Exhibit 15.15

BEFORE THE ENVIRONMENT COURT

Decision No. [2015] NZEnvC 205

IN THE MATTER	of the Resource Management Act 1991
AND	of an appeal under section 120 of the Act
BETWEEN	ZJV (NZ) LIMITED
	(ENV-2011-CHC-130)
	Appellant
AND	QUEENSTOWN LAKES DISTRICT COUNCIL
	Respondent
AND	SKYLINE ENTERPRISES LIMITED
	Applicant

Court:	Environment Judge J R Jackson Environment Commissioner K E Edmonds
	(Dr A J Sutherland as special advisor under section 259 of the Act)
Hearing:	at Queenstown on 26, 27, 28 and 29 January 2015 and 28 April 2015; final submissions for the appellant received 29 May 2015
Appearances:	Mr G M Todd and Ms K L Pfeffer for Skyline Enterprises Limited Mr A Ray for the Queenstown Lakes District Council Dr R J Somerville QC and Ms M C Wright for ZJV (NZ) Limited Mr C G Streat for Arthurs Point Protection Society Incorporated under section 274 of the Act
Date of Decision:	25 November 2015
Date of Issue:	25 November 2015

THE SEAL OF THE ENVIRONMENT COURT OF NEW ZEALAND

DECISION

A: Under section 290 of the Resource Management Act 1991 the Environment Court orders that Queenstown Lakes District Council resource consent RM100777 is confirmed for a term of five (5) years for a maximum of four (4) flights per day and subject to the amended conditions detailed in the Reasons below and otherwise generally as in the conditions included in the Joint Witness Statement of the planners dated 16 January 2015 subject to the changes directed by the Reasons below.

B: Except to the extent stated in Order A, the appeal is refused.

C: The parties are to confer and preferably agree on amended conditions to give effect to this decision; if such agreement cannot be reached by 31 January 2016 the parties are to lodge submissions in turn (with a reply from Skyline) by 29 February 2016 and the court will then resolve the conditions on the papers.

D: Costs are reserved. Any application is to be made within 15 working days and any reply within a further 15 working days.

REASONS

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1. Introduction

1.1 The application, the appeal, the parties and the court

[1] The applicant Skyline Enterprises Limited ("Skyline") seeks resource consents to operate a helicopter landing area ("the helipad") adjacent to the Skyline Gondola Building on Bob's Peak within the Ben Lomond Recreation Reserve above and west of central Queenstown. The helipad is 30 metres from the Skyline Restaurant.

[2] The helipad, the corner of the Skyline Restaurant and the existing formed (ground) access to it and several other features are shown on the annexed plan[1] "Helipad Extension and Skyline Access" marked "A". We will call this the "Rev G plan".

[3] The helipad is on a 4.5 hectare site, legally described as Section 1 Survey Office Plan 22971 and Section 1 Plan 24832 both held in leasehold Certificate of Title 3417, Otago Land Register ("the site"). The site is part of two designations for 'Recreation Reserve' in the Queenstown Lakes District Plan[2]. The site is located within the Rural General Zone of the District Plan and is situated within an outstanding natural landscape[3] as shown on the District's planning maps.

1 Paterson Pitts Group Plan "Helipad Extension and Skyline Access" Rev G, dated 13 February 2015.
2 Designations 221 and 248 [Queenstown Lakes District Plan Volume 1B, Section A1].
3 Within the meaning of section 6(b) RMA.

[4] Commissioners appointed by the Queenstown Lakes District Council granted consent to the application (identified as RM100777 in the Council's records) in a decision dated 14 November 2011. A submitter, ZJV (NZ) Limited (which we will call "ZJV"), the owner of a neighbouring commercial recreation activity on Bob's Peak, appealed to the Environment Court under section 120 of the Resource Management Act 1991 ("the RMA" or "the Act"). The Arthurs Point Protection Society Incorporated ("the society") joined the proceedings as a party under section 274 of the RMA, supporting the appellant.

[5] After the hearing Environment Commissioner Sutherland — whose appointment had been running-on from 1 February 2015 under section 254(4) RMA — was, it appears, succeeded by the Hon Kate Wilkinson as an Environment Commissioner (although there was no notice in the *Gazette* to that effect). When the court became aware of this the Principal Environment Judge appointed Dr Sutherland as a special advisor[4] on 13 November 2015 to assist the court in its deliberations. We are grateful to him for his assistance. The decision is that of the presiding Judge and Commissioner Edmonds.

1.2 The environmental setting

[6] The setting for the proposal includes a range of recreation and tourist activities. The site itself contains the well-known and very visible Skyline gondola and restaurant building, including the restaurant and function facilities, a cafeteria and souvenir shops, specialist stargazing site and a confectionery store. Adjacent to the south-western corner of the building is a paved area (shown on the Rev G plan) with some seating and paths leading off to various activities. A path to the north leads to a chairlift to carry people to a luge[5] including a scenic (slow) track and an advanced (fast) track. Paths to the south lead to walking tracks, mountainbike tracks and to the flying fox ("Ziptrek") operations of ZJV.

[7] Close to the site are several other recreational activities:

4 Under section 259 RMA.

5 This operates under QLDC (resource consents RM970293, RM970548, RM100130 and RM050813).

- north of the site is the most highly used paragliding site within New Zealand. In particular there is a commercial operation G-Force Paragliding which operates tandem paragliding flights from the "east" launching site near the north-western boundary of the site. Both commercial and non-commercial paragliding flights also fly from the west launch area. We note that all pilots must be accredited by a NZHGPA Instructor before they are allowed to fly within CAA designated G756 airspace;
- there is a ledge bungy and swing near the south-western boundary of the site operated by A J Hackett[6];
- the appellant ZJV operates[7] its Ziptreks commencing at the main platform located near the southern boundary of the lease area;
- independent and commercial mountain biking commences within the site (often via the Skyline gondola).

[8] There are several public walking and mountain biking trails in the Ben Lomond Recreation Reserve (including the site). Some continue into the adjoining Ben Lomond Scenic Reserve administered by the Department of Conservation. The trails are popular for independent walkers and mountain bikers. In addition a company called Outside Sports Limited is authorised by resource consent[8] to operate six groups (seven clients plus one guide per group) of guided mountain bikers through a set of trails called the "Ben Lomond Bike Park" utilising the gondola for access.

[9] The most detailed evidence of the use of the site comes from the Independent Safety Review of Skyline Helipad by Andrew Shelley and Heather Andrews of Aviation Safety Management Systems Limited dated 25 August 2014 ("the first ASMS Report"), attached to the evidence-in-chief of the aviation expert called by the Council, Mr A V Shelley[9]. It is uncontested that approximately 550,000 people visit the site each year. Of these, a significant minority move south from the buildings past the helipad including 30,000 Ziptrek visitors[10], 20,000 walkers and runners and approximately 100,000

6 Pursuant to Resource Consent RM940792 and Environment Court decision C17/97 and resource consents, RM970230, RM970664 and RM980241.
7 Under QLDC (resource consents RM071053, RM090922, RM100018 and RM100049).
8 QLDC RM110263.
9 A V Shelley evidence-in-chief Attachment "A" [Environment Court document 7].
10 A V Shelley, evidence-in-chief Attachment "A": first ASMS Report, section 5.3.2, p 23 [Environment Court document 7].

mountain bikers[11]. Many of these are visitors by gondola, or lugers, but the total includes off-site visitors.

[10] As we saw on our site visit, the human activity around the helipad can be frenetic, with walkers immediately adjacent to the fence separating the helipad from the footpath on which they are walking, mountain bikers moving quite quickly past the site, and lugers entering and exiting the tunnel underneath the helipad. While the atmosphere is undoubtedly exciting, the proximity of fast-moving mountainbikers and slow-moving tourists (many with cameras and some with "selfie sticks") can be confusing. The visual complexity of the scene is increased by lugers on the fast track heading towards the paths at an angle to walkers and bikers and then disappearing into the tunnel.

[11] The helipad[12] has been used by helicopters since 1975[13]. Records show[14] that from that year the number of landings at the site increased from 365 in 1984 to 1180 in 1993[15]. Records were not kept between 1994 and 2004, but have been estimated at the average[16] (1270 landings) of flights recorded between 2005-2007. The maximum number of landings by Skyline or its agents was 1365 in 2005[17]. Numbers dipped after the global financial crisis in 2008. A more detailed analysis[18] shows that for the years 2005-2013 there was an average of 22 days per year in which there were 8 to 14 flights. In addition an operator called Glacier Helicopters Limited landed an average of 106 times per year at the helipad[19].

[12] We read evidence that Skyline's guests have not, during the periods referred to above, referred to helicopters in a negative way and Skyline has not been made aware of any complaints to the Council by the public in relation to helicopter use of the helipad[20].

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11 A V Shelley, evidence-in-chief Attachment "A": first ASMS Report, section 5.5.2.2, p 29 [Environment Court document 7].
12 Actually a location 3.3 metres west of the proposed location (see the Rev G plan).
13 M Quickfall evidence-in-chief para 7 [Environment Court document 2].
14 A V Shelley evidence-in-chief Attachment "A": first ASMS Report section 5.3.3 [Environment Court document 7].
15 A V Shelley evidence-in-chief Attachment "A": first ASMS Report section 5.3.3 [Environment Court document 7].
16 A V Shelley evidence-in-chief Attachment "A": first ASMS Report section 5.3.3 [Environment Court document 7].
17 S T Dent rebuttal evidence Appendix B [Environment Court document 5A].
18 S T Dent rebuttal evidence Appendix B [Environment Court document 5A].
19 M Quickfall evidence-in-chief Annexure B [Environment Court document 2].
20 M Quickfall evidence-in-chief para 18 [Environment Court document 2].

We take that into account in our later assessment of the effects of operation of the helipad.

1.3 Status of the activity and the proposed conditions

[13] Resource consent is required for the following activities which are part of the proposal:

- Discretionary activity consent under rule 5.3.3.3(v) for an airport[21];
- Discretionary activity consent under rule 5.3.3.3(i)(a)(i) for the construction of the concrete helipad extension and helimesh structures (buildings);
- Restricted discretionary activity consent under Rule 5.3.3.3 (xi) and Site Standard 5.3.5.1(ix) for a commercial recreation activity[22] involving more than five people in any one group;
- Restricted discretionary activity consent under Site Standard 5.3.5.1(vi)(a) because the proposed helipad extension and helimesh structure will infringe the minimum 15 metre internal boundary setback from the south western boundary of the site.

Because the matter not being complied with in the Skyline operation is that more than five people may be in any one helicopter, it appears the council's discretion (and ours) in respect of the limited discretionary activity is limited[23] to the effects of the extra 3 people in the helicopter (pilot plus 7).

[14] The three planners who gave evidence – Mr S T Dent for the applicant, Mr J A Brown for ZJV and Mr K J Hovell for the Arthurs Point Protection Society Incorporated, a section 274 party – were agreed that, overall, the proposal is a discretionary activity.

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21 Airport is defined as meaning "... any defined area of land or water intended or designed to be used whether wholly or partly for the landing, departure, movement or servicing of aircraft." [QLDP, Volume 1B, p D-1].

22 Commercial recreational activities are defined in the plan as meaning " ... the commercial guiding, training, instructing, transportation or provision of recreation facilities to clients for recreational purposes including the use of any building or land associated with the activity, excluding ski area activities." [QLDP, Volume 1B, p D-3].

23 Rule 5.3.3.3 xi [QLDP p 5-13].

[15] The relevant dimensions and characteristics of the helipad will be[24]:

(a) the helipad is a flat concrete structure built on the sloping hillside of Bob's Peak. Consequently the heliport is not a "surface level" type but "elevated" (in terms of the characterisations used in the Civil Aviation Authority's Advisory Circular AC 139-8);

(b) the touchdown and lift-off area ("the TALO") was 29.5m^2 when the application was lodged and is proposed[25] to be increased to 45m^2. The slope is approximately 3 degrees[26]. We do not appear to have been given the bearing strength of the TALO;

(c) the final approach and take-off areas ("FATO"):

- is defined by the topography so that all approaches are from the eastern sector; approach routes through 180^0 are not feasible[27];
- the recommended dimension[28] for a FATO for the type of helicopters to be used (Aerospatiale AS 350) is a circle of diameter 19.4 metres, but that is not achievable in the north-west sector of the FATO, because there is a pedestrian walkway in that sector;
- the existing TALO is to be moved southeast by 3 metres (the new position is shown on the Rev G plan);
- a skid resistant surface is to be placed on the concrete surface of the helipad[29];

(d) the safety area has been fenced off by a 1.2 metre high fence (replacing the existing chain), and 'helimesh' will be installed:

- for a horizontal distance of no less than 2 metres on the southwestern side of the helipad;
- on the north-eastern[30] side "... of sufficient size to effectively prevent a helicopter rolling on to the luge track in the event of an accident"[31].

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24 This list follows (approximately) the first four items in para 2.1 of the Civil Aviation Authority's AC 139-8 (discussed later).

25 S T Dent evidence-in-chief para 4.7, arrow 4 [Environment Court document 5].

26 S T Dent evidence-in-chief Appendix D [Environment Court document 5].

27 S T Dent evidence-in-chief Appendix E, APL dated 30 October 2012 [Environment Court document 5].

28 S T Dent evidence-in-chief Appendix E, APL dated 30 October 2012 [Environment Court document 5].

29 Exhibit 5.1: Joint Planning Statement dated 16 January 2015.

30 Transcript pp 167 and 168.

31 Exhibit 5.1: Joint Planning Statement dated 16 January 2015 para 7.

Two short sections of the fence are within a radius of 12.705 metres from the centre of the FATO[32] (this is less than the 12.94 metres sought[33] under AC 139-8).

[16] In addition, the amended proposal as put to the court is[34] that the operation will comply with these conditions:

- a maximum of 3,160 flights per year using an Aerospatiale AS 350 B2 helicopter;
- a maximum of eight flights on any one day with "the exception that 15 flights may occur on one day in each consecutive seven day period"[35];
- a maximum of two flights in any fifteen minute period with the exception of five occasions per year when up to three flights may occur in any fifteen minute period for large pre-booked groups when advance notice is provided to Ziptrek;
- a flight will be for either the drop off or pick up of passengers – never both concurrently;
- all flights will operate under the protocols in a "Helicopter Noise Management Plan";
- extension of the fast track luge tunnel by 4.88m west of the existing tunnel;
- establishment of a windsock;
- installation of a fire extinguisher;
- all trafficable areas are to be cobblestoned to reduce dust emissions;
- construction of a fence of 1.2 metres in height along the length of the public walking track that adjoins the helipad;
- separation of mountain bikers and pedestrians by creating two distinct pathways adjacent to the helipad, one of 3.5m width and the other of 2.5m; and

32 Patterson Pitts Group Plan "Helipad Extension and Skyline Access" Rev. G dated 13 February 2015.

33 A V Shelley evidence-in-chief Attachment "A": first ASMS Report p 50[Environment Court document 7].

34 S T Dent evidence-in-chief para 4.10 [Environment Court document 5].

35 S T Dent evidence-in-chief para 4.10 [Environment Court document 5].

- engagement of a suitably qualified person to promulgate the helipad and all protocols for its use and operation in the New Zealand Aeronautical Information Publication.

2. Substantive legal issues

2.1 What matters should be considered?

[17] Under section 104 RMA we must consider:

- the actual and potential effects of the proposal upon the environment;
- the provisions of the relevant statutory instruments.

We must also have regard to the Council's decision[36]. We may have regard to any other relevant matter[37] and, if necessary, to Part 2 of the RMA.

Effects

[18] The planners acknowledged that the proposal has the potential to generate positive effects for approved helicopter operators and their customers and that the activity does create a novelty/enjoyment factor for many of the visitors watching the landings at Skyline.[38]

[19] The planners were agreed that the proposal will have negative actual or potential effects which fall into these categories:

- Dust emissions and odour of exhaust fumes;
- Visual effects and effects on landscape;
- Noise;
- Effects on safety;
- Cumulative effects.

36 Section 290A RMA.
37 Section 104(1)(c) RMA.
38 S T Dent, J A Brown and K J Hovell, Joint Witness Statement, Exhibit 5.1, para 54.

The planners assessed the visual and landscape effects under the relevant assessment matters and against the relevant objectives and policies and agreed[39] that any adverse visual effects, effects on landscape and emissions of dust and exhaust fumes would be minor. We accept the agreed evidence except that on dust which we discuss briefly with other expert evidence below in relation to safety. Noise and safety issues are analysed in parts 3 and 4 of this decision; accumulative effects are analysed in the evaluation (part 5).

Other matters (section 104(1)(c) RMA)

[20] There are two other relevant matters in this case – the Ben Lomond Reserve Management Plan ("BLRMP"), and the provisions of the Civil Aviation Act 1990. The former is particularly relevant because it is expressly relied on by the District Plan as a method of implementing the open space and recreation objectives and policies of the District Plan, but that is not to say guidance cannot also be obtained under the Civil Aviation Act 1990.

2.2 Is there a burden of proof on the applicant?

[21] Dr Somerville submitted that the onus of proof was on the applicant Skyline. He relied on a passage in the decision of the "High Court" in *Ngati Rangi Trust v Genesis Power Ltd*[40]. In fact that is a decision of the Court of Appeal and the passage cited is from the decision of Ellen France J where she wrote (obiter)[41]:

> [22] As the case has developed, I do not consider the case turns on the question relating to the onus of proof.
>
> [23] On that question, it need only be noted I see no difficulty with the statement in *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66 at para [121] that "[i]n a basic way there is always a persuasive burden" on an applicant for a resource consent. As the Environment Court said in *Shirley*, that approach reflects the requirement that a person who wants the Court to take action must prove his or her case. In addition, as the Court observed at [122], there are also statutory reasons for speaking of a legal burden on an applicant:
>
> > Since the ultimate issue in each case is always whether granting the consent will meet the single purpose of sustainable management, even if the Court hears no

39 S T Dent, J A Brown and K J Hovell, Joint Witness Statement, Exhibit 5.1, paras 38 and 46.
40 *Ngati Rangi Trust v Genesis Power Ltd* [2009] NZRMA 312 (CA).
41 *Ngati Rangi Trust v Genesis Power Ltd* [2009] NZRMA 312 (CA) at [22]-[23].

> evidence from anyone other than the applicant it would still be entitled to decline consent. [Footnotes omitted].

[22] Dr Somerville also drew our attention to the provisions of section 104(6) and (7) RMA as added[42] to the RMA in 2009 (i.e. ten years after *Shirley*). These state:

> ...
>
> (6) A consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application.
>
> (7) In making an assessment on the adequacy of the information, the consent authority must have regard to whether any request made of the applicant for further information or reports resulted in further information or any report being available.

These new provisions in section 104 reinforce that there is an evidential burden on the applicant for a resource consent: if an applicant puts forward inadequate information its application may fail.

[23] It is of course easy to articulate the legal test as to the burden of evidence but much harder to apply it. While the burden of proof is relatively easy to apply in the context of facts which need to be proved on the preponderance of the evidence[43], the burden of proof becomes more difficult in respect of predictions of adverse effects of low probability and high (alleged) potential impact.

[24] Indeed that was really one of the chief points of Dr Somerville's submissions in relation to the Civil Aviation Act 1990. Dr Somerville submitted that Skyline needed an approval from the Director of Civil Aviation under Part 157 of the Civil Aviation Rules ("CAR Part 157") and because Skyline did not have one, the court had inadequate information before it on which to determine the crucial safety aspects of the application. We consider the legal aspects of that submission in part 2.5 of this decision.

42 By section 83(6) Resource Management (Simplifying and Streamlining) Amendment Act 2009.
43 Usually shortened to "the balance of probabilities".

2.3 What are the relevant provisions of the district plan?

Objectives and policies in Chapter 4 of the district plan: district wide issues

[25] The most relevant objectives in the District Plan are to be found in Chapter[44] 4 which contains over-arching objectives and policies in respect of "District-wide" issues. Chapter 4.4 contains four objectives relating to "Open Space and Recreation", of which two are relevant. The first – Objective (4.4.3) 2 on "Environmental Effects"[45] – is that recreational activities and facilities should be undertaken in a way which avoids, remedies or mitigates significant adverse effects on the environment or on the recreation opportunities available within the District, and the second – Objective (4.4.3) 3[46] – seeks the effective use and functioning of open space and recreational areas in meeting the needs of the District's residents and visitors.

[26] A key district-wide set of policies is that implementing objective (4.4.3) 2 – Environmental Effects. These are[47]:

> 2.1 To avoid, remedy or mitigate the adverse effects of commercial recreation on the natural character, peace and tranquillity of the District
>
> 2.2 To ensure the scale and location of buildings, noise and lighting associated with recreational activities are consistent with the level of amenity anticipated in the surrounding environment.
>
> 2.3 To ensure the adverse effects of the development of buildings and other structures, earthworks and plantings in areas of open space or recreation on the District's outstanding natural features and landscapes or significant natural conservation values are avoided, remedied or mitigated.
>
> 2.4 To avoid, remedy or mitigate any adverse effects commercial recreation may have on the range of recreational activities available in the District and the quality of the experience of people partaking of these opportunities.
>
> 2.5 To ensure the development and use of open space and recreational facilities does not detract from a safe and efficient system for the movement of people and goods or the amenity of adjoining roads.
>
> 2.6 To maintain and enhance open space and recreational areas so as to avoid, remedy or mitigate any adverse effects on the visual amenity of the surrounding environment, including its natural, scenic and heritage values.

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44 The QLDP is divided into "sections" but to avoid confusion with provisions of the RMA we will call them "chapters".

45 QLDC Plan p 4-25.

46 QLDC Plan p 4-26.

47 QLDC Plan p 4-25.

...

[27] The implementation methods include designation of Council reserves under the Plan, rules and, as an "other method", complementing the use of District Plan procedures by the use of procedures and management plans under the Reserves Act. The BLRMP is therefore of some importance in this case.

[28] Also relevant are two of the three implementing policies for the "effective use" objective (4.4.3) 3. These are[48]:

> 3.1 To recognise and avoid, remedy or mitigate conflicts between different types of recreational activities, whilst at the same time encouraging multiple use of public open space and recreational area[s] wherever possible and practicable.
>
> 3.2 To ascertain and incorporate the needs of communities by encouraging effective public participation in the design, development and management of public open space and recreational areas.
>
> ...

The implementation methods are similar to those for the earlier relevant objective. The "Explanation and Reasons" for the objective note that "...the Council does not favour monopoly use of public areas by particular recreational interests".

Policies and rules in Chapter 5 (Rural Areas)

[29] We now need to enter the thicket of provisions about aircraft and noise in Chapter 5 of the QLDP. The most relevant objective in Chapter 5 is Objective 3 which seeks simply to avoid, remedy or mitigate adverse effects of activities on rural amenity. One implementing policy[49] nearly repeats the objective verbatim (which is not very useful) but two others are relevant and slightly more helpful. They are[50] to:

> 3.1 Recognise permitted activities in rural areas may result in effects such as noise, dust and traffic generation, which will be noticeable to residents in the rural areas.
>
> 3.2 Ensure a wide range of rural land uses and land management practices can be undertaken in the rural areas without increased potential for the loss of rural amenity values.

48 Policies (4.4.3) 3.1 and 3.2 [QLDP p 4-26].
49 Policy (5.2) 3.3 [QLDP p 5-5].
50 Policies (5.2) 3.1 and 3.2 [QLDP p 5-4].

[30] We identified the relevant rules categorising the status of the activities for which consent is sought in part 1.3 of this decision. Most importantly a discretionary consent is needed for operation of the helipad as an "airport" under Rural Areas rule 5.5.3.3(v)[51]. That requires a certain suspension of disbelief, but it is what the rules require.

[31] The introduction[52] to the discretionary activities rule states (relevantly) that "the following shall be **Discretionary Activities** provided that … they comply with all of the relevant **Zone Standards**; and they have been evaluated under the assessment criteria in rule 5.4". We will assess the application under rule 5.4 later. At this point we need to identify the relevant Zone Standards.

[32] Most relevant is Rural Areas zone standard 5.3.5.2(v). That states[53] (relevantly):

> v Noise
>
> (a) Sound from non-residential activities measured in accordance with NZS 6801:2008 and assessed in accordance with NZS 6802:2008 shall not exceed the following noise limits at any point within the notional boundary of any residential unit, other than residential units on the same site as the activity:
>
> (i) daytime (0800 to 2000 hrs) 50 dB $L_{Aeq\,(15\ min)}$
>
> (ii) night-time (2000 to 0800 hrs) 40 dB $L_{Aeq\,(15\ min)}$
>
> (iii) night-time (2000 to 0800 hrs) 70 dB $L_{AF\ max}$
>
> (b) Sound from non-residential activities which is received in another zone shall comply with the noise limits set in the zone standards for that zone.
>
> (c) The noise limits in (a) shall not apply to construction sound …
>
> (d) The noise limits in (a) shall not apply to sound associated with airports or windfarms. Sound from these sources shall be assessed in accordance and comply with the relevant New Zealand Standard, either NZS 6805:1992, or NZS 6808:1998. For the avoidance of doubt the reference to airports in this clause does not include helipads other than helipads located within any land designated for Aerodrome Purposes in this Plan.
>
> (e) When associated with farming and forestry activities, the noise limits in (a) shall only apply to sound from stationary motors and stationary equipment.
>
> (f) The noise limits in (a) shall not apply to sound from aircraft operations at Queenstown Airport.

51 QLDP p 5-12.
52 Rule 5.5.3.3 [QLDP p 5-12].
53 QLDP pp 5-20 to 5-21.

This rule is not easy to understand. The first point is that clause (d) is not applicable because, while it makes an exception to clause (a) by stating that clause (a) does not apply to airports, there is a further exception to that exception in the second sentence: airports do not include helipads (outside designated aerodromes) for the purpose of this rule. Second, clauses (b), (c), (e) and (f) are not relevant to operation of the helipad. Third, the noise witnesses agreed that the noise standard is not breached at the nearest residential addresses for the 15 flights per day sought in the application and so we need not consider (a) further.

[33] The end result is that there is no relevant Zone Standard for the operation of the helipad, and whether or not it is appropriate is to be assessed in our discretion after considering the assessment matters in rule 5.4 of the QLDP, and, if appropriate, the best practicable option for avoiding, remedying or mitigating noise under section 16 RMA.

[34] There is a further complication: one of the confusing aspects of the Rural General rules is that while helipads are not "airports" for the purposes of assessing noise, as we have already recorded, they are still "airports" for the purposes of assessing effects. The assessment matters for discretionary activities for airports contained in Rule 5.4.2.3(xvi) are[54]:

> Assessment matters for discretionary activities – airports
>
> (a) The extent to which noise from aircraft is/will [be]:
>
> (i) compatible with the character of the surrounding area.
>
> (ii) adversely affect the pleasant use and enjoyment of the surrounding environment by residents and visitors.
>
> (iii) adversely affect the quality of the experience of people partaking in recreational and other activities.
>
> (b) The cumulative effect of a dispersed number of airports.
>
> (c) Convenience to and efficient operation of existing airports.
>
> (d) The visual effect of airport activities.
>
> (e) The frequency and type of aircraft activities.
>
> (f) Assessment of helicopter noise pursuant to NZS 6807:1994, excluding the levels contained in Table 1 of Section 4.2.2 to the intent [sic] that the levels specified in Table 1 [of NZS 6807:1994] do not override the noise limits specified in Rule 5.3.5.2v(a).

54 QLDP p 5-36.

We will assess the application under these later (in Part 5 of this decision). Here we should note that application of sub-paragraph (f) is not straightforward. We consider that the word "intent" in clause (f) is probably a mistake and should be "extent". In other words, the exclusion relates to sound received by residential activities from non-residential activities (Rule 5.3.5.2v(a)) and the levels in Table 1 of NZS 6807:1994 that relate to residential activities. That is of little relevance because there is, as we record shortly, no real issue about the effects of helicopter noise from operation of the helipad on residential activities. So Table 1 of NZS 6807 still remains applicable in theory. Unfortunately, as we shall see, Table 1 of NZS 6807 does not really consider the type of situation (activities in a Recreational Reserve) which is before the court in this case. Sub-paragraphs (b)-(d) are not really relevant.

[35] There is also a list[55] of assessment matters for Commercial Recreation Activities under which we need to consider the application. As we observed earlier, the consent authority's discretion is "... confined to the matter(s) specified in the standard(s) not complied with"[56], which means in this case that strictly the relevant matters relate to the number of passengers and crew above a total of five (and the size of the helicopter used to carry them). However they are all relevant – as focussing issues – in relation to the general discretionary activity of running an "airport" (as defined).

Designations

[36] The helipad is within Designation 221 (and possibly partly within 248) located on planning map 13 in the District Plan. Both of these designations are listed as recreation reserves administered by the Council in Appendix A1 of the District Plan. The designation provisions in the QLDP throw up another set of anomalies which we hope will be addressed in the current plan review: there are two nearly identical sets of conditions for designations of recreation reserves: Conditions B[57] and Conditions G[58].

[37] Both sets of conditions include one for noise which states that the day time maximum noise level is 55dBA L_{10} except for activities that are "outdoor recreation". Mr Goodwin, a specialist advisor for the Ministry of Health's Environmental Noise Analysis

55 Rule 5.4.2.3 (xiv) [QLDP pp 5-34 and 5-35].
56 Rules 5.3.3.3 xi [QLDP p 5-13].
57 QLDP Appendix 1:Designations pp A1-20 and A-21.
58 QLDP Appendix 1:Designations pp A1-71 and A-72.

and Advice Service[59], was engaged by Skyline to provide comment on acoustic issues and to quantify the noise environment by making measurements at relevant locations. Mr Goodwin excluded consideration of the designation condition. He was supported by Mr Todd who submitted that the designation conditions are only relevant to the regulation of activities that the Council is permitted to carry out in accordance with its designations. He said there is nothing in the District Plan to suggest that it was the Council's intention for such conditions to function as an indication of the state of the environment for the purposes of section 104 RMA.

[38] Mr C W Day gave evidence on this issue for ZJV. He confirmed that it is widely accepted by acoustic consultants that the L_{10} parameter is not appropriate for controlling isolated noise events such as helicopter flights, and that this rule is not appropriate for this application[60]. He said that one helicopter flight would not comply with any of these noise levels measured in the reserve. That is because the duration of the helicopter noise (arrival + idle + departure) is 3 minutes, an event well over 10% of a typical 15 minute sample, and therefore the upper noise levels determine the L_{10}. However, Mr Day then wrote that in his opinion the limits in condition B9 in the designation give an indication of what the Council regards as a 'reasonable level of noise' for other sources of noise in the reserve[61]. He described these as being low noise limits for rural areas around New Zealand and also that protection of the 'natural quiet values' described in the BLRMP, appear to require rural noise limits.

[39] We find the designation conditions are of some (limited) assistance in assessing the appropriate noise limits for the proposal in this particular setting, but bearing in mind their limitations in terms of the activities applied for.

2.4 What are the relevant provisions in the Ben Lomond Reserve Management Plan?

[40] The BLRMP was formally adopted by the Council on 3 August 2005. It comprises three parts:

59 V C Goodwin evidence-in-chief para 1 [Environment Court document 4].
60 C W Day evidence-in-chief para 3.6 [Environment Court document 11].
61 C W Day evidence-in-chief paras 12-14 [Environment Court document 11].

A: Planning Framework.

B: Management Goals, Objectives and Policies.

C: Action Plan.

[41] Under Part A: Planning Framework, the BLRMP states that the use and management of the reserve needs to take into account the objectives, policies and rules of the District Plan. The relevant objectives were set out earlier and the policies will be considered in due course.

BLRMP's objectives and policies

[42] The overall objectives for the management of the Ben Lomond reserves are identified in Part B – Management Goals, Objectives and Policies – of the management plan as including [62] protection of the reserves' natural quiet values, and provision for recreation and tourism activities, including commercial activities that do not adversely impact on landscape, recreation and natural values.

[43] Under the overall objectives, there are two further tiers of objectives being goals – which are two or three word slogans – and a third level of objectives which finally identify implementing policies. The goals are:

1. Effective Management[63];
2. Enhanced Biodiversity[64];
3. Recreation Opportunities[65]; and
4. Protect Landscape Values[66].

Of these goals 1, 3 and 4 are relevant.

[44] Under Goal 1(Effective Management) there are two objectives about occupation agreements[67]. The first is relevant[68]. It is:

62 Part B: Management Objectives, Goals and Policies. 7.0 Overall Objectives [BLRMP p 24].
63 Para 9.0 [BLRMP p 29].
64 Para 10.0 [BLRMP p 33].
65 Para 11.0 [BLRMP p 35].
66 Para 12.0 [BLRMP p 39].
67 9.3 Objective: Occupation Agreements [BLRMP p 3].
68 The other relates to Queenstown Hill.

To issue occupation agreements to commercial operators and other users of Ben Lomond reserve land which are compatible with the values of the reserve and support the long-term objectives for reserve development and use.

[45] Implementing policies include[69]:

...

10. Helicopter landings will be restricted to those required for reserve management requirements (such as wilding pine control, forestry operations, search and rescue and fire control) and landings at the helicopter landing pad adjacent to the Skyline Gondola Terminal for tourism purposes. These landings will be subject to helicopter operators having obtained a licence to land from the QLDC and complying with the following conditions:

- Only one helicopter to be on the helipad at any one time
- No helicopter is to make an approach to the helipad or operate over the reserve while the pad is occupied by another helicopter
- That the use of the helipad be limited from 10 a.m. to 7 p.m. daily
- That the flight path to the helipad be such that flying over the urban areas of the District be prohibited
- That scenic flights originating from and returning to the helipad be prohibited
- That operators pay a licence fee as set from time to time by the QLDC.

The Council will continue to monitor the effects of helicopter landings at the Skyline Terminal and may impose limits on the number and frequency of flights via the licences issued.

Thus the BLRMP expressly contemplates helicopter landings on the site. However, no limits of the number and frequency of flights have been imposed.

[46] Goal 3 (Recreation Opportunities) has these objectives relevant to Ben Lomond[70]:

1. Limited provision of commercial tourism based recreation activities that rely on the unique topography and location of Ben Lomond reserve, and are compatible with the reserves wider values.

69 Policy (9.3.1) 10 [BLRMP p 32].
70 Objective (11.1) 1 to 3 [BLRMP p 37].

2. Enhancement of opportunities for casual recreation activities that are based on the enjoyment of the reserves natural environment, topography and landscape views, and are compatible with the reserves wider values.
3. Restoration of the historic Powerhouse and associated landscape development to include carparking, stream restoration, improved access and circulation and provision for future interpretive facilities, public amenities in accordance with a landscape plan approved by Council.

[47] Goal 4 (Protect Landscape Values) has three very brief relevant objectives[71]:

1. Current landscape values protected and maintained.
2. Limit development of built facilities.

...

5. Reduce potential for fire risk and damage.

[48] We also mention that Goal 4 has an introductory section which expressly relates to the application. It states:[72]

> Helicopter operations over the reserve have a detrimental effect on the natural quiet of the reserve and have the potential to adversely affect the experience of users. However, they are considered an important component of the Tourism services available. As such licenses have been issued for limited landings on the reserve at the Skyline restaurant site. In 2003, 1531 licensed landings were made at this site. This situation will need to [sic] monitored carefully and reassessed when new or renewal of helicopter licenses is considered to ensure that an acceptable balance is achieved. However, it also needs to be recognised that this management plan has no ability to prevent or restrict helicopters flying over the reserve.

This passage neatly summarises the tensions which have led to this appeal.

[49] Implementing the landscape goal are two policies of particular relevance in policy 12.1.1. These are[73]:

...

5. To work with the relevant agencies to ensure that an active fire prevention strategy is in place.

---

71 BLRMP p 40.
72 BLRMP p 39.
73 BLRMP p 41.

...

7. To limit helicopter landing on the reserves to ensure that a balance is achieved between meeting the demand for this tourism activity and protecting the reserves "natural quiet" values.

Action plan

[50] For completeness we record that under Part C (Action Plan) of the BLRMP there is the following entry under Ben Lomond Reserve:[74]

> Helicopter use: Review the helicopter arrangements in terms of number and times of flights to Ben Lomond.

A "Priority classification" suggests that is to occur every three years. Mr Dent said that, to his knowledge, that had not happened[75], which rather contradicts the BLRMP's statement that it is kept under continuous review[76]. Rather more helpfully the appellant's closing disclosed that the management plan for the Reserve is about to be formally reviewed as provided for every 10 years under the Reserves Act 1977.

2.5 What is the relevance of Part 157 of the Civil Aviation Rules and the Advisory Circulars?

CAR Part 157

[51] The Civil Aviation Rules ("CAR") Part 157 are headed "Notice of Construction, Alteration, Activation, and Deactivation of Aerodromes". The following sections of CAR Part 157 were identified by Dr Somerville as relevant (amongst others).

> **157.1 Applicability**
>
> (a) This Part prescribes rules for persons proposing to construct, alter, activate, or deactivate an aerodrome or heliport of the kind specified in paragraph (b).
>
> (b) This Part applies to an aerodrome or heliport unless it is ...
>
> (The exceptions are not relevant)

74 Part C: Action plan [BLRMP p 42].
75 Transcript, p 98, lines 20-23.
76 Para 2.2.2(1) [BLRMP p 7].

157.3 Definitions

For the purposes of 157.1 and 157.5:

"Heliport" means any defined area of land or water, and any defined area on a structure, intended or designed specifically for use by helicopters.

157.5 Projects requiring notice

Each person who intends to do any of the following (who in this Part is referred to as a 'proponent') shall notify the Director in the manner prescribed in 157.7:

(1) construct or otherwise establish an aerodrome or heliport to which this Part applies or activate such an aerodrome or heliport.·

(2) construct, re-align, alter, or activate any runway or other aircraft or take off area or an aerodrome or heliport to which this Part applies:

157. 7 Notice of intent

(a) The notice required by 157.5(1), (2) and (3) shall be submitted on CAA Form 24157/01 to the Director at least 90 days before the day that work is to begin.

157.9 Aeronautical study

(a) On receiving a notification under 157.7(a), the Director shall conduct an aeronautical study.

(b) In conducting the aeronautical study, the Director shall consult with such persons, representative groups, and organisations as the Director considers appropriate.

(c) The purpose of the aeronautical study shall be to consider the effects that the proposed action would have on the safe and efficient use of airspace by aircraft, and on the safety of persons and property on the ground. In particular, the aeronautical study shall consider the following:

(1) the effect the proposed action would have on existing or contemplated aerodrome traffic circuits of neighbouring aerodromes;

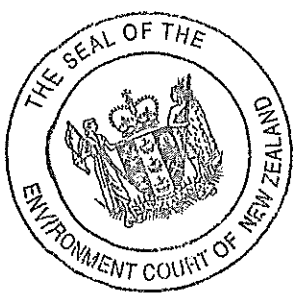
(2) the effect the proposed action would have on existing and projected airspace uses:

(3) the effect the proposed action would have on the safety of persons and property on the ground:

(4) the effect the existing or proposed man-made objects and natural objects within the affected area would have on the proposed action.

(Underlining added)

The rules then provide[77] for the Director of Civil Aviation ("the DCA") to make a determination falling into one of three categories: unobjectionable, conditional or objectionable.



[77] CAR Part 157, rule 157.11.

[52] Where there is an "unobjectionable determination" by the DCA that can be very useful to the consent authority or, on appeal, this court. As Justice Ellis stated[78] in *Director of Civil Aviation v Planning Tribunal* "While the essential function of the director is to set the minimum safety standards that are acceptable, and that must involve some degree of risk, and while in the ordinary situation that would normally satisfy a council or the tribunal, nevertheless the tribunal is entitled to take a more particular look at the communities affected". That decision was relied on by the Environment Court in *Dome Valley District Residents Society Incorporated v Rodney District Council*[79] where the Environment Court held:

> ...
>
> (b) That the CAA unobjectionable determination that the proposed heliport may be activated, is decisive for the purpose of the Civil Aviation Rules and is not open to being challenged in these proceedings.
>
> (c) That the Court is entitled to treat the unobjectionable determination as evidence on which it could rely as tending to show that there would not be significant potential effects on the safety of people and property of allowing the heliport.

[53] As the evidence set out earlier and the amended site plan (the Rev G plan is the latest version) show, there have been a number of alterations to the helipad and more are proposed by Skyline. Despite that, no application to the DCA appears to have been made. Indeed Skyline has consistently taken the view that no determination – even for an alteration – for the DCA is required. That seems implausible to us, although we do not have power to rule on the issue. In any event there is no "aviation document" on which the court can rely.

[54] Dr Somerville submitted that, without the safety study he said is required under CAR 157 and without the DCA's determination, the court "... has insufficient information to judge the risk of actual or potential effects on the safety of people and property in the reserve from the operation of the helipad. The court will be unable to discharge its judicial responsibility to consider and address safety issues ..."[80]. He cited

78 *Director of Civil Aviation v Planning Tribunal* [1997] 3 NZLR 335 at 340.

79 *Dome Valley District Residents Society Incorporated v Rodney District Council* A 099/2007 at [139].

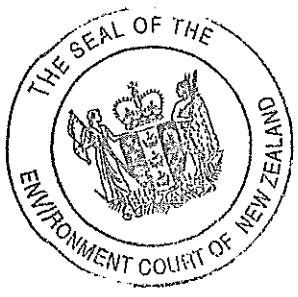
80 R J Somerville Closing Submissions para 1.17 [Environment Court document 18].

a passage from *Southern Alps Air Limited v Queenstown Lakes District Council*[81] where the High Court was considering Appendix 1 to Part 80 of the Maritime Rules (despite the name of the case it was about competing jet boat operators, not about aerial operations). Justice Panckhurst wrote[82]:

> [76] The provisions in Appendix 1 are unlike a building code, or other regulatory provisions, which contain fixed provisions, upon which the Environment Court can rely without difficulty in granting a resource consent. Appendix 1 envisages a more dynamic and flexible regime, which is responsive to the problems associated with different rivers and the need to tailor safe operational plans to accommodate multiple operators on a river. This poses the problem that, unless the Environment Court has before it safe operational plans, approved by the Harbourmaster and which provide assurance as to passenger safety, its overarching judicial responsibility is incapable of fulfilment.

While superficially that passage appears to support Dr Somerville's submission, the context is quite different. In the jet boat case the court was trying to reconcile two "safe operational plans" – one for the applicant and one for the existing (competing) jet boat operator – in a situation where the competitor was entirely uncooperative, so that the court could only add conditions relating to one operating plan.

[55] In this case counsel for the QLDC, supported by Mr Todd, pointed out that the helipad has been operational[83] since 1975. They submit that CAR Part 157 does not require notification of a helipad in existence and operating prior to 8 July 1993, and that notification for any alteration is not required until it is triggered by the proposed alteration. It would seem that under 157.5(2), the proposal to specifically alter the existing heliport, "landing and take off area", should be notified to the CAA under 157.7 (although apparently CAA practice on this is inconsistent) 90 days before the work (in this case the alteration of the landing and take off area) is commenced[84]. We were, and remain, slightly puzzled by this submission since some alterations have been made already.



81 *Southern Alps Air Limited v Queenstown Lakes District Council* [2008] NZRMA 47.
82 *Southern Alps Air Limited v Queenstown Lakes District Council* [2008] NZRMA 47 at [76].
83 M Quickfall evidence-in-chief para 7 [Environment Court document 2].
84 CAR 157.7(a).

[56] In any event, upon receiving notification, the DCA will be obliged to conduct an aeronautical study[85]. The purpose of an aeronautical study is to consider the effect "that the proposed action" (the alteration to the landing and take off area at the heliport) may have on the "safe and efficient use of air space by aircraft and on the safety of persons and property on the ground".

[57] Skyline also alleges that the CAA appears to be supportive of its proposal, relying on the letter of 20 November 2012 from an Aeronautical Services Engineer at the CAA which states[86]:

> The CAA has no issues with the proposal and welcomes the mitigations that are proposed to be put in place to compensate for not being able to fully comply with AC139-8.
>
> It may be of interest to note that we have recently published for comment a revised advisory circular on heliport design. The AC has been amended to comply with the international standards and recommended practices.
>
> There are two amendments that may have a positive effect on the helipad. The first is that the current recommendation for having two approaches 180^0 apart has been removed, and the recommended sizes of the FATO and TALO have been reduced.

Counsel submit that the CAA was focusing on the proposed changes, which it has jurisdiction to consider, and regards them as improvements. On the other hand this letter from an officer of the CAA is non-binding and we accept Mr Bermingham's opinion[87] that it should be given little weight.

[58] Skyline and the QLDC submit that the court is being asked to consider an application which seeks to "legalise" the operation of the helipad as a whole, not just to grant consent for the alterations. Mr Ray submits it is also being asked to consider frequency of use based upon environmental considerations, principally noise effects and the effects on safety from the operation as a whole and not limited to effects from the alterations alone. As a result the Court's consideration of potential adverse effects, including safety is required to be broader in scope and differently focused than any

85 CAR 157.9.
86 S T Dent evidence-in-chief, Appendix E [attachment to Environment Court document 5].
87 Transcript pp 189-190.

investigation by the DCA. Mr Ray submitted that regardless of whether there is input on safety matters by way of a 157 determination, the court has an "overarching responsibility" as stated by the High Court in *Southern Alps Air Limited v Queenstown Lakes District Council* to satisfy itself that safety is assured[88].

[59] We consider the correct approach is that the absence of an "aviation document" or of a "determination" from the DCA is neutral in respect of Skyline's application, although that absence may make the evidential burden more difficult for the applicant to meet. We should consider all the safety issues raised by the evidence, including the discussion of Part 157 CAR and then consider our predictions as to risks to safety as part of our overall evaluation of the application.

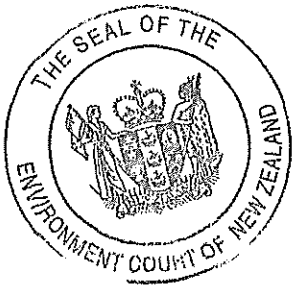
The relevant parts of AC 139-8: Aerodrome Design: Heliports

[60] There is also a CAA Advisory Circular AC 139-8 called: *Aerodrome Design: Heliports*. We were given Revision 2 dated 27 April 2007. Its recorded purpose is[89] to provide methods acceptable to the Authority for showing compliance with the design of heliports located within a populous area in Part 139 of the Civil Aviation Rules (CAR).

[61] AC 139-8 commences:

> **General**
>
> Civil Aviation Authority advisory circulars (AC) contain information about standards, practices and procedures that the Authority has found to be acceptable for compliance with the associated rule.
>
> Consideration will be given to other methods of compliance which may be presented to the Authority.
>
> When new standards, practices or procedures are found to be acceptable they will be added to the appropriate advisory circular.
>
> In addressing a subject the use of the imperative "shall", a term not normally welcome in an AC, is because it is associated with mandatory provisions of the Rule itself.

This sentence is curious because the word "shall" never occurs elsewhere in AC 139-8, whereas the word "should" is used repeatedly. We consider that the circular AC 139-8 provides guidance only; compliance with it is not mandatory.



88 *Southern Alps Air Limited v Queenstown Lakes District Council* (HC) [2008] NZRMA 47 at [62].
89 AC 139-8 p 1.

[62] Chapter 1 of AC 139-8 is also headed "General". Its first two sections – before the definitions – state (relevantly):

> **1.1 Introduction**
>
> **1.1.1** This AC provides acceptable design specifications for heliports located in populous areas. This AC is not exhaustive and further detailed specifications can be found in ICAO Annex 14, Volume II, Heliports.
>
> **1.1.2** The function of the touchdown and lift-off area (TALO) and certain associated elements are vital in providing for safe and efficient helicopter touchdowns and lift-offs. The design of these areas must take into account the operational and physical characteristics of the helicopters expected to use the heliport.
>
> **1.2 Heliport site selection**
>
> **1.2.1** Heliport design and location should be such that cross wind operations are kept to a minimum and downwind operations avoided. Ideally heliports should have two approaches 180 degrees apart, which should give an acceptable degree of usability provided one approach is into the prevailing wind direction.
>
> **1.2.2** The presence of buildings or some other obstacles may prevent a 180 degrees approach orientation. In such a situation, the approach… should not be less than 90 degrees apart.
>
> …

The Skyline helipad only has one approach – from the east – so the ideal in paragraph 1.2.1 is not attained (although we understand from the evidence that this paragraph may be dropped from the next Advisory in any event).

[63] AC 139-8 provides for three types of helipad:

- surface level heliports[90];
- elevated heliport[91]; and
- helidecks.

Much of the description and design of Skyline's helipad seems to be based on the assumption (as least until the hearing before us) that it is a "surface level heliport",

90 Part 3.1 AC 139-8.
91 Part 3.2 AC 139-8.

whereas as Mr Bermingham observed[92], the steep drop-offs to the east of the site suggest that in some ways it is better characterised as an "elevated heliport".

[64] We consider the standards suggested by AC 139-8 when considering the safety risks posed by operation of helicopters at the helipad below.

3. Predicting the effects of helicopter noise

3.1 Introduction to the noise issues

[65] Helicopters are notoriously noisy. That noisiness is of particular importance in this case where a helipad is proposed on a site which is already used by a large number of people for out of doors activities. We first assess the effects of the noise created by a helicopter approaching the helipad at Bobs Peak, landing there, idling while passengers alight, taking off and then leaving the area. This sequence of events, which we refer to as a flight with two movements, may take up to four minutes[93].

[66] We add that Mr Todd contended[94] that noise from a helicopter flying more than 500 feet above a non urban area or above 1000 feet for an urban area is not within our jurisdiction. Mr Street took issue with this suggesting that the 1000 feet limit should apply above Bobs Peak[95]. We do not have to resolve that issue because it is noise at the helipad (or very close to it) which is the issue in this proceeding.

[67] Associated with each flight is a sound exposure level ("SEL"). This can be thought of as the sound pressure which, if maintained constant for one second, would have the same sound energy as the actual event. It is a measure of short term noise effects experienced by those in the vicinity of the noise source which in this case is a helicopter movement. Such effects may include aural discomfort, interrupted conversations and a diminished experience for many of those otherwise enjoying the reserve.

[68] Also of importance is the time average sound level over a twenty four hour period which is referred to as L_{dn} and expressed in decibels (dB). In reflecting the

92 Transcript p 195-6.
93 V C Goodwin evidence-in-chief para 103 [Environment Court document 4].
94 G M Todd opening submission para 31 and 32 [Environment Court document 1].
95 C Streat Legal Submissions dated 4 May 2015 [Environment Court document 26].

number of movements per day and their duration, L_{dn} is important in any consideration of amenity values associated with the use of the reserve. It is of significance for regular users of the reserve and in particular Ziptrek staff.

[69] Two other matters to bear in mind are, first, that the helicopter noise is cumulative with the existing noise environment; and second that the helipad has been used for about forty years as described earlier.

3.2 Potential acoustic issues

[70] Parts of Mr Goodwin's evidence on potential noise effects were not challenged by any witness. We summarise the unquestioned opinions[96] as follows:

- The short duration exposure to helicopter noise by any person in the vicinity of the helipad could not induce hearing loss. Any effects would be transitory and mild.
- Stress related health effects require long term exposure and thus are unlikely to occur in any visitors to the reserve.
- Potential for speech interference is high within 50 metres of the helipad which includes Ziptrek's first Tree House. There, Mr Goodwin observed increased vocal effort being required by tour guides briefing guests during helicopter movements. No such increased effort was observed at the Skyline building observation deck or at the bungy jump waiting areas.
- Noise induced annoyance may occur in some people.

[71] We will consider the effects of noise from the operation of helicopters approaching, sitting on, and departing from, the helipad from the outside in, because it is the effects on activities close to the helipad which are, on the evidence, of most importance.

Noise measurements in Queenstown

[72] Noise measurements at four sites in Queenstown were undertaken in June 2011 to ascertain compliance with the District Plan noise limit of a L_{eq} (15min) of 50 dBA[97]. The results were calculated assuming 15 flights per day and with a 1 or 2 flight limit in

96 V C Goodwin evidence-in-chief paras 42-63 [Environment Court document 4].
97 V C Goodwin evidence- in-chief paras 86 -93 [Environment Court document 4].

any 15 minute period. Only those noises thought to be within jurisdiction were considered.

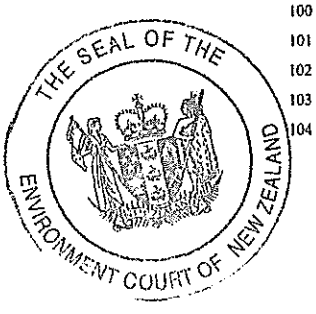
[73] At the two residential sites (92 Isle Street and 23 Robins Road) the noise complied. Mr Day, the only other acoustic expert giving evidence, agreed with these results[98] and concluded the flights do not have a significant noise effect at these residential sites.

[74] Results obtained from the camping ground chalet site exceeded the noise limit by up to 3dB when a penalty of 5dB was imposed for the possibility of blade slap occurring as the helicopter arrived at and left the helipad[99]. This penalty should be applied only if there are special audible characteristics, such as blade slap, present in the noise being measured, and in fact no blade slap was present during any of the flights[100]. The opportunity to observe three further flights to Skyline occurred in September 2011. In none of the six movements were any signs of blade slap observed[101]. It was Mr Goodwin's view that blade slap should not arise if helicopter pilots adhere to the Helicopter Noise Management Plan[102] as required by the proposed conditions of consent. This plan[103] requires pilots "to avoid blade slap during approach and departure" by avoiding steep turns and using only smooth and gradual control inputs. Special care is required for three nominated flight movements. On this basis Mr Goodwin revised his assessment and affirmed compliance at each of the three representative sites investigated[104]. This was not disputed.

[75] The fourth site was the Kiwi Birdlife Park whose opposition has been withdrawn. Thus this site is no longer of concern.

[76] Complaints have been made to the Council related to helicopter noise arising from flight tracks from the direction of Ben Lomond flying around the hillside for an

98 C W Day evidence-in-chief para 2.1 [Environment Court document 11].
99 V C Goodwin evidence-in-chief para 87 [Environment Court document 4]
100 V C Goodwin evidence-in-chief Appendix C para 21 [Environment Court document 4].
101 V C Goodwin evidence-in-chief Appendix D para 7 [Environment Court document 4].
102 V C Goodwin evidence-in-chief Appendix D para 2 [Environment Court document 4].
103 S T Dent rebuttal evidence Attachment C [Environment Court document 5A].
104 V C Goodwin evidence-in-chief para 114 [Environment Court document 4].



approach to the Skyline helipad. However, measurements showed the associated noise within jurisdiction was well within District Plan noise limits[105].

3.3 Noise effects in the vicinity of the helipad

[77] People affected by the helicopter noise include those using the picnic area close to the helipad, those walking from the gondola station to the Ziptrek facility, mountain bikers and luge riders as they pass the helipad and those simply enjoying the views from the vicinity. No concerns were raised in regard to people in the gondola station.

Effects on Ziptrek's operations

[78] Ziptrek provides tours for its guests in a combination of ziplining and ecology sessions in a natural setting. Open tree houses at the ends of each zipline are a key aspect in providing that setting[106]. Being unwalled and unroofed, but with a partial roof on the First Tree House, they have no acoustic insulation. The First Tree House is within 50 metres of the helipad and two others over which the helicopter approach paths pass are "generally within 500 feet" of the descending helicopter[107]. Each tour starts with a 10 to 12 minute safety briefing in the First Tree House which is followed by an ecology talk and launching of the guests onto the first zipline. The pattern is repeated at each tree house[108]. Mr Easter, an experienced Ziptrek tour guide, wrote[109] that the helicopters' close proximity to the zipline is distracting and unpleasant for guests and makes communication with guests very difficult. In his opinion the problems are exacerbated if guests have hearing difficulties or when, as often happens, the guests do not have English as their first language.

[79] Each Ziptrek tour has two guides who maintain communication by radio as a key element in Ziptrek's safety management plan. They are stationed at each end of the zipline being used and communicate each time a guest is launched and lands[110]. Helicopter noise hinders effective communication between the guides which can place them in stressful situations. Mr Easter estimated that from his experience of guiding some 2000 tours, one in five had been affected by helicopter noise, with one in six being

105 V C Goodwin evidence-in chief para 111 [Environment Court document 4].
106 T A Yeo evidence-in-chief, para 30 [Environment Court document 13].
107 T A Yeo evidence-in-chief para 46 [Environment Court document 13].
108 C H Easter evidence-in-chief paras 7 to 10 [Environment Court document 14].
109 C H Easter evidence-in-chief para 15 [Environment Court document 14].
110 C H Easter evidence-in-chief paras 21 to 24 [Environment Court document 14].

affected at the first Tree House[111]. Ziptrek operates for 6 to 7 hours per day with trips scheduled every 20 minutes[112]. This equates to about 18 to 21 trips in a day of which 3 or perhaps 4 may be affected at the first Tree House.

Noise measurements at Bobs Peak

[80] Acoustic measurements were made on September 2, 2014 at three sites in the vicinity of the helipad: on the first Tree House balcony of the Ziptrek operation, above the briefing area in the Tree House, and adjacent to the picnic area on Skyline's site. Noise from five flights each with six passengers using an AS350B2 helicopter was recorded at each site. It is this model of helicopter that Skyline intends to use should consent be granted[113]. As a result of this testing Skyline reduced the proposed number of flights and restricted each flight to either passenger drop off or pick up[114].

[81] As neither Mr Goodwin nor Mr Day was satisfied the testing had produced a robust set of results[115] a further set of tests was undertaken on November 27, 2014. These fifteen flights with an AS350B2 helicopter each involved either "drop off only" or "pick up only" with six passengers thus reproducing the proposed flight operations. Mr Day and Mr Goodwin agreed the balcony at Ziptrek's first Tree House was the critical location for measurements[116]. Measurements were also made in the rafters of the Tree House above the briefing area and adjacent to the picnic area.

[82] Eight of the flights involved the helicopter landing facing north east while in seven flights the helicopter faced northwest on the helipad. The north east orientation resulted in a SEL value of 103.1dBA at the first Tree House balcony while with the helicopter facing northwest on the helipad the measured value was 104.3dBA[117]. It is these values that must inform decisions on the appropriate number of flights per day and on the landing procedure.

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111 Transcript p 233.
112 Transcript pp 228 and 229.
113 V C Goodwin evidence-in-chief paras 117 and 118 [Environment Court document 4].
114 V C Goodwin evidence-in-chief para 122 [Environment Court document 4].
115 V C Goodwin rebuttal evidence para 5 [Environment Court document 4A].
116 V C Goodwin supplementary evidence para 12 [Environment Court document 4B].
117 V C Goodwin supplementary evidence Appended Report tables 2 and 3 [Environment Court document 4B].

[83] We observe that Mr Goodwin did not refer to the effects on Ziptrek staff in his evidence. Mr Easter's estimate of 1 in 5 tours being affected suggests, given the duration of individual tours, that a tour guide would be exposed to the helicopter noise no more than twice a day should the current level of helicopter activity continue. Should a staff member be at the reception desk throughout the day there could be adverse effects which Skyline says would be controlled by imposing a maximum L_{dn} value on the helicopter operation and on the number of flights.

3.4 Assessment of noise effects under the rules and NZS 6807:1994

[84] We have already recorded that the discretionary "airport" rule[118] relating to helicopter noise requires[119] assessment under NZS 6807:1994. Accordingly Mr Goodwin assessed his results in terms of the L_{dn} metric as required by that standard. Mr Day also recommends the use of this standard for assessing the results of helicopter noise measurement[120] including the use of the L_{dn} parameter. While the planners also agreed that the use of NZS 6807:1994 is the appropriate way to assess the results[121], that is not as helpful as it sounds for reasons we identify shortly.

[85] Table 1 of NZS 6807 sets out suggested limits of acceptability for various land uses of surrounding areas as follows:

Table 1 – Limits of acceptability

Affected land use		L_{dn} night-weighted sound exposure Pa^2s	L_{dn} day-night average sound level dBA	L_{max} night-time maximum sound level dBA
(i)	Industrial	1000	75	n/a
(ii)	Commercial	100	65	n/a
(iii)	Residential	3.5	50	70
(iv)	Rural (at notional boundary)	3.5	50	70
(v)	Residential (internal)	0.3	40	55

118 Rule 5.3.3.3(v) [QLDP pp5-12 and 5-13].
119 Rule 5.4.2.3 xvi (f) [QLDP p 5- 36].
120 C W Day evidence-in-chief para 3.11 [Environment Court document 11].
121 S T Dent, J A Brown and K J Hovell Joint Witness Statement para 42 [Exhibit 5.1].

[86] From the SEL values recorded at the First Tree House balcony, the corresponding L_{dn} value for any number of like flights per day can be calculated. For the helicopter facing north east (which is quieter) the L_{dn} values for the current 4 flights per day, the proposed 8 flights per day and the proposed 15 flights per day are, respectively, 59.8dBA, 62.8dBA and 65.5dBA. From these numbers the number of flights per day resulting in given L_{dn} values can be found. Mr Goodwin and Mr Day agreed[122] on the results of these calculations which are reproduced in the following table 2 from their joint statement. It shows the number of flights required to produce the L_{dn} values used in NZS 6807:1994 within various receiving environments[123].

Table 2 – Flight Numbers vs Noise Level (Ziptrek Balcony)

Helicopter Type/Procedure	SEL	No. Flights 50 dB Ldn	No. Flights 55 dB Ldn	No. Flights 60 dB Ldn	No. Flights 65 dB Ldn
AS350 with management	103.1 dB	0.4	1.3	4.2	13.5
AS350 without management	105.5 dB	0.3	0.8	2.5	7.7

[87] Where the two acoustic experts disagreed was over the L_{dn} value to be used in assessing the appropriate daily number of flights. In terms of the NZS 6807 Table 1, Mr Goodwin gave evidence[124] that the Ziptrek activity came under the affected land use 'commercial'[125] and that 65 dBA should apply. He wrote[126]:

> There is no criterion in NZS 6807 for protection of recreational activities from helicopter noise and I do not consider this [65 dB Ldn] is a problem in a commercial environment where there are no residences and any exposure of visitors is transitory, and based on experience of past and current usage of the helipad, acceptable.

Mr Goodwin said that the Rural descriptor in NZS 6807 should not apply, drawing on and relying on the reference to affected Rural land use as applying only to a rural

122 Joint Statement from Acoustical Witnesses, Table 2 para 7. [Exhibit 11.1].
123 Receiving environments listed are: Industrial, Commercial, Residential, Rural and Residential (Internal).
124 V C Goodwin Supplementary Statement, paras 23 to 25 [Environment Court document 4B].
125 Transcript, p 59, lines 6-7.
126 V C Goodwin Supplementary Statement, paras 23 to 25 [Environment Court document 4B].

dwelling and its curtilage[127]. In his opinion, and this was Skyline's position, the classification of affected land use should be 'commercial'.

[88] Ziptrek considered that this was not the correct classification and pointed out that the guideline does not specifically refer to the receiving environment of a recreation reserve[128]. Mr Day did not agree that the affected land use, ZJV's Ziptrek, is a commercial land use and that an L_{dn} of 65 dBA would be the appropriate level to assess the application against. Mr Day considered the intention of the table is that a commercial land use is predominantly for commercial activities (such as the warehouses, quarry activities and offices located on the road leading into Queenstown from Arthurs' Point[129]).

[89] Mr Day considered the receiving environment to be a busy recreational reserve[130] and made something in his evidence of the lack of guidance in NZS 6807's Table 1 not just for Ziptrek but also for other affected recreational activities. The thrust of the cross-examination[131] of Mr Day was that he was incorrectly interpreting the "commercial" land use in the table as akin to a commercial 'zone' but we consider that is to construe the basis of Mr Day's opinion too narrowly. He was emphasising that the use of the reserve is not really contemplated by the categories of "Affected land use" in Table 1 of NZS 6807.

[90] The parties drew our attention during the course of the hearing to various definitions in the District Plan: Commercial recreational activities[132], Commercial activity[133], Recreation[134], and Recreational activity[135]. However, we take the view that

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127 In terms of the affected land use Rural (at notional boundary) NZS 6807:1994 defines 'Notional Boundary' as: The notional boundary is defined as a line 20 metres from the façade of any rural dwelling, or the legal boundary where this is closer to the dwelling.

128 Dr R Somerville closing submissions para 2.12 [Environment Court document 18].

129 C W Day evidence-in-chief section 3 [Environment Court document 11] and Transcript, p 238, lines 30-35.

130 Transcript, p 239, lines 4-10.

131 Transcript p 237 et ff.

132 See the footnote in part 1.3 of this decision where this definition is given.

133 Means the use of land and buildings for the display, offering, provision, sale or hire of goods, equipment or services, and includes shops, postal services, markets, showrooms, restaurants, takeaway food bars, professional, commercial and administrative offices, service stations, motor vehicle sales, the sale of liquor and associated parking areas. Excludes recreational, community and service activities, home occupations, visitor accommodation, registered holiday homes and registered homestays [QLDP p D-3].

134 Means activities which give personal enjoyment, satisfaction and a sense of well being [QLDP p D-9].

NZS 6807 uses its categories of land use, not in terms of any specific Plan, but in a normal (dictionary) sense of the words because the standard is designed to be applied throughout New Zealand.

[91] We see Table 1 of NZS 6807 as involving generic land uses, not specific zonings or specialised meanings. In the table the affected land use "Rural" specifies the L_{dn} day-night average sound level of 50 dBA for residential activity only (received at the notional boundary) and is unhelpfully silent on the level of noise for receivers of other Rural land uses generally. The table does not cover a receiving environment that includes commercial recreational activities such as Ziptrek, or for that matter even recreational land uses generally or those that would be anticipated in a reserve of this nature. The situation we are dealing with does not fit readily into any of affected land use categories in Table 1.

[92] In any event Table 1's "limits of acceptability" are only a guideline not an absolute standard as NZS 6807 itself makes clear. Table 1 comes under a list of assessment criteria which NZS 6807 states[136]:

> ... represent the minimum acceptable degree of protection for public health and the environment. In some cases, controls that provide for a greater degree of protection may be appropriate when taking into account community expectations, local conditions, or the maintenance and enhancement of amenity values.
>
> ...

We conclude that this guideline is not fine grained enough to inform the situation we have in front of us. In any event we are not bound to follow New Zealand Standards – *McIntyre v Christchurch City Council*[137]. The Court in *Dome Valley District Residents Society Incorporated v Rodney District Council*[138], upheld by the High Court on appeal[139], was dealing with occupiers of residential zones and affected rural dwellings and is not relevant to the facts of this case.

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135 Means the use of land and/or buildings for the primary purpose of recreation and/or entertainment. Excludes any recreational activity within the meaning of residential activity [QLDP p D-9].

136 NZS 6807 para 4.1.1.

137 *McIntyre v Christchurch City Council* [1996] NZRMA 289.

138 *Dome Valley District Residents Society Incorporated v Rodney District Council* A099/07.

139 *Dome Valley District Residents Society Inc v Rodney District Council* [2008] 3 NZLR 821 (HC).

[93] For Skyline Mr Todd submitted that the requirement to protect natural quiet values, contained within BLRMP Policy 12.1.1(7), applies principally to such parts of the reserve as actually exhibit such values. The Skyline case attempted to differentiate that part of the Ben Lomond Recreation Reserve containing the helipad as the location of tourism-based activities characterised by facility developments, high use, private commercial operations and primarily visitor use and having limited natural quiet values during the day time, which is the time that the helipad is proposed to be operational[140]. He said that the area had those characteristics at the time that the BLRMP was drafted[141], and contrast the site with the remainder of the reserve (which contains hundreds of hectares of land) which is truly rural in nature[142].

[94] Mr Goodwin said he had taken the reference to natural quiet values in the BLRMP's Policy 12.1.1(7) into account when he had recommended a 65 dBA limit based on a commercial activity[143]. He explained in his evidence that the concept of natural quiet there is not necessarily what could be implied by the words in another location[144]. Natural quiet barely exists on the site during daytime because of anthropogenic noise in the Queenstown general basin area, plus the range of activities being conducted in that area. He said that there is an almost omnipresent sound of aviation somewhere in the area. He said he differentiated between natural quiet, meaning basically an absence of anthropogenic sounds and other sounds.[145] In terms of the main noise source where the ZipTrek tree house where the tours commence – he said there are luges, sleds on the track and screaming of people on the luge or on the zip lines.[146] Mr Goodwin also said – "it's hard to get a moment of peace and quiet anywhere in Queenstown or near it."[147]

[95] Mr Day did not agree. The cross-examination went:[148]

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140 Transcript Mr Goodwin p 60 lines 2-19; Mr Brown p 211 lines 30-213 line 19.
141 Transcript Mr Goodwin p 60 lines 2-19; Mr Brown p 212 lines 25-213 line 10.
142 Transcript p 211, lines 6-25.
143 Transcript p 59, lines 24-33.
144 Transcript, p 60, lines 10-30.
145 Transcript, p 62, lines 10 – 19.
146 Transcript, p 62, lines 3 – 11.
147 Transcript, p 63, lines 31 – 32.
148 Transcript, p 241, lines 7 – 24.

Q. Can you explain the difference between ambient noise without helicopters and with helicopters in terms of the reserve rather than what the activity is described as?

A. ... At this site, from my brief experience of a couple of visits up there, the ambient noise level, although it's busy ...it is still a very quiet area. There's a hum from the gondola and the clickety click as it goes over. There's the occasional whoosh of a luge heading on down and there's peoples talking. The mountain bikers don't make a lot of noise then there's occasional zip as the guys go on the zip and an occasional holler but it's basically people having fun in a recreational reserve and general chatter and in amongst that ambient then there's this really significant event that goes well above that.

Q. Which is?

A. The helicopter.

[96] This is a matter of fact and degree, but we prefer the evidence of Mr Day. The character of the reserve changes markedly once one enters under the canopy of Douglas-firs a few metres from the helipad.

Conditions

[97] The proposed conditions allow up to fifteen flights on one day per calendar week. The planners disagreed over the number of flights per day that should be consented: Mr Dent favoured 8 flights per day, Mr Brown preferred 4 flights per day and Mr Hovell considered there should be no flights at all. They did agree with the proposed maximum annual number of flights being 3,160 with a calendar week maximum of 63[149]. This is odd in that it corresponds to 8 flights on six days and 15 flights on one day each week when Mr Brown wanted four flights a day and Mr Hovell no flights.

[98] If there are to be any flights – and we leave that to the evaluation later – then the planners agreed that there should be no more than two flights in any 15 minute period with the exception that on five occasions each year there could, with stated exceptions, be three flights within a 15 minute period[150]. We accept the exception is reasonable as it occurs within a maximum daily limit, is only on five occasions a year and is subject to advising Ziptrek at least 48 hours beforehand (but not the use of averaging referred to in NZS 6807:1994 and as put forward by Mr Goodwin[151] to allow a large increase in flights on one day a week, for reasons we give later).

149 S T Dent, J A Brown and K J Hovell Joint Witness Statement para 76 [Exhibit 5.1].

150 S T Dent, J A Brown and K J Hovell Joint Witness Statement para 76 item 3 [Exhibit 5.1].

150 V C Goodwin evidence-in-chief para 115 [Environment Court document 4].

[99] Should consent be granted, a condition will require the formulation and approval of and adherence to a noise management plan. The proposed plan provided by Mr Dent[152] is a starting point. It will need to be modified to reflect any set of conditions imposed on a consent. The management plan provisions also require considerable improvement to be certain, clear and enforceable as we pointed out at the hearing.

4. Predicting the effects of the activity on safety

4.1 The RMA's approach to risks

[100] The word "effect" is defined (in section 3 of the Act) as including: "... (f) Any potential effect of low probability which has a high potential impact". We adopt the observations of the court in *Long Bay-Okura Great Park Society Inc v North Shore City Council*[153] about section 3(f):

> The conjunction of 'low probability' and 'high potential impact' strongly suggests the concept of risk because the relationship between probabilities of an effect and its consequences or costs is incorporated in the definition of 'risk'. The relationship can be expressed as a simple product:
>
> Risk = Probability of an effect X Cost of consequences.
>
> So the RMA requires local authorities to examine both the probability of an effect and its consequences or costs (i.e. the risk). ... Rather than describing the evaluation of probabilities as "fact-finding", it is preferable in our view to describe it as risk assessment. That follows quite neatly from the definition of 'effect' in section 3. It is also, as we have seen, appropriate under section 32 of the RMA with its reference to risk.
> [Underlining added].

[101] That relationship was, in effect, adopted by the expert advising the Council, Mr A V Shelley. He applied the Australian Standard/New Zealand Standard ISO 31000:2009 *Risk Management – Principles and Guidelines* ("ISO 31000") which sets out "generic guidelines on risk management"[154]. The essential elements of the process are first to establish the context of the assessment and the objectives in issue[155]; second to identify

152 S T Dent rebuttal evidence Attachment C [Environment Court document 5A].
153 *Long Bay-Okura Great Park Society Inc v North Shore City Council* Decision No. A078/2008, at [45] and]46].
154 ISO 31000 para 1 [p.1].
155 ISO 31000 para 5.3.1 [p.15].

the risk, in terms of the probability of an effect in relations to the objectives; third to analyse the cost of the consequences of the effect; fourth to evaluate the risk, which involves "making decisions, based on the outcomes of risk analysis, about which risks need treatment and the priority for treatment implementation"[156]; and fifth to treat the risk which "involves the selection of one or more options for modifying risks, and modifying those options"[157].

[102] ISO 31000 is a systematic elaboration of the approach which is, or should be, used by a consent authority when considering the potential effects of an application for a resource consent. The context is the "environment" as defined in section 2 of the RMA. Defining the context is a fact-finding and predictive exercise in describing the existing setting of the proposal and the reasonably foreseeable changes to it. The relevant objectives are usually those set out in the controlling district plan and those in any higher order instrument (e.g. national policy statement or regional plan) unless the latter have already been sufficiently "particularised"[158] in the district plan. Some fundamental objectives such as minimising injuries or death to humans are often not expressed directly because they are so obvious. Only when the environment has been identified and the objectives ascertained can the predictions of risk be made.

[103] The risk assessment process described in ISO 31000 includes necessary reiterations of predictive assessments in the light of possible remedial or mitigating actions[159]. As Mr Shelley wrote[160]:

> This is necessarily an iterative process, with selected "options for modifying risks" (i.e., controls) altering the risk analysis and risk evaluation until it is judged that nothing further needs to be done to treat or modify the risks.

[104] The final step for the consent authority is to assess all the risks, together with the other considerations identified in section 104 and/or Part 2 of the Act, and to decide where the public interest lies. We evaluate those matters in Part 5 of this decision.

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156 ISO 31000 para 5.4.4 [p 18].
157 ISO 31000 para 5.5.1 [p18].
158 *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38; [2014] 1 NZLR 593; [2014] NZRMA 195; (2014) 17 ELRNZ 442.
159 ISO 31000 para 5.1 [Environment Court document 3A].
160 A V Shelley evidence-in-chief Attachment "A" p 20 [Environment Court document 7].

4.2 The risks in this proceeding

[105] There are three reports from the aviation expert called by the Council, Mr Shelley:

(a) the Ben Lomond Helipad Safety Review[161] dated 25 August 2014 (this is "the first ASMS Report" identified earlier);

(b) application of Helicopter Accident Statistics to the Risk Analysis of the Ben Lomond Helipad dated 19 February 2015[162] ("the second ASMS Report"); and

(c) Risk Analysis of Helicopter and Paraglider Interactions at the Ben Lomond Helipad also dated 19 February 2015[163] ("the third ASMS Report").

In addition there are primary[164], rebuttal[165] and two statements of supplementary[166] evidence from Mr Shelley. There is also primary[167] evidence and a further report[168] dated 27 February 2015 from Ziptrek's aviation safety expert Mr Bermingham.

[106] In the first ASMS Review[169], Mr Shelley identified the sources of adverse effects on safety and their potential consequences as follows[170]:

Table 7: Identified Risks

Source of Risk	**Potential Consequence**
People in the Vicinity	
Pedestrian v Helicopter	Death, serious injuries
Dust and stones blown by rotor wash	Dust in eyes, minor injury
Noise	Damage hearing

161 A V Shelley evidence-in-chief Attachment "A" [Environment Court document 7].
162 A V Shelley Attachment to First Supplementary Statement dated 19 February 2015 [Environment Court document 22].
163 A V Shelley Attachment to First Supplementary Statement dated 19 February 2015 [Environment Court document 22].
164 A V Shelley evidence-in-chief [Environment Court document 7].
165 A V Shelley rebuttal [Environment Court document 7A].
166 A V Shelley Supplementary Statements dated 19 February 2015 and dated 27 April 2015 [Environment Court documents 22 and 25].
167 G Bermingham evidence-in-chief [Environment Court document 9].
168 "Consideration of Helicopter/Paraglide Risk …" [Environment Court document 23].
169 Ben Lomond Helipad Safety Review, Aviation Safety Management Systems, dated 25 August 2014 [Attached to Environment Court document 7].
170 A V Shelley evidence-in-chief Attachment "A": first ASMS Report, Table 7 [Environment Court document 7].

Helicopter crash	Death or serious injury to bystanders
Helicopter Operations	
Forced Landing, all causes	Collision with barriers or ground, causing death or injury
Loss of tail rotor	Helicopter spins on axis on landing, causing potential collision with any nearby people or objects
Noise – effect on marshals (if any)	Damage to hearing
Ice – people on helipad	Passenger or crew slips when on helipad; potential sprained ankle, sore knee, broken wrist
Emergency – fire	Death, serious injuries, minor injuries
Neighbouring Activities	
Effect of noise on Ziptrek operation	Inability for Ziptrek guides to communicate, interrupting safety briefing; participants unaware of safety requirements; possible falls from height – death, serious injury; severe injury to hands (e.g. crushed or severed finger)
Paragliders in vicinity	Collision between Paraglider vs Helicopter, causing death or serious injury to paraglider and potentially helicopter pilot and passengers
Luge	In the event of a helicopter crash, potentially fast-moving debris on the luge track causing injuries of varying severity or death

[107] As a preliminary assessment Mr Shelley used what he termed a 'pragmatic' health and safety approach to suggest controls that could be implemented to reduce or eliminate the above sources of risk (while acknowledging their deficiencies). He then applied risk assessment approaches based not on ISO 31000 but – on two more – detailed documents, the "Navigatus Aircare Risk Matrix" and the "Woodruff Iso-Risk Matrix". The former uses six levels of probability of occurrence and seven levels of consequence leading to a 42 celled matrix. Each cell is assigned one of six different levels of risk ranging from "very low" to "extreme". The Woodruff approach contains three levels of risk with "tolerable" being a risk between 1 in 10^3 and 1 in 10^6 fatal injuries to individuals per annum (this is the United Kingdom Health and Safety

Executive's definition of tolerable risk[171]) . The set of controls to reduce the identified risks that emerged was similar to but more detailed than those the health and safety approach produced.

[108] The risks identified in Mr Shelley's Table 7 can more conveniently be grouped into three as follows: the risks associated with the operation of the helipad, interaction with paragliders, and safety issues arising out of helicopter noise. We consider the first two in the next two sections of this decision. We have already discussed the direct noise effects of helicopters in part 3 of this decision. We consider the indirect safety aspects of that noise in our evaluation in part 5.

4.3 Effects of operation of the helipad

[109] In considering these risks we first outline Mr Shelley's two approaches and then the criticisms of them by other parties.

Health and Safety Approach

[110] Having observed two helicopter landings at the helipad Mr Shelley listed a range of hazards present at the helipad[172]. These included those in his Table 7 (listed above) together with the site of the helipad and its dimensions and problems for the pilot arising from sun strike and wind. For each hazard a control was suggested which in most cases would minimise the hazard, in two cases (dust and stones and helipad dimensions) eliminate it, and in two cases (helicopter v person and interaction with paragliders) isolate the hazard[173].

[111] Many of the suggested controls are included in the consent conditions proposed by the planners in their Joint Statement[174] and summarised earlier[175]. Further changes include:

- Sealing of the area adjacent to the helipad to prevent dirt and stones being thrown by the rotor down wash

171 First ASMS Report p 21 [Attached to Environment Court document 7].
172 First ASMS Report Section 4.2 [Attached to Environment Court document 7].
173 First ASMS Report pp 15 and 16 [Attached to Environment Court document 7].
174 Exhibit 5.1.
175 See Part 1.3 of this decision.

- Installation of further helimesh on the south side of the helipad to protect against falls down the cliff face and on the north side to protect the luge track
- Extension of the helipad 3 metres to the east.

We see these conditions as appropriate to minimise some of the respective hazards occurring during operation of the helipad. Still of concern are possible interactions between the helicopter and people and the proposed single approach flight path.

[112] A safety fence, built consistent with recommendations from Mr Shelley, has been constructed between the helipad and the pedestrian/mountain bike pathways. This will serve to isolate the foot and bicycle traffic from the helipad and provide a safety area for the helicopter. The Civil Aviation Authority advisory circular (AC 139-8) suggests such a fence should, based on the AS350 B2 helicopter expected to use the helipad, be 12.94 metres from the touchdown marking ("the H") so as to provide a safety area for the helicopter. As shown on the updated site plan[176] the new fence is closer than this to the H both to the north and west and thus does not meet the AC139-8 recommendation. It does meet the recommended separation distance between the touchdown marking and any solid object.

[113] We have recorded that the circular AC139-8 states "ideally there should be two approaches 180° apart", but that in this case there is only one viable flight path. AC139-8 reflects the provisions of *The Convention on International Civil Aviation, Annex 14, Volume II – Heliports"* as it was prior to November 2013. An amendment to this document effective from November 2103 removed the recommendation for two flight paths[177]. This reduces our concern over this issue.

[114] It is Mr Shelley's contention that, in accord with Australian guidance, the reduced safety area and the single flight path can both be accepted if appropriate operational controls are implemented[178]. He provides a suggested list which he believes should be finalised in conjunction with the chief pilot for Skyline and recorded in the NZ

176 Paterson Pitts Group plan "Helipad Extension and Skyline Access", Rev. G, dated 13 February 2015.
177 A V Shelley Rebuttal Evidence para 28(b) [Environment Court document 7A].
178 First ASMS Report pp 14-19 [Attached to Environment Court document 7].

Aviation Information Publication ("NZAIP"). This includes limiting landings to wind conditions which are suited to the single flight path and providing ground (or at least gondola) transport when other wind conditions are present. We see this as an appropriate approach. Any consent granted from these proceedings will include a condition to ensure such a list is compiled and published in the NZAIP.

[115] In addition to those conditions we see the presence of a marshal at the helipad during each helicopter landing and takeoff as being necessary. Duties of a marshal would include ensuring the gate in the safety fence remains closed particularly when a landing is expected, controlling the movements of disembarking passengers, and alerting the helicopter pilot to the presence of any paragliders. We believe this would be better achieved by radio contact between the marshall and the pilot.

Risk Assessment Approach

[116] In his risk analysis assessment Mr Shelley assumed 550,000 people-movements per year past the helipad, 3160 landings per year at the pad and that Ziptrek has 30,000 people-movements per year. He also assumed that all helicopter/people interactions result in fatalities thus overstating the associated risk[179].

[117] His first analysis assumed conditions on the helipad to be those of 2014. This led to an assessment under the Navigatus matrix which showed 6 of the 9 risks considered were extreme or very high. The Woodruff matrix suggested only the noise effect on marshals was unacceptable[180]. Based on these results Mr Shelley proposed a series of control measures. His second risk assessment then assumed his proposed controls were all in place and effective. In this case the Navigatus matrix suggested the risks of a helicopter crash and of fire were very high with 4 other risk types rated high. Under the Woodruff approach all risks are rated as acceptable[181].

[118] To put these results in context Mr Shelley applied the Navigatus matrix to the risk of death of a driver or passenger on a 100km car journey and then for a population of 550,000 people. The former was rated as high and the latter as extreme. Application

179 First ASMS Report pp 23 and 29 [Attached to Environment Court document 7].
180 First ASMS Report p 36 [Attached to Environment Court document 7].
181 First ASMS Report p 42 [Attached to Environment Court document 7].

of the Woodruff matrix ranked both risks as acceptable which, in Mr Shelley's view, is "more reflective of societal views"[182].

Criticisms from other parties

[119] For ZJV Mr Bermingham, a risk management consultant, prepared evidence on the risks associated with helicopter operations at Bobs Peak. Having visited the helipad he noted, in addition to the hazards discussed by Mr Shelley, a lack of appropriate signage for visitors not intending to use the helicopter service. He concluded the helipad does not comply with the suggestions of the Advisory Circular and does not meet contemporary expectations for public safety[183].

[120] He suggested other locations for the helipad should have been considered but offered no view as to where they might be. No alternative location was suggested by any party. Mr Shelley observed that any other site would necessarily be higher up Bobs Peak or north of the Skyline complex. He stated there are no options in these locations in particular because such a location would mean flying over the luge tracks and would increase the likelihood of interactions with paragliders. For these reasons Mr Shelley preferred the present location for a helipad at Bobs Peak[184]. We accept Mr Shelley's view.

[121] Mr Bermingham believed a formal risk assessment with clear acceptance criteria such as compliance with the Advisory Circular in so far as is practicable, must underlie any future changes to the helipad[185]. He did not undertake such an assessment but appended to his evidence a detailed critique of Mr Shelley's assessment as set out in the first ASMS Report. In response to a request from the court Mr Bermingham prepared a report[186] dated 27 February 2015 ("the Bermingham Report") which provided advice to the court on risk management in the context of helicopter operation. This included multiple fatality accident risks, helicopter/paraglider interaction and helipad risk management. Two approaches to helipad risk management were presented. The first was a quantitative approach in which a figure of 1 in 10^6 per year is said to be typically

182 First ASMS Report p 42 [Attached to Environment Court document 7].
183 G Bermingham, evidence-in-chief para 43 [Environment Court document 9].
184 A V Shelley rebuttal evidence para 17 [Environment Court document 7A].
185 G Bermingham, evidence-in-chief para 57 [Environment Court document 9].
186 G Bermingham report entitled "Consideration of helicopter/paraglide risk and other related matters" dated 27 February 2015 [Environment Court document 23].

quoted in general risk and safety literature as the boundary between potentially tolerable public risk and clearly acceptable public risk[187]. It seems, although it is not clear, that this refers to accidents per year. The second approach was qualitative and based on a "reasonably practical" standard. Reasonably practical is defined as "that is, or was, at a particular time reasonably able to be done in relation to ensuring health and safety taking into account and weighing up all relevant matters"[188]. This leads to a risk level that can be considered "as low as reasonably practicable" ("ALARP").

[122] Mr Bermingham illustrated this approach by considering nine scenarios ranging from "continue as is" through Mr Shelley's proposed controls to engineered solutions including raising the existing helipad and constructing a new pad on a different site. Each scenario was evaluated, within a table, as to its practicality, its compliance with the CAA guides and with the ALARP criterion. Mr Shelley's controls as set out in the first ASMS Report are shown as failing all three tests[189].

[123] While labelled "provisional" Mr Bermingham's table is useful in that it sets out ways in which the perceived deficiencies could be remedied. It is thus a guide to formulating conditions under which a consent might be granted. One such might be that the Final Approach and Take Off area ("the FATO") be "flat". Given the steep fall offs around the helicopter pad this would require significant engineering works. We consider the proposed installation of helimesh will sufficiently address this issue. The table records that a single approach/departure flight path is acceptable in accord with the most recent International Civil Aviation Organisation ("IACO") amendment[190] thus agreeing with Mr Shelley's observation recorded above.

Fire risk

[124] The first ASMS Report described[191] the consequences of a fire as burns or serious injuries and the risk of fire as "significant". The proposed methods of control were installation of a fire extinguisher on site (this is proposed in conditions) and "no smoking near the helipad". The report considered that the availability and use of the fire

187 Bermingham Report p 17 [Environment Court document 23].
188 Bermingham Report p 16 [Environment Court document 23].
189 Bermingham Report pp 20 and 21 [Environment Court document 23].
190 Bermingham Report p 21 [Environment Court document 23].
191 First ASMS Report Attachment "A" to A V Shelley evidence-in-chief [Environment Court document 7].

extinguisher would reduce the likelihood of damage by 80% which would be acceptable on the Woodruff scale but still very high on the Navigatus Risk Rating.

[125] In his closing submissions Dr Somerville QC referred to a *Mutual arrangement for fire control measures entered into by the respective Fire Authorities and other agencies pursuant to section 16 Forest and Rural Fires Act 1977* ("the Red Zone Plan")[192] – dated in 2011. An unsigned copy was produced to us without objection. This states[193]:

> The Skyline Sector involves the area immediately behind Queenstown Township up to the Skyline Gondola Complex and leading slopes up to Bowen Peak.
> The logistics required to ensure a safe evacuation of up to potentially 3000 people in the height of summer are fraught with difficulties.
> Given sufficient time, large numbers of people may be evacuated, but if a wild fire should originate within the safety perimeter lines, then this would not be possible.
> Experts predict that in the right conditions a fire originating at the bottom of the hill near the base gondola complex may reach the top complex within 4 minutes,
> **Evacuation Considerations**
> The great risk in this sector is the location of the Skyline and Gondola complex, plus recreationalists parapenting, Ziptrek, bungy jumping, mountain biking and walking.
> It is estimated that a good 3-4 hours is required to complete a safe evacuation in the peak of summer when up to 3000 people may be on the hill including other recreational activities such as the parapenting groups, bungy swing, luge riders, Ziptrek and public utilising; various tracks.

Mr Somerville submitted that this wider risk had not been adequately assessed so that the court should refuse the consents for lack of information.

[126] We accept that the risk of fire (from all causes) at the site is very serious and we ask whether a more detailed plan should be prepared than that in the Red Zone Plan. However, we consider the risk of fire caused by use of the helipad is much lower and has been assessed adequately for our purposes in the first ASMS Report.

4.4 Interaction with paragliders

Possibility of collisions

192 Environment Court document 24.
193 The Red Zone Plan at p 13 [Environment Court document 24].

[127] The first ASMS Report describes two possible incidents: a collision between a helicopter and a paraglider, and a loss of separation when the helicopter and the paraglider "come uncomfortably close". By assuming a number of paraglider flights per year and thus the number of flights during each helicopter movement together with an incident rate an expected number of incidents per year was calculated.

[128] Mr Hornby, President of the Southern Hang Gliding and Paragliding Club Inc., suggested, based on actual flight records, the number of paragliding flights per year comprised 5,500 recreational flights and 7-10,000 commercial flights[194]. The total of 15-16,000 is some eight times that assumed in the first ASMS Report. Using these increased flight numbers Mr Shelley recalculated the expected number of incidents per year for the proposed number of helicopter flights, namely, 3160 per year. He obtained a figure of 0.11 to 0.12 incidents per year[195]. On the Navigatus scale this is classed as improbable.

[129] This result incorporated two important assumptions. The first relies on information from Mr Bisset, a helicopter pilot and Operations Manager for the Applicant, who advised Mr Shelley that 5 years ago there were approximately 2 incidents per year[196] and that following discussions at that time between the helicopter operators and the paragliders regarding flight paths there have been no incidents. The second important assumption was that there will be a Memorandum of Understanding between Skyline Enterprises and the paragliders whereby the paragliders will keep clear of the heliport and thus the incident rate will reduce by a factor of 50 to 0.04 incidents per year. No justification is given for the assumed reduction factor of 50.

[130] Mr Shelley's analysis and its interpretation were criticised by the other parties through evidence, submissions and cross examination. They held the actual risk of incidents was much higher than that assumed by Mr Shelley and in particular the problems for paragliders created by wake turbulence from helicopters had not been addressed. Noting that the Bermingham report[197] addressed helicopter/paraglider

194 I Hornby evidence-in-chief para 17 [Environment Court document 15].
195 A V Shelley evidence-in-chief para 35 [Environment Court document 7].
196 First ASMS Report Section 5.5.12.2, p 35 [Attached to Environment Court document 7].
197 Bermingham Report [Environment Court document 23].

interaction including the problem of wake turbulence[198] the court requested[199] a report on these issues from Mr Shelley. His response was the third ASMS Report[200].

[131] The pilot of an aircraft (the definition of which includes a paraglider) must follow the rules set out in the Civil Aviation Rules Part 91. The primary rule is:[201]

All pilots of all aircraft must see and avoid other aircraft

Other relevant rules state that a helicopter must give way to a paraglider and a helicopter pilot must take account of wake turbulence[202].

[132] The practicality of the "see and avoid rule" was analysed by Mr Shelley by considering the distances at which a paraglider pilot will first hear and then see a helicopter. Based on measurements by Mr Goodwin (the acoustical witness for the Applicant) and United States based research of the noise level of an AS350 B2 helicopter as a function of separation distance Mr Shelley concludes a helicopter can be heard at distances of 6.1km at an elevation of 1500ft, and 4.9km at 1000ft elevation[203]. He records estimates by others based on scaled measurements of a DC3 aircraft that a helicopter will be seen first at distances ranging from 700m under poor viewing conditions to 2.6km under good viewing conditions whereas a paraglider will be first seen at distances ranging from 200m to 900m[204].

[133] These figures led Mr Shelley to conclude that for a worst case scenario (helicopter not seen or heard until the separation distance is 700m) the closest approach will be 46.8m (or 3.6 AS350 B2 rotor diameters). For the more likely scenario in which the corresponding separation distance is assumed to be 2km, the closest approach is 276m or 21.4 rotor diameters[205]. The CAA recommends a minimum separation distance of three rotor diameters from a helicopter in stationary hover or slow hover taxi and

198 Bermingham Report pp 3 to 14 [Environment Court document 23].
199 Minute dated 24 April 2015.
200 A V Shelley third ASMS Risk Analysis of Helicopter and Paraglider Interactions at the Ben Lomond Helipad, dated 19 February 2015 [Environment Court document 22B].
201 A V Shelley third ASMS Report p 3 [Environment Court document 22B].
202 A V Shelley third ASMS Report p3 [Environment Court document 22B].
203 A V Shelley third ASMS Report p 6 [Environment Court document 22B].
204 A V Shelley third ASMS Report Table 1 p 8 [Environment Court document 22B].
205 A V Shelley third ASMS Report p 9 [Environment Court document 22B].

suggests caution should be experienced when in the vicinity of a helicopter in forward flight[206]

[134] The above is actually a "hear, see and avoid" approach sometimes referred to as an "alerted see and avoid". This will occur in the G756 airspace not only because of the ability of paraglider pilots to hear a helicopter but also because all pilots will be aware of the possible presence of other aircraft in the air space. The Applicant's pilots will certainly be aware, and all paraglider pilots should be aware. The latter is by way of the Memorandum of Understanding dated 19 April 2013 ("MoU")[207] between Queenstown Air Traffic Services and The Southern Hang Gliding and Paragliding Club Inc. The MoU requires all accredited pilots to be familiar with its contents and the Club, in conjunction with the commercial operator Gforce Paragliding, to erect signage advising that only accredited pilots may use the G756 airspace. It also draws attention to the helicopter operations that occur predominantly to and from the Skyline Lodge within the G756 airspace.

[135] To test his calculated results Mr Shelley sought written answers[208] to questions from two experienced paraglider pilots both of whom work for Gforce paragliding in Queenstown. Mr G Taylor is the Managing Director with 15 years piloting experience and Mr D Eller is the training Manager with 20 years piloting experience. Their responses suggested to Mr Shelley that his "more likely" scenario was a "reasonable approximation to the situation that prevails in G756"[209]. He further tested his calculated results by referring to statistics on paraglider accidents and incidents[210]. New Zealand data from 2000 to 2015, Australian data from 1993 to 2015 and German data for the period 1997 to 1999 showed no interactions between a paraglider and a helicopter. The United States data showed one "near mid-air collision" after dark which is not relevant in this case. It was Mr Shelley's view that this statistical data is consistent with his model and calculations from which he concludes there is very little interaction between paragliders and helicopters[211]. His assessment of the risk of a collision between a paraglider and a helicopter "while theoretically being some positive number greater than

206 A V Shelley third ASMS Report p 21 [Environment Court document 22B].
207 Attached to I Hornby evidence-in-chief [Environment Court document 15].
208 A V Shelley third ASMS Report, Appendices A and B [Environment Court document 22].
209 A V Shelley third ASMS Report p 10 [Environment Court document 22].
210 A V Shelley third ASMS Report Section 3 [Environment Court document 22].
211 A V Shelley third ASMS Report p 17 [Environment Court document 22A].

zero, is so low as to be essentially zero". In terms of the Woodruff matrix the risk is acceptable and thus there is no need to implement the ALARP procedure[212].

Effects of wake turbulence

[136] Given the level of air disturbance caused by a helicopter rotor and the "soft wing" nature of a paraglider we agree with Mr Bermingham that[213] "the potential for helicopter wake to cause paraglider canopy collapse is self-evidently a credible event that must be considered". In his investigation of the effects of wake turbulence Mr Bermingham spoke with a number of people with appropriate expertise[214] and consulted published reports on helicopter wake turbulence[215]. One of those interviewed reported he has heard of an incident in the United States in which a helicopter flew over a paraglider causing canopy collapse and resulting in the pilot becoming a paraplegic[216]. No details are given as to when this event occurred (night or day, or how long ago) or if any special circumstances were involved e.g. was it in uncontrolled airspace (as in G756)? Mr Bermingham refers to two other incidents in which canopy collapse occurred (one noted in a blog, the other in a paraglider web site) but he gives no indication as to location, timing or outcome for either[217].

[137] On the basis of his investigations Mr Bermingham states that wake turbulence is a very real threat that should be carefully managed by separation and possibly operational rules whenever helicopters and paragliders are expected to be routinely operating in the same location[218]. We agree and see the establishment of an agreed set of rules by the paraglider groups and Skyline would be beneficial for all parties flying at Bobs Peak.

[138] In his written response to Mr Shelley's questions Mr Eller replied he had had many opportunities to fly in very close proximity to helicopters during various filming jobs. He notes one benign event when he was perhaps 20m from the helicopter and experienced turbulence but could not discern whether it was wake turbulence or

212 AV Shelley Supplementary Evidence paras 19 and 20 [Environment Court document 22].
213 Bermingham Report p 6 [Environment Court document 23].
214 Bermingham Report pp 4 and 5 [Environment Court document 23].
215 Bermingham Report p 8 [Environment Court document 23].
216 Bermingham Report p 6 [Environment Court document 23].
217 Bermingham Report p 8 [Environment Court document 23].
218 Bermingham Report p 11 [Environment Court document 23].

turbulence generated by an approaching front[219]. Mr Taylor's answer to this question was that he had flown close to helicopters on multiple occasions in the G756 airspace with no adverse effect. In response to another question he stated "I have flown in G756 airspace for 15 years. I have never experienced any wake turbulence from helicopters"[220].

[139] We are left with the uncontested evidence of Mr Shelley that in fact there have been no wake turbulence events in the G756 airspace at Bobs Peak in recent years. In any case where there are no observed events in a given period, the binomial and the Poisson[221] distributions both predict the maximum expected number of events is 3. With no observed wake turbulence events in the last 10 years in G756 airspace the maximum expected number of events per year is 0.3 irrespective of the number of helicopter and paraglider flights per year. In Mr Shelley's view, for reasons he states, it is reasonable to assume a value of 0.15 for the expected number of wake turbulence events per year[222]. In the ten year period referred to there were, we recall, on average 1074 helicopter flights per year and 15,500 paraglider flights per year.

[140] Mr Shelley scales the value of 0.15 up by the ratio of the proposed number of helicopter flights per year to the number of helicopter flights per year that have occurred (3160/1074) to find the expected number of wake turbulence events per year under the proposed flight numbers is 0.44. Thus less than 1 paraglider flight every two years might be expected to be affected by wake turbulence from a helicopter[223]. This is in accord with Mr Bermingham's conclusion[224] "That for whatever reason only a few pilots experience significant turbulence events." He attributes this to there being a general understanding between Skyline and the paraglider groups of how each other operates[225].

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219 A V Shelley third ASMS Report Appendix B Answer to question 13 [Environment Court document 22B].

220 A V Shelley third ASMS Report, Appendix A, Answers to questions 13 and 8 [Environment Court document 22B].

221 As referred to in the first ASMS Report at p 28 – Attachment "A" to A V Shelley evidence-in-chief [Environment Court document 7].

222 A V Shelley third ASMS Report pp 22 and 23 [Environment Court document 22].

223 A V Shelley third ASMS Report p 23 [Environment Court document 22].

224 Bermingham Report p 8 [Environment Court document 23].

225 Bermingham Report p 10 [Environment Court document 23].

[141] In view of Mr Taylor's and Mr Eller's comments on the training paraglider pilots undergo with respect to dealing with air turbulence[226], it is unreasonable to assume that all incidents have serious consequences including fatalities. It is Mr Shelley's estimate that fewer than 1 in 500 will result in unrecoverable canopy collapse and of those perhaps 1 in 20 will be fatal for the paraglider pilot[227]. Using these estimates, the expected number of fatal incidents becomes 0.000044 per year which for 15,500 paraglider flights per year a chance of less than 1 in 3.25×10^8 for each flight. This is within the acceptable range of risk within the Woodruff matrix (1 in 10^6) even if Mr Shelley's estimates with respect to fatal accidents are increased by a factor of 100.

4.5 Quantification of the risks

[142] Mr Shelley provided an economic analysis to show a net reduction in social cost arising from the introduction of his proposed controls. When quantified in dollar terms the social costs of the proposal with no controls and with the proposed controls can be estimated. The difference can be regarded as the social benefit of the controls. Excluding the benefit accruing to Ziptrek this is some $\$4.717 \times 10^6$ annually. This has a net present value of $\$64 \times 10^6$ over 20 years assuming a 4% post-tax real discount rate[228].

[143] Mr Shelley compared the annual social cost of the proposal with controls to that of each visitor travelling 100km as a car passenger to the helipad. The latter at $\$4.5 \times 10^6$ per year[229] being 10 times the $450,000 annual social cost of the proposal with controls. He concluded[230] "Consistent with the Woodruffe analysis, the social cost analysis indicates that the helipad presents an acceptable level of risk."

[144] Mr C Streat appearing for the Society introduced a document[231] concerning the "social cost of aviation accidents per seat hour". The figures within the report were derived from CAA data on incidents within New Zealand. As the results presented in the first ASMS Report were based, in part, on United States data the court asked Mr Shelley to consider the data in Mr Streat's document and present a further report.

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226 A V Shelley third ASMS Report p 23 [Environment Court document 22].
227 A V Shelley third ASMS Report p 24 [Environment Court document 22].
228 First ASMS Report p 44 [Attached to Environment Court document 7].
229 First ASMS Report foot note 23 p 46 [Attached to Environment Court document 7].
230 First ASMS Report p 46 [Attached to Environment Court document 7].
231 Exhibit 7.1.

[145] In the second ASMS Report Mr Shelley used the CAA data to derive a "long term social cost per seat hour" of $12.28 for the five year period 2009 - 2014. From this figure the expected period between accidents at the helipad is calculated to be 507.6 years[232]. The figure used in the first ASMS Report is 3.6 years (1/0.278)[233], between events expected to cause damage or injury in addition to death. With this revised figure Mr Shelley adjusts the risk assessment results of the first ASMS Report. For the case with all suggested controls in place and effective the Woodruff matrix shows all risks are acceptable except for the noise effect on the marshals which is shown as tolerable. Under the Navigatus matrix the risk of a helicopter crash reduces from "Very High" to "Low" and the risks of a forced landing and of loss of tail rotor both reduce from "High" to "Low". The other assessments are unchanged[234].

[146] Mr Shelley's conclusion was that "...the analysis in the [first] ASMS Report makes a number of conservative assumptions which has the effect of assuming risks to be much higher than broader statistics would suggest. As such, the analysis in the [first] ASMS Report should be treated with caution and used as an upper bound estimate of risk"[235].

5. Evaluation

5.1 Assessing the effects under the District Plan

[147] As a way of drawing together the relevant effects and their consequences, we now assess the proposed activities under the relevant assessment criteria[236] in Chapter 5 (Rural Areas) of the district plan. There is some repetition in the lists[237] so we will not consider them separately. Instead we will assess them under two broad headings – Amenity and Safety – since they seem to encapsulate all the relevant matters. The cumulative effects[238] of the activity at the helipad together with existing effects is considered at all points of the analysis.

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232 Second ASMS Report p 5 [Environment Court document 22].
233 First ASMS Report p 32 [Attached to Environment Court document 7].
234 Second ASMS Report p 7 [Environment Court document 22].
235 A V Shelley supplementary evidence dated 19 February 2015 para 9 [Environment Court document 22].
236 Rule 5.4.2.3 [QLDP p 5-31 et ff].
237 Rule 5.4.2.3 (xiv) – Commercial Recreation Activities – and (xvi) – Airports [QLDP pp 5-34 to 5-35 and 5-36 respectively].
238 Assessment criterion 5.4.2.3 xiv (b)(vi) [QLDP p 5-35].

Amenity

[148] The planning witnesses agreed that the proposed helicopter landing area's compatibility[239] with the surrounding area and the extent of its environmental effects on the pleasant use of the environment and quality of recreational experience had by people within the Recreation Reserve largely comes down to the effects of noise generated by the aircraft[240]. That noise is to be assessed[241] under NZS 6807:1994.

[149] Skyline's approach was based on two matters: that the site is in a "commercial" area in terms of Table 1 in NZS 6807, and second on an averaging component in the standard. Mr Goodwin's approach, accepted by Mr Dent, was that a 65 L_{dn} limit should be able to take advantage of any averaging and allow up to 15 flights potentially on 52 days per year. We consider Mr Goodwin's proposition may impose too much noise on Ziptrek and the other recreational users of the reserve, even had a 65 L_{dn} limit been appropriate. There is a major difference between 4 and 15 flights a day. In any case, we note that the averaging component would no doubt result in a different upper bound of flight numbers for the lower noise level that Mr Day's opinion was based on, although there was no evidence or argument on this point. In passing we note our acceptance of the closing submission for the appellant that the proposed resource consent conditions are too uncertain where there is an averaging of flights and there is not the ability for the QLDC and Ziptrek to monitor the use of the heliport on a daily basis. The key point is that whether we accept Skyline's position or ZJV's depends on which better achieves the objectives and policies of the district plan and section 16 RMA.

[150] There would not be any loss of privacy or sense of remoteness or isolation[242], given the buildings and activities within the surrounding area[243].

[151] As for the character of the site and surrounding area, we agree with the planning witness for Ziptrek, Mr Brown, that the rural zone in this location is not a "low–density rural environment". He wrote[244]:

239 Assessment matter (for airports) 5.4.2.3(xvi) [QLDP p 5-36].
240 S T Dent, J A Brown and K J Hovell Joint Witness Statement para 49 [Exhibit 5.1].
241 Assessment matter (for airports) 5.4.2.3xvi(f) [QLDP p 5-36].
242 Assessment criterion 5.4.2.3 xiv (b)(ii) [QLDP p 5-35].
243 J A Brown evidence-in-chief para 3.23 [Environment Court document 10].
244 J A Brown evidence-in-chief para 3.22 [Environment Court document 10].

> The area around the helipad, with the Skyline building and related activities, and other activities, is not the same as a typical rural environment with wide areas of farmland, open space, and vegetation, a scattering of farm dwellings, other buildings, and so on.

However, the site is in a special area because of its location within the Ben Lomond Recreation Reserve.

[152] We need to assess the extent[245] to which recreational activity will adversely affect the range of recreational opportunities available on the quality of experience of people involved in that recreation. We accept Mr Brown's evidence[246] that too many movements would adversely affect the pleasant use and enjoyment of the surrounding environment and would adversely affect the quality of the experience by (amongst others) Ziptrek's clients.

[153] The planners – Messrs S T Dent, J A Brown and K J Hovell – agree[247] the proposed helicopter operation will have adverse effects by way of noise on the character of the surrounding area and on people enjoying recreational activities in the Ben Lomond reserve who have expectations of remoteness and solitude. The planners see these as being predominantly effects on amenity. With the exception of Mr Hovell they agree these effects can be mitigated by an appropriate daily limit on the number of flights[248].

[154] Mr Hovell considered Bob's Peak to not be 'totally sound free, but most sound in the locality to be from people speaking and having a fun time. In that context, the natural character and peace experienced is very high, and the tranquillity moderately high.' Mr Hovell considered the location of the helipad to be a relevant consideration and that there should be no helicopter landings on the site. Mr Hovell said that the gondola, and the road up to the Skyline, provided the necessary access for commercial recreation and activities at and around the Skyline.

[155] The planning witnesses also agreed that a potential adverse effect on amenity from the landing area, the noise generated and its proximity to the walking track includes

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245 Assessment matter 5.4.2.3: Assessment matter xiv (j) is nearly the same as assessment matter xvi (a)(ii) and (iii) for airports.

246 J A Brown evidence-in-chief para 3.28 [Environment Court document 10].

247 S T Dent, J A Brown and K J Hovell, Joint Witness Statement, Exhibit 5.1, para 41.

248 S T Dent, J A Brown and K J Hovell, Joint Witness Statement, Exhibit 5.1, para 43.

the possibility of intimidation which could prevent walkers passing by the helicopter landing area when in use.[249] Messrs Dent and Brown agreed that this is a minor adverse effect. Mr Hovell disagreed and considered that the physical presence of helicopters in close proximity to pathways and recreational activities has a significant adverse impact on the pleasant use of the environment and quality of the recreational experience had by people within the reserve. We prefer Mr Brown's evidence[250] "that the number of flights sought by the applicant would not be compatible with the character of the recreation reserve[251] – even in this more commercial part of the recreation reserve".

Safety

[156] Mr Dent relied on the expert safety advice and on the implementation of all recommended safety mechanisms secured by conditions for the movement of pedestrians and cyclists adjacent to the helicopter landing area. He also relied on the communication provisions within the helicopter noise management plan to maintain communication with the paragliding community on safety and operational matters of sharing the airspace. On this basis he considered the proposal to be consistent with the Open Space objectives and policies[252].

[157] There is disagreement[253] about the safety risk arising from the proximity of helicopters landing and taking off to the path used by pedestrians and cyclists and the proximity to the luge track. Mr Bermingham highlights wider risk concerns, and he[254] and Mr Shelley[255] agree that the existing and proposed modifications to the helipad will breach the *Civil Aviation Authority Advisory Circular 139-8* guidelines.

[158] We find that the location and operation of the helipad in relation to other nearby activities (including walking and mountain biking) is compromising levels of public safety[256]. Conditions could deal with safety associated with the movement of pedestrians and cyclists adjacent to the helicopter landing area and the measures to maintain

249 S T Dent, J A Brown and K J Hovell Joint Witness Statement para 52[Exhibit 5.1].
250 J A Brown evidence-in-chief paras 3.15 and 3.26 [Environment Court document 10].
251 Assessment matter 5.4.2.3 xiv (d).
252 S T Dent evidence-in-chief pp 35-37 [Environment Court document 5].
253 J A Brown evidence-in-chief para 3.24 [Environment Court document 10].
254 G Bermingham evidence-in-chief para 46 [Environment Court document 9].
255 A V Shelley evidence-in-chief para 19 [Environment Court document 7].
256 Assessment matter 5.4.2.3 xiv (k) [QLDP p 5-35].

communication with the paragliding community on safety and operational matters of sharing the airspace.

5.2 Evaluation under the objectives and policies of the District Plan

[159] We prefer the summary of Mr Brown[257], generally supported by Mr Hovell[258]. Mr Brown wrote:

> (a) During a helicopter movement to and from the helipad, the noise of the helicopter is by far the "dominant" noise event in the local area.
>
> (b) Many helicopter movements would be incompatible with the character of the surrounding area and would adversely affect both the pleasant use and enjoyment of the surrounding environment by visitors and the quality of the experience of people partaking in the outdoor activities available in this part of the recreation reserve.
>
> (c) The effects of the helicopter movements on Ziptrek are at best annoying and at worst significant and adverse, and there is a significant adverse effect on the quality of the user's experience of Ziptrek.
>
> (d) The helipad does not comply with the relevant CAA guidelines on safety. Measures should be added to ensure compliance.

Open Space and Recreation: Objective 2 (Environmental Effects)

[160] We look first at Chapter 4.4 Open Space and Recreation of the district plan. Mr Dent and Mr Brown had a different position on the number of flights and their frequency that was needed to 'mitigate' significant adverse effects on environment or on the recreation opportunities available within the District (Objective 2 – Environmental Effects). Both took a similar approach to Policies (4.4) 2.1 and 2.4, and sought to 'mitigate' the adverse effects of commercial recreational activities on the natural character, peace and tranquillity of the District and on the range of recreational activities available in the District and the quality of the experience of people partaking of these opportunities. Similarly they sought to restrict the volume and location of noise associated with recreational activities to make it consistent with the level of amenity in the surrounding environment as required in Policy (4.4) 2.2.

[161] Mr Hovell was of the opinion that any noise from a helicopter landing at the site is far from consistent with the level of amenity anticipated in the surrounding

257 J A Brown evidence-in-chief para 3.30 [Environment Court document 10].
258 K J Hovell evidence-in-chief [Environment Court document 16].

environment under Policy (4.4) 2.2. He considered that noise and the physical presence of a helicopter landing nearby would be an unwelcome diversion, and significantly diminish the experience for those seeking to take in the views, walk or cycle near the helipad, or sit on the grass or at tables to eat. He suggested that the presence and movement of the helicopter would also discourage some people from walking or cycling past the helipad. In his view, allowing a range of passive and active recreational activities to establish within the immediate vicinity of the helipad has compromised the suitability of the site as a helipad. He did not consider what the applicant's witnesses described as the 'short term' nature of the landing and take-off as being an appropriate mitigating factor. Nor did he consider restrictions on flight numbers and frequency an appropriate response, as those present when a helicopter uses the landing pad have a reduced experience.

[162] Mr Hovell concluded it was necessary to have no heliport and no flights, appearing to adopt the standard of 'avoid' rather than 'mitigate' under Policies (4.4) 2.1 and 2.4.

[163] We are satisfied from the evidence, some of which was received after we heard from the planners, that our intention in terms of conditions of consent to secure noise and safety mitigation measures will ensure the proposal is consistent with the Open Space objectives and policies and particularly Policy 2.5. In addition the conditions will limit the potential for conflict between the different activities as required on the "effective use" front – Objective 3 and Policy 3.1.

Objective 3 – Effective Use

[164] Objective (4.4) 3 is to make effective use and functioning of open space and recreational areas in meeting the needs of the District's residents and visitors. The relevant policy is:

> 3.1 To recognise and avoid, remedy or mitigate conflicts between different types of recreational activities, whilst at the same time encouraging multiple use of public open space and recreational area wherever possible and practicable.

[165] The planning witnesses agreed that the proposed helicopter landing area has the potential to conflict with different types of recreational activities operating in the vicinity. Messrs Dent and Brown considered that there were measures proposed to mitigate the potential conflict arising from the noise emissions, but Mr Hovell did not consider the objective and policy would be met.

[166] The section also contains 4.4.4 Anticipated Environmental Results:

> (iii) Recreational activities which do not adversely affect the environment.

This would be a difficult environmental result to achieve.

Rural areas (Chapter 5 of the QLDP)

[167] It will be recalled that Chapter 5's Objective 3 seeks to avoid, remedy or mitigate adverse effects of activities on rural amenity, and that the relevant implementing policies are:

> 3.2 [To] Ensure a wide range of rural land uses and land management practices can be undertaken in the rural areas without increased potential for the loss of rural amenity values.
>
> 3.3 To avoid, remedy or mitigate adverse effects of activities located in rural areas.

Messrs Dent and Brown consider the adverse effects of noise on amenity can be appropriately mitigated through a daily limit on flights under these provisions, with Mr Hovell of the opinion that the activity should, but does not, avoid adverse effects on rural amenity.

[168] On balance, we accept Mr Brown's opinion on the appropriate daily limit.

5.3 Section 16 the "best practicable option" of the RMA

[169] In closing Dr Somerville submitted that the appropriate noise level should achieve the duty to *avoid unreasonable noise* in section16 RMA.

> **S16 Duty to avoid unreasonable noise**
>
> (1) Every occupier of land (including any premises and any coastal marine area), and every person carrying out an activity in, on, or under a water body or the coastal marine area, shall adopt the best practicable option to ensure that the emission of noise from that land or water does not exceed a reasonable level.

[170] He said that, when considering how best to mitigate the noise, the best practicable option (BPO) is relevant and provides guidance on the appropriate limit for flights. He submitted that the adverse effects from helicopters on the receiving environment, which includes Ziptrek's operation, mean that an appropriate condition mitigating the adverse effect on Ziptrek, which would meet the BPO test in the RMA, would be for a limit of four flights per day.[259]

[171] The definition of "best practicable option" is:[260]

> **best practicable option**, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—
>
> (a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and
>
> (b) the financial implications, and the effects on the environment, of that option when compared with other options; and
>
> (c) the current state of technical knowledge and the likelihood that the option can be successfully applied.

[172] Skyline countered in its submission that section 16 is intended to be a basis for enforcement or abatement proceedings not as a hurdle for resource consent applications, referring to the High Court in *Empire Entertainment Ltd v Ellzin Trust*[261]. There Justice Brewer wrote[262]:

> Whether … section [16] focuses on the duty to adopt the best practicable option or not, the clear intent of the section is to limit emissions of noise from land to reasonable levels.

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259 Dr R Somerville, closing submissions para 2.
260 RMA, section 2.
261 *Empire Entertainment Ltd v Ellzin Trust* [2010] NZRMA 525.
262 *Empire Entertainment Ltd v Ellzin Trust* [2010] NZRMA 525 (HC) at [41]-[43].

> [42] However, the section does not engage pre-emptively. Subsection (2), for example, provides:
>
> > (2) A national environmental standard, plan, or resource consents made or granted for the purposes of any of sections 9, 12, 13, 14, 15, 15A, and 15B may prescribe noise emission standards, and is not limited in its ability to do so by subsection (1).
>
> [43] I agree with the appellant's submission that by invoking the best practicable option test at the resource consent application stage in the way that it did, the Environment Court was effectively requiring the appellant to demonstrate that no better alternatives existed. That is not what s 16 is for. The duty imposed by s 16 applies to occupiers of land as they are, not what they might be. That is not to say that the existence of the s 16 duty will not guide the development of noise emission standards nor that those whose function it is to decide the applications for resource consents will not have regard to it.

[173] *Empire Entertainment's* rather confusing instruction appears to be that we may or should have regard to section 16 but must not use it to require an applicant to demonstrate that all alternatives/methods of controlling noise are no better. Despite its position relying on *Empire Entertainment*, Skyline conceded that a number of the noise related issues raised by Ziptrek are potentially relevant to the Court's consideration of the proposal under section 104 RMA.

Sensitivity of the receiving environment

[174] Dr Somerville submitted that, in relation to component (a) of the section 2 definition, the sensitivity of the receiving environment is addressed by reference to the reserve designation noise conditions and Policy 12.1.1(7) of the BLRMP.

[175] On the first point we were reminded that the description of a "recreation reserve" as per section 17(2)(c) of the Reserves Act 1977 is:

> … every recreation reserve shall be so administered under the appropriate provisions of this Act that –
>
> (c) 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.

This is complemented by the definition of 'amenity values' in the RMA as follows[263]:

[263] Section 2 RMA.

> **amenity values** means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes

[176] Dr Somerville submitted that the evidence is that there is an adverse effect on Ziptrek when it comes to operating its tours, and on the amenity of the reserve and its use for recreational activities[264]. He submitted that the issue of whether recreational activities are paid for or not is not relevant to whether there is an adverse effect on the use of the reserve for recreational purposes. We agree with that proposition.

[177] Dr Somerville submitted that the recreational reserve designation provisions provide guidance on noise levels that are commensurate to the amenity of the receiving environment.[265]

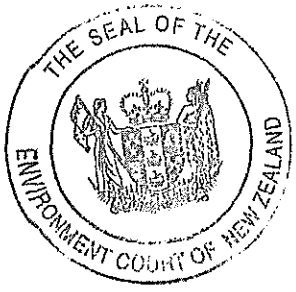
[178] We consider the BLRMP informs the sensitivity of the receiving environment with its reference to 'natural quiet values' in Policy 12.1.1(7). While we accept that the proposal is located in a busy part of the reserve, we find Mr Day's opinion compelling on the background noise associated with the range and high level of commercial recreational and recreational activities as involving 'natural quiet values' and the detrimental impact of the helicopter on those values.

Financial implications

[179] Dr Somerville submitted that there was no evidence of the financial implications to Skyline of not having the helipad or QLDC's landing fees or rental from the helipad but did not suggest this was an important omission in deciding the best practicable option in this case.

Technical knowledge and its application

[180] Dr Somerville relied on the Joint Witness Statement of the noise experts and referred to the different approaches taken by the two expert witnesses when using NZS



264 C W Day evidence-in-chief paras 6.1-6.3 [Environment Court document 11].

265 Condition 9 of Part G (Recreation Reserves) states the following (at p A1-71 to A1-72 of Appendix A of the District Plan).

6807 as a guideline. He emphasised that NZS 6807 does not specifically refer to the receiving environment of a recreation reserve.

[181] Dr Somerville referred to a section in NZS 6807:1994 which is relevant to the best practicable option for reducing noise to a reasonable level:

> **A2.7 Movements may be restricted to a daily maximum**
>
> **CA2.7**
>
> Restriction on the daily number of movements, in conjunction with restrictions on helicopter noise emission and flight operations, should achieve control of sound exposure. The maximum number of movements should be calculated considering the likely use of the helicopter landing area and the provisions of this Standard.

[182] In relation to the best practicable option, Mr Goodwin preferred to rely on a different method:[266]

> Mitigation measures to meet the statutory duty include the flights paths chosen in the area of jurisdiction near the helipad, "low noise signature" helicopter types, hours of operation and noise mitigation measures such as adoption of "fly neighbourly" practices which will avoid or mitigate these potential effects and an overall management plan to actively manage compliance with any conditions of consent, to comply with s.16 and to also comply with the Reserve Management Plan provisions. This mitigation will be to an extent I consider is reasonable and within the guideline values for helicopter noise in NZS6807:1994 and its recommendations about noise management found in Appendix A of the standard.

We do not accept that as being the best practicable option to meet the statutory duty. Nor does his suggested number of flights adequately deal with the sensitivity of the receiving environment, even as a busy recreation reserve, to adverse noise effects. We prefer the evidence of Mr Day on the number of flights as establishing a reasonable noise level/best practicable option.

5.4 Overall Noise Consideration

[183] Table 1 of NZS 6807:1994 is of limited assistance. It does assist in clarifying that 65 L_{dn} is not the appropriate standard to evaluate the proposal against. However, it was

266 V C Goodwin evidence-in-chief para 129 [Environment Court document 4].

not fine grained enough to inform consideration of the factual situation in front of us for a recreational reserve and affected recreational activities of the nature involved.

[184] We note we are not bound to follow New Zealand Standards – *McIntyre v Christchurch City Council*[267]. We distinguish the case referred to by Mr Todd – *Dome Valley District Residents Society Incorporated v Rodney District Council*[268] (upheld by the High Court on appeal[269]) because that dealt with occupiers of residential zones and affected rural dwellings, thus making the standard relevant. It is too different to the facts of this case.

[185] Having said that, we certainly accept that L_{dn} is usually an appropriate measure for assessing helicopter noise. On the facts before us, we conclude that the noise limit we assess the application against should not be 65 dBA L_{dn}. That is too high a noise limit for a busy recreation reserve where not just Ziptrek but also people walking, cycling and taking in the view are affected.

[186] Mr Day said he would have gone with 55 dBA L_{dn} for a new helipad but in view of the historic activity level associated with the helicopter landing pad, he considered 60 dBA L_{dn} a reasonable response. He suggested that this reflected the noise level received by Ziptrek and other users, although we acknowledge that there was evidence (some of which involved estimates) from Skyline of a higher number of landings. This is of course a retrospective consent so there is also a question of how much weight should be given to past levels of activity.

[187] Mr Todd submitted that it should not be overlooked that the acoustic evidence of Mr Goodwin shows that the flights proposed would create sound exposure of 62.8 and not 65 and would be well below the commercial limits in NZS 6807. Further that the disturbance to Ziptrek caused by helicopter noise would be present for a very limited part of each operating day as it operates from 8 am to 7 pm in winter and to 10 pm in summer. We do not find that a compelling argument.

---

267 *McIntyre v Christchurch City Council* [1996] NZRMA 289.

268 *Done Valley District Residents Society Incorporated v Rodney District Council* Decision No. A99/07.

269 *Dome Valley District Residents Society Incorporated v Rodney District Council* [2008] 3 NZLR 821 (HC).

[188] We consider the references to 'natural quiet values' in the BLRMP are important and we do not accept the evidence or arguments for the applicant that sought to downplay the importance of that matter. We find that the receiving environment does have 'natural quiet values' and that the four daily flights provide the balance sought in Policy 12.1.1(7), taking into consideration the BLRMP overall.

[189] We do not accept the arguments made for no helicopter flights and no heliport as put forward by the Arthurs Point Protection Society. We have concluded that four flights a day is the 'best practicable option' and a reasonable level of noise in terms of section 16 of the RMA and that limit better achieves the objectives and policies of the District Plan.

5.5 Other matters (section 104(1)(c) RMA)

[190] We considered the policies in the BLRMP when assessing noise. We find that the noise impacts are such that it is necessary to deal with the number and frequency of flights under the RMA and to impose conditions on the resource consent, rather than rely on the licensing procedure under the Reserves Act.

[191] Because of its importance we repeat Policy (12.1.1) 7 of the BLRMP[270]:

> To limit helicopter landing on the reserves to ensure that a balance is achieved between meeting the demand for this tourism activity and protecting the reserves "natural quiet" values.

[192] For Skyline Mr Todd submitted that the proposal will give effect to the intended balance. The operation of eight and on occasion 15 flights per day will meet the demand for helicopter activity while the proposed conditions of consent will adequately protect the natural quiet values of the reserve. He also submitted that the above policy must be read in the context of the balance of the management plan.

[193] The planning witnesses agreed that the management plan specifically recognises and provides for helicopter landings at the proposed helicopter landing area.[271] Also that the effects of helicopters operating from this site is anticipated although a balance is

270 Policy (12.1.1) 7 [BLRMP p 41].
271 Joint Witness Statement dated 16 January 2015, para [17].

intended to be maintained with the 'natural quiet values' in the Recreation Reserve as detailed in the relevant provisions of the management plan. There are no specific limits on flights set in this document.

[194] The BLRMP was of course prepared in the context of an operational heliport which was assumed to have all the necessary approvals. For that reason we consider that the 'natural quiet values' referred to in Policy 12.1.1(7) does not require an absence of anthropogenic sounds and other sounds as Mr Goodwin suggested. The BLRMP was clearly not written around a noise environment that could be expected in a national park for example. We accept that the reserve is a busy reserve and there is the background noise. However, as Mr Day said, most of it is still a very quiet area. Most compelling was Mr Day's opinion[272] about the noise impact of the helicopter. We add to that our concerns about the effects of helicopter noise on safety briefings for ZJV's operations. Reducing the number of flights decreases the risk of an accident due to Ziptrekkers not hearing a briefing.

5.6 Council decision under section 290A

[195] The Council Commissioners' decision approved a maximum number of 15 flights per day, up to a maximum of 3160 flights per year, and 2 in any single 15 minute period. The revised application before the Court proposes to keep to a limit of 3,160 flights a year. Inside that limit, the applicant proposes that there be a maximum of 8 flights a day except that within any seven day period there may be up to 15 flights on any one day. For completeness we note that without the maximum the total could be 3,284 flights (2,920 for the 8 flights a day plus 364 for the additional 7 on 52 days per year). Under the regime approved in the Council Commissioners' decision the consent holder would need to choose when and how to manage flight numbers to keep them inside the yearly limit.

[196] Before us Skyline made several refinements to the application and to the consent conditions designed to better deal with potential adverse effects. We are also in a more informed position than the first instance decision maker was in having a significant amount of new evidence on the noise and safety issues and the benefit of cross examination of the witnesses. In view of these two factors, while we have had regard to

272 Transcript p 241 (quoted above).

the Council's decision, our decision is made on a different factual and predictive basis to that of the Council.

6. Result

Conclusion

[197] We conclude that a working noise limit of 60 dBA L_{dn} and a maximum of four flights per day is the appropriate one to apply after considering the above, with both requirements specified in the consent conditions. It is the noise limit and restriction that would deal adequately with the adverse effects, achieve the objectives and policies of the District Plan and is consistent with the policies in the BLRMP. It is also *sustainable management* of natural physical resources under Part 2 of the RMA.

[198] Limiting the number of flights on a consistent daily basis allows ZJV, as the most affected operator, to keep informally monitoring the operation of the helipad and to communicate with the consent authority rapidly if it sees a breach. A maximum number of flights of an Aerospatiale AS 350 B2 helicopter on a daily basis means there is no need for an annual maximum in the conditions.

[199] We would not allow an exception for 15 flights for one day in each consecutive seven day period, or indeed exceptions other than for emergencies including fire fighting. We do not agree with the justification, including its basis in averaging in the NZS 6807:1994, advanced by the applicant to support such a major increase in flight numbers once a week. The associated significant adverse noise effects are not acceptable, whether or not a weekly additional flight was to occur on a weekend, weekday or public holiday.

Consent Duration

[200] During the hearing we suggested that the consent duration might be a matter that should be looked at, given that a land use consent has an indefinite life unless a shorter life is specified in a consent. Ziptrek submitted that such a term could fit in with the review term of the BLRMP.

[201] Skyline considered this not necessary on the basis that the consent would contain a review condition, allowing a review of consent conditions in accordance with section

128 after a review of the BLRMP or after establishing a risk management plan in accordance with the BLRMP. Skyline also raised the cost of the process as being in excess of $100,000 and with significant cost for the other parties too. It said:

> It would be unreasonable and contrary to section 5 of the RMA to require the parties to be required [to] go through the whole process again within a short number of years, where there is an alternative and effective method of reviewing the consent conditions should it be necessary to do so.

Skyline submitted that it would promote sustainable management to allow the consent to endure for the term of Skyline's lease or any subsequent lease that it might obtain over its current premises or the helipad.

[202] We have considered that carefully. However, we do not accept that an indefinite consent term would promote sustainable management given the nature and extent of the activities that are already occurring in the vicinity of the heliport and the conflict potential. The tourism and recreational demands on the area are only going to grow. As Mr T A Yeo, the Executive Director of Ziptrek, pointed out there is a need for future planning to manage the different types of uses so they are compatible and to design the space so it is attractive to users[273].

[203] We observe that a review clause is somewhat limited in what it can achieve as any review could not negate the use of the consented heliport.

[204] A five year consent term has many advantages. The review of the BLRMP, with its public participation in the process would have been undertaken, and its subsequent implementation and priority actions undertaken. That time span would allow monitoring and consideration of what improvements might be able to be made in the general area. The BLRMP may contemplate changes to the pedestrian, cycling and other activities in the vicinity of the heliport that would assist in reducing the impact of the noise on recreational activities. Ziptrek was reluctant to contemplate alternative locations and the design of its Tree House, and ways of operating (e.g. conducting the briefing), but that position may change (although we are unable to require it). Monitoring during the

273 Transcript 248, lines 3-18.

consent term may indicate that the noise effects are not as anticipated in the evidence before us.

Consent Holder

[205] Dr Somerville submitted that the Court should consider whether it is more appropriate that the QLDC as administrator of the reserve under the Reserves Act manage the operation of the helipad, rather than Skyline. This is because of the mixture of uses in the vicinity of the helipad, and the location and layout of walkways and directional and interpretative signage. The QLDC is expected to embark on its priority actions, as set out in the management plan developed under section 43 of the Reserves Act.

[206] QLDC and Skyline submitted that Skyline is in a better position to manage and control the helipad and the surrounding area to meet the conditions proposed and any further conditions imposed by the Council as part of any review of the BLRMP.[274]

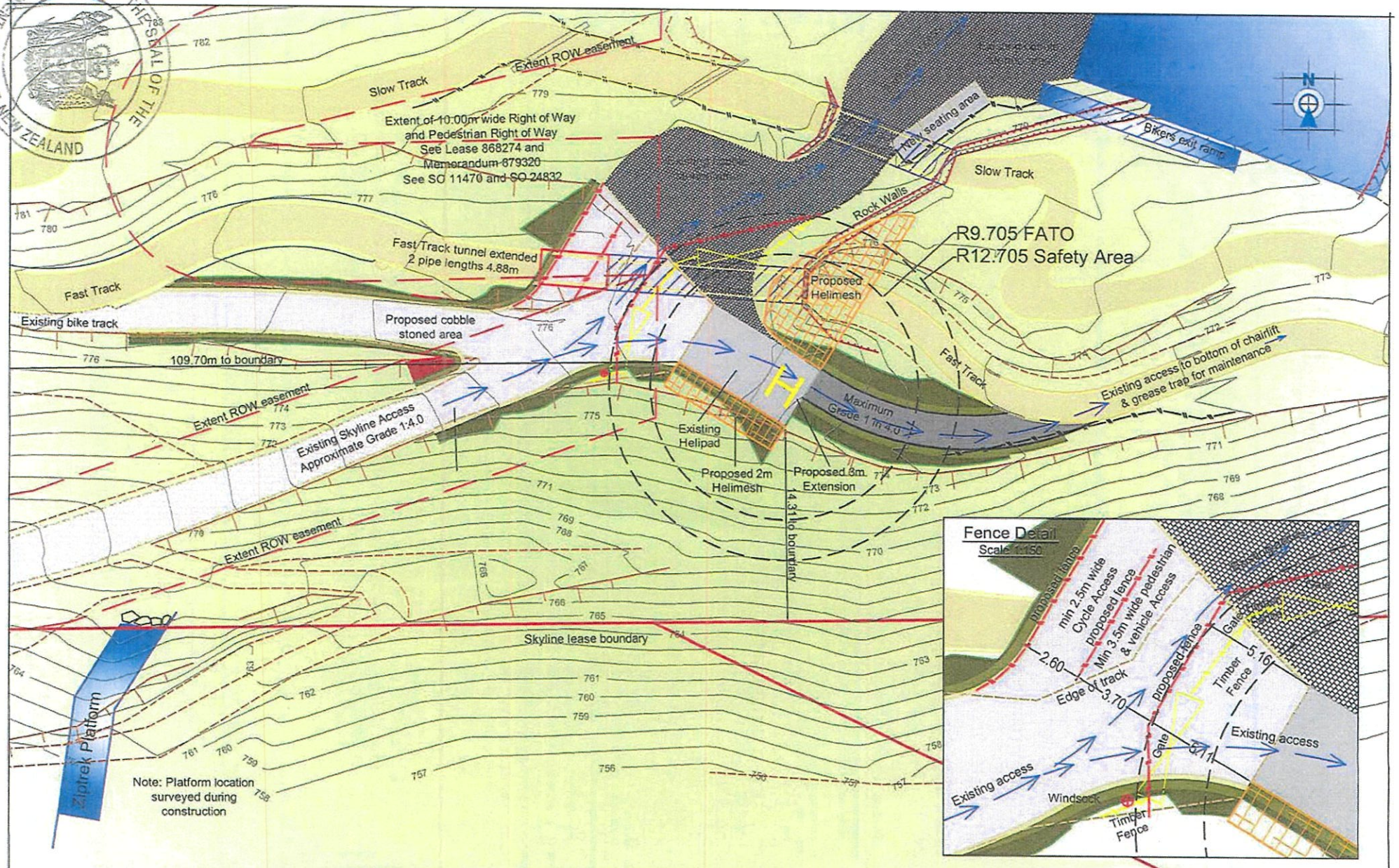
[207] We find no reason to require QLDC to be the consent holder or manage the operation at the helipad.

Conditions

[208] The conditions need to be revised in the light of the court's decision and submitted for the court's consideration. The revisions will need to amend the management plan, and to add conditions providing for:

(1) continuous radio contact between a marshal on the ground and the pilot of any helicopter proposing to land on or take off from the helipad; and
(2) consistent, clear and comprehensive signage to activities on the site;

274 Skyline Final Closing, para 52 [Environment Court document 29].



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HELIPAD EXTENSIONS
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Purpose/Drawing Title:
HELIPAD EXTENSION AND SKYLINE ACCESS

Surveyed by:		Original Size: A3	Scale: 1:250
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Drawn by:	sam sept11		
Checked by:			
Approved by:			
Job No: Q4115 - 51		Sheet No: 01	Revision No: G
			Date/Created: 13/02/2015

PLOT DATE: 13 February, 2015 - 4:15 PM BY: Sam McLeod

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(3) compilation of a list of operational controls to be published in the NZAIP.

For the court:

J R Jackson
Environment Judge

Jacksoj\Jud_Rule\d\ZJV (NZ) Ltd v QLDC – Skyline Enterprises Ltd

ATTACHMENTS

A: Helipad Extension and Skyline Access Plan Revision G, 13 February 2015.