conical Hill at busy periods. Some track development will likely be required to reduce conflict (track widening at several points).

Proposal not in accordance with the Reserves Management Plan for commercial activities[8]

88 I discuss this issue in my evidence in relation to the Reserves Act. The Hurunui District Council Reserves Management Plan

[6] 14 submissions: Sheridan & Simon Langford; Stephen Carter; Ann Brower; William Smith; Ashleigh Taylor; Celia Mary Rodley; Joanne Adams; Mary Clay & Damian Blogg; Pauline Sargisson; Sandra Samson; David Rodley; Clayton Curt Sargisson; Ilija Tapsell; and Janet Robertson.

[7] 10 submissions: Sheridan & Simon Langford; Ann Brower; Serge A Bonnafoux; Gavin Martin; Claire & Nigel Shatford; John & Shirley Mercer Anne Carter; Mark Colin Renwick; Friends of Conical Hill and Claudia Gorham.

[8] 12 submissions: Sheridan & Simon Langford; William Smith; Serge A Bonnafoux; Gavin Martin; Claire & Nigel Shatford; Peter & Michelle Corbishley; Mark Colin

contemplates the likelihood development proposals for Conical Hill. It does not exclude them, rather it requires a licence from Council.

Effects on horse riding on Lucas Lane[9]

89 Hanmer Springs Horse Riders Inc has concerns that the sight and sound of the Flyride has the potential to startle horses on the track leading north from Lucas Lane to the north of Conical Hill. I am not a specialist on horse riding, but have prepared evidence in the past on the effects of wind farms on recreation including horse riding. **Attachment 3** includes an excerpt from an appendix to my assessment of effects for the proposed Hayes wind farm.[10] This was prepared by a vet – Kevin Joseph Stafford – with the skills as per his introduction.

90 I take it from Mr Stafford's review that horses are unlikely to be affected by visual stimuli which occur above their line of sight, which is at their eye level. The Flyride will be above the Lucas Lane route. I also note that Lucas Lane is a cycling and running route as shown in my Strava data in **Figures 7** and **8 -** although it has relatively low use cycling activity until the track joins those to the north of Conical Hill where they become quite busy. I would expect horses using this area to be accustomed to the noise and sudden appearance of mountain bikers and runners.

Access via Acheron Heights and Conical Hill Road[11]

91 Mr Martin and the Shatfords state in their submissions that, "The Flyride application proposes to utilise this existing access at 34 Acheron Heights as a walking/biking track to the Reserve."

92 Mr Martin refers to a "Flyride Application Plan" which shows all walking and biking access routes to Conical Hill in the same colour. This should not be interpreted to mean that the application proposes changing any of the existing access restrictions to Conical Hill. Mountain biking will remain excluded from the Acheron Heights and Conical Hill Road accesses.

93 I also note in Mr Martin's submission that he has had previous communication with the Hurunui District Council about the impacts of public use of public land adjacent to his property, and that

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Renwick; Friends of Conical Hill; Stephen James Pawson; Claudia Gorham; Mary Clay & Damian Blogg; and Scott Currie & Angela Renwick.

[9] 1 submission: Hanmer Springs Horse Riders Inc

[10] Greenaway, R. 2006. *Meridian Energy Project Hayes Proposed Wind Farm Recreation and Tourism Assessment of Effects*. Client report for Meridian Energy Ltd

[11] 2 submissions: Gavin Martin and Claire and Nigel Shatford

Council has offered advice that the accessway will continue to be used by the public. In my experience, reverse sensitivity issues often arise near recreation reserves as public use increases or changes, while remaining in accord with the principles of the Reserves Act and/or reserve management plans. It is important that the use of public reserve land is able to evolve over time to suit new demands and population growth. In my opinion, while neighbours' concerns must be weighed, the primary purposes of recreation reserve provision (encouraging recreational use) should always be the key driver of development and management.

Summary

94 I have addressed the issues raised by submitters in the body of my evidence, but further recognise that the change in patronage levels on the Conical Hill walkway may impact on existing regular users who are accustomed to the status quo.

SECTION 42A RESPONSE

95 The Section 42A Officer's Report agrees with the findings of my assessment, including in reference to horse riding.

CONCLUSIONS

96 I have assessed the effects of the proposed Flyride on existing recreational users of Conical Hill in Hanmer Springs village, and reviewed its compatibility with the provisions of the Reserves Act 1977 and the HDC Reserves Management Plan (2012).

97 Conical Hill is an iconic recreation destination in Hanmer Springs and provides the most popular local walk on its southern face. Panoramic views south across the Hanmer Plains are the main reward, and the summit also provides a vista to the north towards Mount Isobel across a foreground of production forestry. While the access track is well-maintained and of generous width, facilities at the summit and reserve entrance are in poor condition and are the subject of a redevelopment plan.

98 In my opinion, the Flyride development has limited potential to affect existing users of the track to the summit of Conical Hill as a result of its location on its western slope. The start station to be located at the summit will be an obvious feature north of the lookout and, while not affecting the primary view south of the Hanmer Plain, will form part of the foreground when looking north. However, the view to Mount Isobel is transected by production forestry and the station will be within a developed visitor setting.

99 While not directly contemplated by the HDC Reserves Management Plan, I maintain that the development is able to be contemplated within it. The Reserves Act does not provide any direct impediment to the proposal. Broadly, it can be considered an appropriate development for a recreation reserve. The site-specific issue is whether the proposal sustains and enhances recreation values on Conical Hill. My assessment finds that – considering the obvious role of Hanmer Springs as a developed tourism destination, and the ability to sustain existing recreation values on the Conical Hill track – the proposal is acceptable from a recreation and tourism development perspective.

Dated: 23 September 2021

_____

Rob Greenaway

ATTACHMENT 1: ASSESSING SOCIAL EFFECTS IN THE CONICAL HILL SETTING

100 In this attachment I frame the assessment matters that I have relied on to identify the type and scale of effect of the proposal on recreation and tourism values.

101 Wray & Booth (2010)[12] give a useful summary of the concepts that can be applied in assessing the effects of a new commercial recreation activity in an area with an existing use pattern. These relate to managing recreation conflict. They write:

> *Recreational conflict can be defined as 'a negative experience, occurring when competition for shared resources prevents expected benefits of participation from accruing to an individual or a group' (Crawford et al. 1991:309). It is a specific type of user dissatisfaction which occurs when people feel that their recreational experience is compromised by other visitors. The most commonly applied model, and the most substantial theoretical basis for understanding recreational conflict, is the theory of goal interference provided by Jacob & Schreyer (1980). The theory defines conflict as 'goal interference attributed to another's behaviour'. According to the theory, conflict is a negative experience which occurs when participants with incompatible goals come into contact. The theory suggests that conflict in outdoor recreation can be caused by four major factors:*
>
> *1. Activity style*
>
> *2. Resource specificity*
>
> *3. Mode of experience*
>
> *4. Lifestyle tolerance*
>
> *Research has shown that conflict is increasing between participants in outdoor recreation activities, and that conflict is likely to occur in areas where there are high levels of use and/or a variety of different activities competing for the same resource (Manning 1999). There is also research to suggest that conflicts have developed between commercial and non-commercial recreationists (ibid.). This notion is supported by the Department of Conservation's Visitor Strategy, which states that:*
>
> > *Conflict is most likely to occur between dissimilar groups, particularly if one group's behaviour is considered to be*

[12] Wray, K. and Booth, K. 2010. *Attitudes towards commercial recreation on public conservation lands.* Department of Conservation Science for Conservation 301

inappropriate by the other ... Some visitor groups resent the intrusion of increasing numbers of visitors and an expanding range of commercial activities. (DOC 1996: 21)

102 Jacob & Schreyer's (1980) four factors influencing goal interference are, in more detail:[13]

102.1 Activity style: The level of importance a person places on the specialisation required to enjoy their particular activity. This applies to more skilled activities like angling and backcountry skiing.

102.2 Resource specificity: The degree to which people are dependent on a particular resource or place for their activity, and the availability of substitute settings.

102.3 Mode of experience: This relates to the focus of the participant. Conflict might arise between some mountain bikers who are more focused on traversing ground rapidly and some trampers who are focusing on the wider environment.

102.4 Lifestyle tolerance: This relates to perceptions of personal differences between individuals and may be based on stereotyping. For example, an independent angler might consider a guided angler to have different and more entitled attitudes.

103 Wray & Booth (2010) detailed further reasons why independent wilderness visitors objected to commercial recreation in remote and wilderness areas. While the setting for their analysis is clearly different to the front-country setting of Conical Hill, many of the nine themes appear transferrable:

103.1 The fear that traditional recreation experiences will be damaged, threatened or changed – largely because commercial recreation is 'different' and requires higher levels of service than traditional independent activities.

103.2 Fear that commercial recreation will 'open the floodgates' to commercialisation.

103.3 Dislike of impacts associated with commercial recreation (more people, more facilities, more infrastructure, more noise, etc).

[13] From Watson, A.E. 2001. *Goal Interference and Social Value Differences: Understanding Wilderness Conflicts and Implications for Managing Social Density*. USDA Forest Service Proceedings RMRS-P-20. 2001

103.4 Commercial clients are 'different' from independent visitors (as per Jacob & Schreyer's (1980) 'lifestyle tolerance').

103.5 Commercial recreation is a reminder of the civilisation that independent wilderness visitors want to escape.

103.6 Philosophical objections to commercial recreation on conservation lands (private gain from public land).

103.7 Commercial recreation is antithetical to traditional outdoor recreation (by removing the basic elements associated with wilderness experiences – risk, independence and no profit motive).

103.8 Commercial recreation is elitist and only for the rich (as per Jacob & Schreyer's (1980) 'lifestyle tolerance').

103.9 Inappropriate behaviour of commercial groups (such as taking over public huts, being noisy, not cleaning up after themselves in huts).

104 Cessford (1999)[14] summarises two forms of potential recreation conflict relevant to this assessment: 'intra-group conflicts' (conflicts between user groups with different motivations or behaviours) and 'inappropriate uses and behaviours' (such as the use of new technology, the staging of events or commercial activities – noting that the term 'inappropriate' is relatively subjective).

105 For assessing intra-group conflicts, Cessford (1999) recommends:

> *The main information needs identified for managing the social impacts of intragroup conflicts were based on the need to improve understanding of inappropriate behaviour and crowding. This was based on defining and describing different behavioural and crowding problems, and understanding both the common contributing factors applying in most cases, and the unique factors specific to certain activity types or sites. How do these factors relate to on-site management for specific recreation experience goals? Are these goals made apparent to visitors to influence their expectations prior to their visits, and their behaviours while on their visits?*

106 The types of intra-group conflict issues identified were:

- Types of inappropriate behaviour,

[14] Cessford, G. 1999. *Social Impacts of Visitors to Conservation Lands.* Department of Conservation Science and Research Internal Report 171

- Crowding and conflict perceptions,
- Different values and attachments for settings and activities,
- Traditional versus non-traditional cultural use,
- Different activity orientations,
- Guided versus independent participation,
- The degree of regulation compliance,
- The degree of fee compliance.

107 For assessing inappropriate uses and behaviours, Cessford (1999) recommends:

> *The main information needs identified for managing inappropriate uses and behaviours emphasised improving the understanding of interactions between different visitors, activity styles, place and activity dependence, group values and individual values, and perceptions of place. What makes some particular types of recreation activities, experiences and visitor groups more or less susceptible to impacts than others? What visitor characteristics and behaviours have disproportionately greater impact effects?*

108 Key questions for my assessment therefore include:

108.1 Will the proposed activity on Conical Hill represent a significant change in existing activity modes? That is, will walkers on the Reserve encounter users having a substantially different experience and using a different mode to access Conical Hill?

108.2 Will the commercial component of the activity be sufficiently evident to change the experience of existing users?

108.3 Will the new activity increase the patronage of Conical Hill to the point where crowding becomes an issue or overwhelms the capacity of facilities on the Reserve, leading to more conflict between visitors?

108.4 Is the current visitor experience on Conical Hill dependent on a specialised resource that will be compromised by a commercial development?

108.5 Will commercial recreation on Conical Hill be considered generally incompatible in the context of Hanmer Springs as a visitor destination?

ATTACHMENT 2: FIGURES

Figure 1: Conical Hill path width example

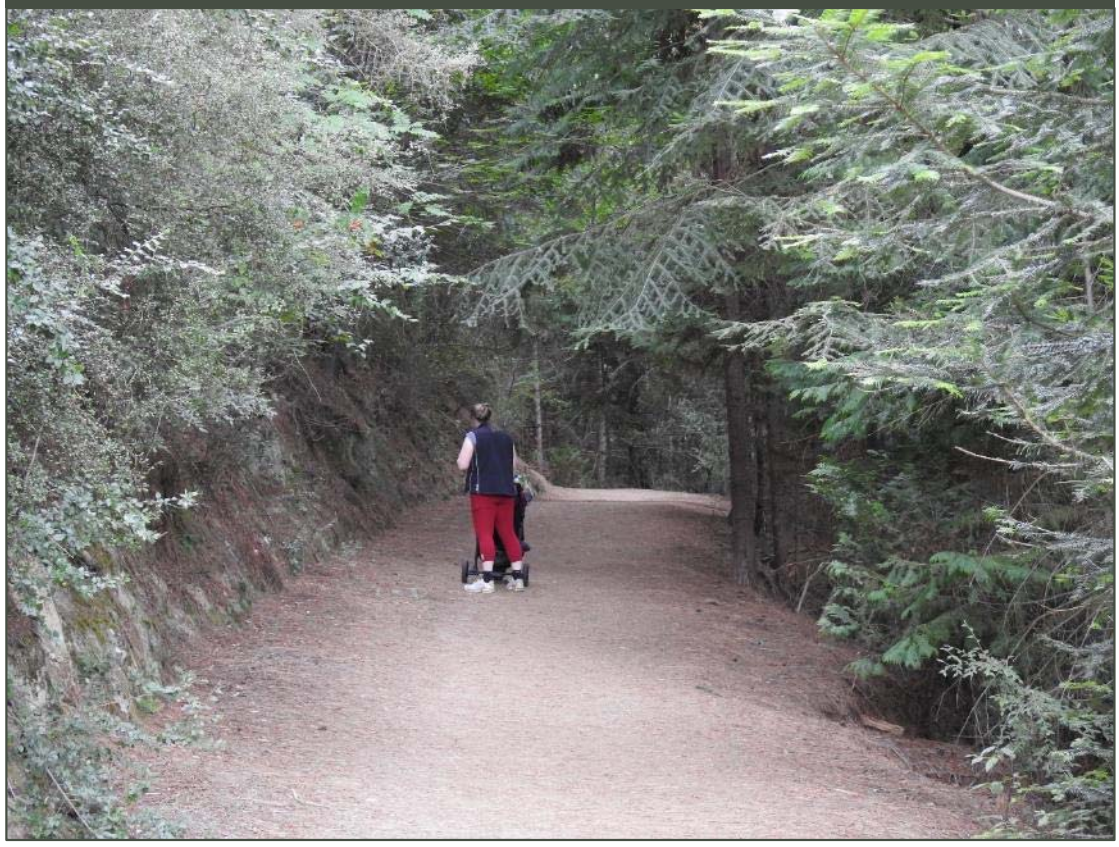


Figure 2: Conical Hill entrance

Figure 3: Conical Hill summit viewing platform

Figure 4: Conical Hill facility condition example

Figure 5: Private housing adjacent to Conical Hill track

Figure 6: Council water tank adjacent Conical Hill track

Figure 7: Hanmer Strava heatmap for running

Figure 8: Hanmer Strava heatmap for cycling

Figure 9: Pole T1 position looking south from proposed start station site

Figure 10: View north from adjacent viewing platform showing pole T1 position

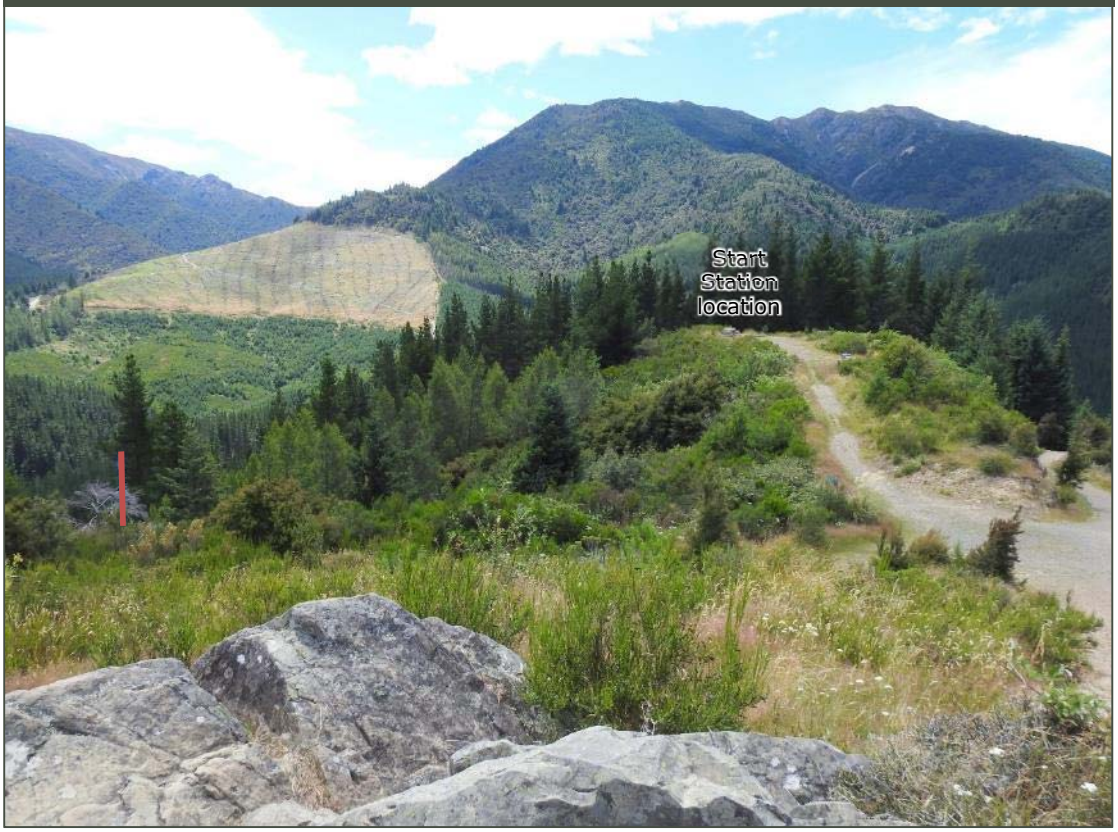
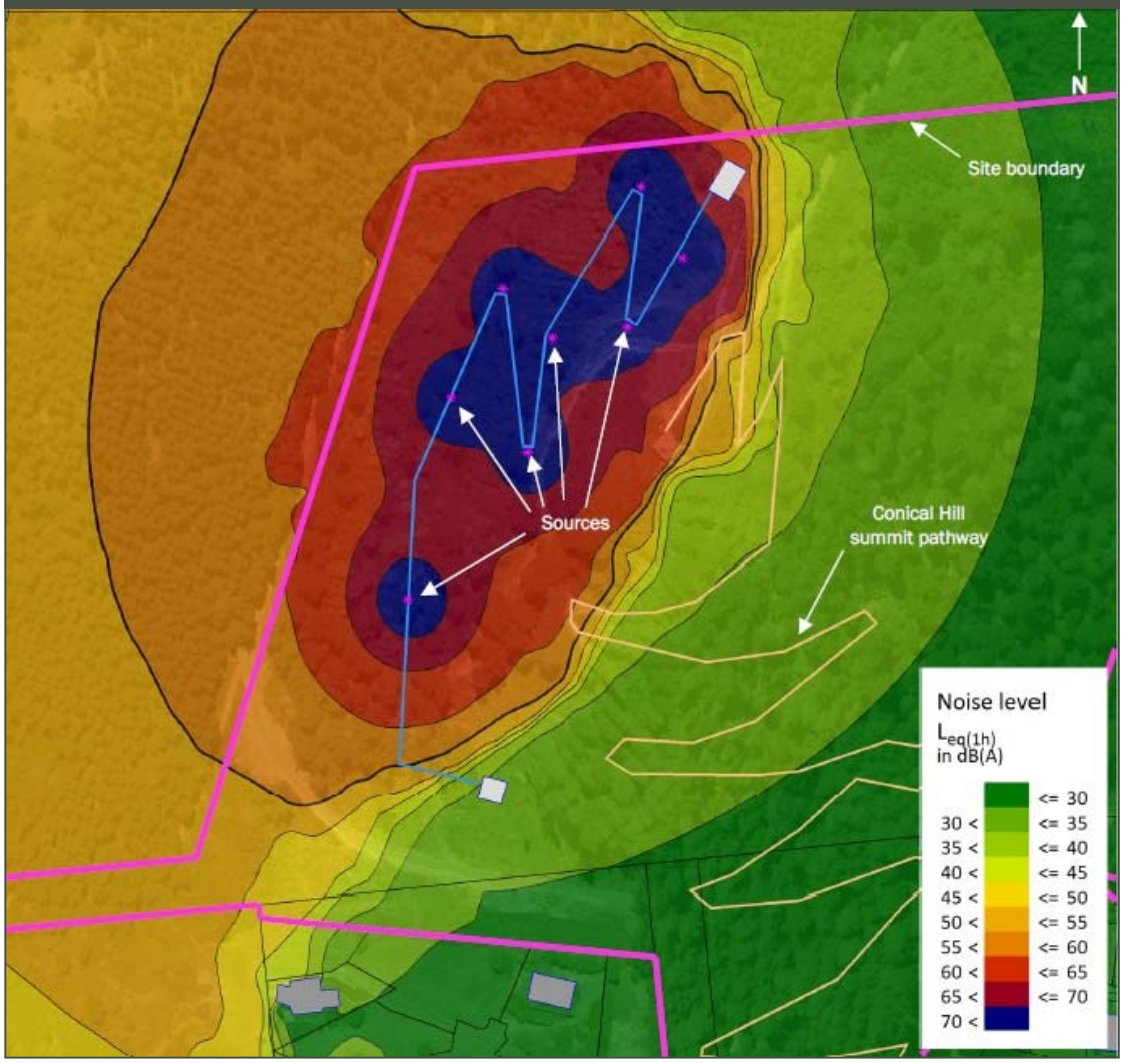


Figure 11: $L_{Aeq(1h)}$ of screams from riders over a 1 hour duration at 1.5m height



ATTACHMENT 3: EVIDENCE OF DR KEVIN STAFFORD IN RELATION TO ANIMAL BEHAVIOUR NEAR WIND FARMS 2006 (EXCERPT)[15]

1.1 "My name is Kevin Joseph Stafford. I am a veterinarian (MVB, MSc, PhD, FRCVS, MACVSc) with a special interest in animal behaviour and welfare. I work in the Institute of Veterinary Animal and Biomedical Sciences at Massey University, Palmerston North, New Zealand as Professor of Veterinary Ethology. I am a Member of the Australian College of Veterinary Scientist in Animal Behaviour and Animal Welfare. I am a fellow of the Royal College of Veterinary Surgeons.

1.2 "I work as a referral veterinarian in the field of animal behaviour. I am registered as veterinary specialist in animal behaviour with the Veterinary Council of New Zealand. I carry out research into animal behaviour and welfare and teach these subjects to veterinary, agriculture and science undergraduates and graduate students from my own experience, I am familiar with wind farms and their effect on animals." …

Horse Physiology

4.7 "Knowing a horse's physiology aids in the understanding of its behavioural responses. For example, horses are able to see colour but have difficulty discriminating green (Pick 1998). They have wide-angle vision, which is useful for a prey species. A horse's horizontal visual field is over 300 degrees (Grandin 1999) and the vertical visual field is 178 degrees. They have a small blind spot behind them and thus are more likely to startle if approached within the blind area. The horizontal visual field is depicted in **Figure 1** (McGreevy, 2004). The visual field in front of a horse, when allowed to carry its head naturally, is slightly downward, as shown in **Figure 2** (McGreevy, 2004). Thus objects above the horse are less likely to be observed…."

4.8 "For the proposed wind farm, colouring the turbines to "blend" with the background (by using white or light grey colourings) to blend with the sky) will reduce the visibility of the turbines to horses. The bottom of the rotor arc for the proposed turbines will be elevated well above the horses visual field in most situations…."

[15] In Greenaway, R. 2006. *Meridian Energy Project Hayes Proposed Wind Farm Recreation and Tourism Assessment of Effects*. Client report for Meridian Energy Ltd

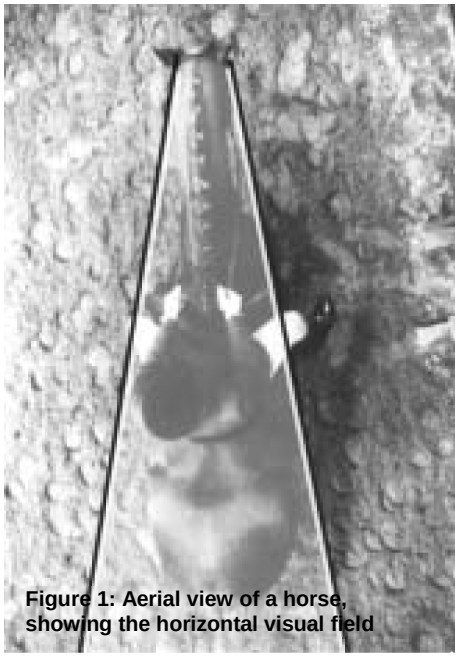


Figure 1: Aerial view of a horse, showing the horizontal visual field

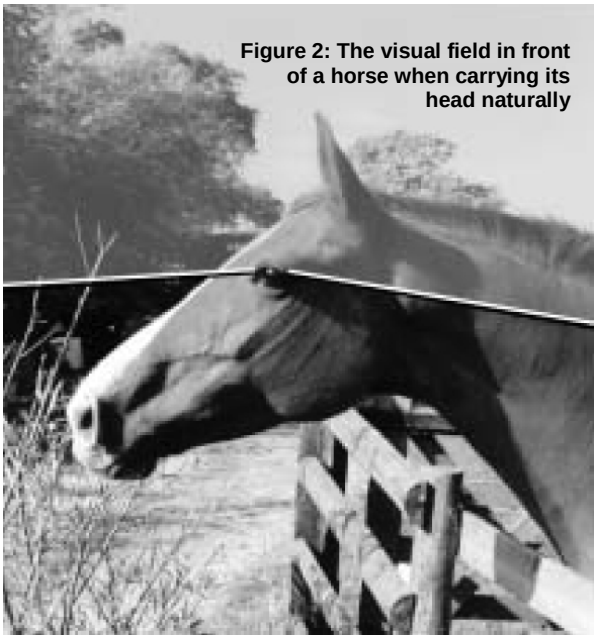


Figure 2: The visual field in front of a horse when carrying its head naturally

4.9 "Horses are more sensitive to high pitched sound than people are (Grandin 1999). A horse's maximal hearing sensitivity is at 1000-16,000 Hz. Wind turbine noise levels decrease at higher frequencies. The noise produced by the wind turbines will therefore typically be lower at the frequencies horses are most sensitive at…."

Horse habituation

4.13 "Many ponies and horses will habituate and desensitise to stimuli if no adverse effects occur from the stimuli. This means that the horse will become used to a stimulus such as a wind turbine over time. Miller (1995) says that horses desensitise to frightening stimuli faster than any other animal. Horses get used to many frightening stimuli over their lives. For example, horses rapidly habituate to crowds, cannons, cars, trucks, airplanes and trains. … Horses near airports often have planes fly straight over them and vehicles can appear suddenly from around bends, where horses are near roads."…

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