

**BEFORE THE ENVIRONMENT COURT**

Decision No. [2012] NZEnvC 206

**IN THE MATTER** of the Resource Management Act 1991 (**the Act**) and of an application under section 149T of the Act

**BETWEEN** QUEENSTOWN AIRPORT  
CORPORATION LIMITED

(ENV-2011-WLG-41)

Applicant

Hearing: at Queenstown on 16-20 July, 23-26 July 2012  
at Christchurch on 30 and 31 July 2012

Court: Environment Judge J E Borthwick  
Environment Commissioner R M Dunlop  
Environment Commissioner D J Bunting

Appearances: D A Kirkpatrick and R Wolt for Queenstown Airport Corporation Ltd  
D A Nolan and M M E Wikaira for Air New Zealand Ltd  
J G A Winchester for Queenstown Lakes District Council (regulatory)  
J E Macdonald for Queenstown Lakes District Council (non-regulatory) – present on 16 July 2012  
Dr R J Somerville QC and J D Young for Remarkables Park Ltd

Date of Decision: 25 September 2012

Date of Issue: 25 September 2012

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**INTERIM DECISION OF THE ENVIRONMENT COURT**

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A: That part of the NOR required for instrument precision approach runway and Code D parallel taxiway is cancelled. The court reserves its decision on the balance of the NOR.

B: By **5 October 2012** QAC is to file and serve:



- (1) an amended Figure 1 to the NOR reducing the extent of the requirement to exclude provision for a instrument precision runway and Code D parallel taxiway and any land no longer required for carparking, circulation and landscaping.
- (2) proposed conditions for inclusion in Designation 2 which give effect to the court's decision at [200]. These are to require:
  - (a) the preparation of an integrated design and management plan which states:
    - (i) the landscape and visual amenity objectives for building and infrastructure design and location and outcomes in relation to:
      - landscape planting, staging and maintenance plan;
      - the management of signage;
      - management of stormwater (including if relevant earthworks, retention ponds and landscaping); and
      - the standards for an acceptable range of building materials, colour, tones and reflectivity.
    - (b) the proposed assessment matters for outline plan(s) of works.
- (3) subject to [E]:
  - (a) a condition for inclusion in Designation 2 restricting the use of the western access to entry only access;
  - (b) a cross-section for inclusion in Designation 2 of the proposed western access;
  - (c) a condition for inclusion in Designation 2 requiring QAC to form access connecting with Red Oaks Drive, in the event that Red Oaks Drive is extended to the boundary of the designation (yet to be confirmed) and to close the entrance to western access.
- (4) a condition that requires consideration at the outline plan of works stage of whether noise attenuation is required in addition to measures in the District Plan.



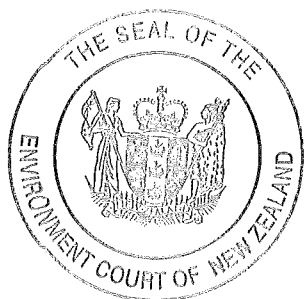
- (5) an additional purpose statement for Designation 2 (to be included in the District Plan) that land shown in amended Figure 1 is to be used for a general aviation/helicopter facility, and associated air and landside buildings, infrastructure and landscaping.
- (6) the extent of land not required for carparking, circulation and landscaping and whether land previously required for this purpose is to be cancelled in part is to be confirmed.
- C: QLDC (regulatory) is to file and serve a memorandum responding to QAC at [B] by **12 October 2012**.
- D: If any party takes a different position to QAC or QLDC (regulatory) then they are to file and serve a memorandum by **19 October 2012**. Further directions will then likely follow.
- E: Leave is reserved for the parties to call expert evidence addressing the management of traffic at the western access. If further evidence is to be called the parties are to file a memorandum by **19 October 2012** advising the court. The hearing will be reconvened on **7 December 2012** in Christchurch.
- F: The requirement for an outline plan of works is not waived under section 176A of the Act.

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## REASONS

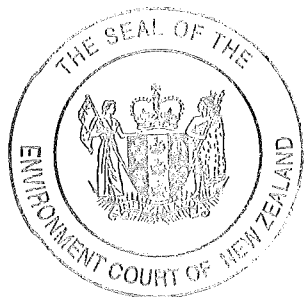
### Introduction

[1] This proceeding concerns Queenstown Airport Corporation Limited's notice of requirement to alter an existing designation in the Queenstown Lakes District Plan. The notice of requirement was referred to the Environment Court by the Minister for the Environment.

[2] Quite simply, the notice of requirement seeks to alter Designation 2 of the District Plan by extending the aerodrome at Queenstown Airport by 19.1 hectares. The activities enabled by Designation 2 are to remain the same.

[3] Queenstown Airport is owned by the Queenstown Lakes District Council and the Auckland International Airport Ltd.<sup>1</sup> It is one of the busiest airports in New Zealand, and is the country's largest regional airport. Each year, there are on average 40,000 aircraft movements and over 1 million scheduled and non-scheduled passenger movements through the Airport. The airport controllers handle upwards of 400 aircraft (domestic and international) movements per day, with growth in aircraft movements projected to increase over the next 25 years.

[4] To accommodate growth the existing passenger terminal and associated airside and landside facilities will be expanded. While the expansion of the passenger terminal and associated facilities can occur within the existing designation this will displace the general aviation from its present location.



<sup>1</sup> These companies own 75.1% and 24.9% of shares respectively.

[5] The notice of requirement facilitates the relocation of general aviation to enable the expansion of the passenger terminal and its associated facilities. The notice of requirement is also important, as it will determine the final location of the air noise boundary and outer control boundary that are the subject of Plan Change 35.

***Attached documents to this decision***

[6] Attached to this decision as Annexure 1 is a copy of a plan showing the subject land. While this plan records the total requirement of 19.08 hectares, at the commencement of the hearing counsel for QAC corrected this requirement to 18.4 hectares, the adjustment being made following the re-survey of the site and minor boundary adjustments.<sup>2</sup>

[7] Technical terms and abbreviations used in this decision are set out in Glossaries attached as Annexures 2 and 3.

**The parties**

[8] Four parties gave notice to be heard in relation to the proceeding. They are:

- Air New Zealand Ltd (ANZL);
- Remarkables Park Ltd (RPL);
- Queenstown Lakes District Council (in its regulatory capacity); and
- Queenstown Lakes District Council (in its non-regulatory capacity).

***Air New Zealand Ltd (ANZL)***

[9] ANZL filed a submission opposing the notice of requirement (NOR). ANZL supports the objective of the NOR, but submits the NOR does not, in its present form, achieve that objective.<sup>3</sup>

[10] ANZL has five areas of concern. These are:

- (a) the proposal to designate part of Lot 6 to accommodate a Code D parallel taxiway has no foundation;

<sup>2</sup> QAC Opening submissions at [7].

<sup>3</sup> ANZL Opening submissions at [2.1].



- (b) the proposal underlying the NOR that forward planning be based on a 300m main runway strip width, likewise has no foundation;
- (c) there has been inadequate consideration of alternatives, especially off-airport sites (other than Lot 6);
- (d) there has been an omission to consider, or the inadequate consideration of, economic aspects of the NOR;
- (e) there is already sufficient land available within QAC's existing designation to accommodate the relocation of the helicopters and general aviation.<sup>4</sup>

[11] ANZL submits that the NOR objective can be met within the existing designation and seeks that the NOR be cancelled.

***Remarkables Park Ltd (RPL)***

[12] RPL accepts that general aviation will need to move from its present location.<sup>5</sup> In common with ANZL, RPL contends that the objective of the NOR can be met within the existing designation and likewise seeks that the NOR be cancelled. More generally, RPL submits the location of the work on its land is contrary to sections 149U and 171(1)(a)-(c) of the Act.

[13] Pursuant to section 171(1)(d), RPL submits the court should have particular regard to two matters which it says are reasonably necessary in order for the court to make a determination on the requirement. They are:

- (a) against the earlier background of extensive land dealings between RPL and QAC, RPL's legitimate expectation that QAC would not seek to remove the benefits conferred to RPL under the contractual arrangements arising from these dealings; and
- (b) in the context of those contractual arrangements RPL alleges a cause of action in estoppel.



<sup>4</sup> ANZL Closing submissions at [1.3(b)].

<sup>5</sup> RPL Closing submissions at [4.1].

***QLDC (regulatory)***

[14] QLDC in its regulatory capacity (**QLDC (regulatory)**) sought leave to become a party late in the proceeding. Counsel for QLDC (regulatory) describes its role “as assisting the court to ensure that the notice of requirement (**NOR**), if approved, achieves the purpose of the RMA and results in an appropriate environmental outcome”.<sup>6</sup> (We note that the NOR cannot be approved if it does not achieve the purpose of the Act).

[15] QLDC (regulatory) called evidence on the topics of landscape/amenity, statutory planning, traffic and noise. Its witnesses supported additional conditions required to address effects on the environment of allowing the requirement. Subject to those conditions, QLDC (regulatory) did not raise any issue that would support the cancellation of the NOR.<sup>7</sup>

***QLDC (non-regulatory)***

[16] QLDC in its non-regulatory capacity (**QLDC (non-regulatory)**) filed a submission in support of the NOR, which we have considered. While counsel for QLDC (non-regulatory) entered an appearance on the first day of the hearing, it took no further part in the hearing.

**Description of the Queenstown Airport and the surrounding area**

[17] Queenstown Airport is located at Frankton, some 7 kilometres by road to the centre of Queenstown. The Airport is situated in Frankton Flats which is bordered by The Remarkables to the south-east, Lake Wakatipu and Peninsula Hill to the west. More distant is Queenstown Hill, Sugar Loaf and Ferry Hill to the north-west, Slope Hill to the north-east and Queenstown Range to the north.<sup>8</sup>

[18] Immediately to the north of the Airport is the Frankton Golf Course (partly located within the aerodrome designation), the Event and Aquatic centres and outdoor playing fields (these facilities are partly located on land subject to two designations, including the earlier in time aerodrome designation), the Glenda Drive industrial area



<sup>6</sup> Winchester Opening submissions at [2].

<sup>7</sup> Winchester Closing submissions.

<sup>8</sup> General Aviation and Helicopter Precinct updated review report December 2010 at [2.1].

and land that is the subject of Plan Change 19 (**PC19**). To the north-west is the settlement of Frankton.

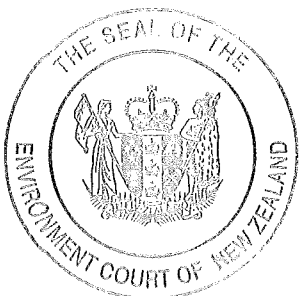
[19] In the south-west is the Remarkables Park zone with its town centre and residential areas. This partly developed zone provides for commercial, residential and visitor accommodation, community and recreational facilities. The land (part of Lot 6) which is the subject of the NOR is zoned Remarkables Park (**RPZ**) Activity Area 8, and is presently used for grazing. Within RPZ and south of the Airport, and including Lot 6, is a large area of open space extending from the confluence of the Kawarau and Shotover Rivers to the boundary of the aerodrome designation.<sup>9</sup>

[20] The Airport and its immediate neighborhood are situated within an urban environment albeit one that has retained visual connection to the outstanding natural landscapes of the surrounding mountains. It is an environment which is undergoing rapid change with the runway extension, approval of the eastern access road, approval of Plan Change 34, and with the continuing development of the RPZ. This is to say, nothing of the development that would be enabled through PC19.

### **Description of the airfield**

[21] The Queenstown Airport's aeronautical business falls into two main categories – scheduled airline passenger service and non-scheduled aircraft operations. Non-scheduled aircraft operations include helicopters, flightseeing and training, and smaller fixed wing aircraft and also private and military aircraft operations. Presently, scheduled airline services account for approximately 82% of overall passenger traffic.<sup>10</sup>

[22] The Airport operates a two runway system. The main runway, for most of its 1909m length, is 30m wide and has a runway strip width of 150m. This runway is used by scheduled airlines and non-scheduled operators. The main runway is an instrument non-precision approach runway which can accommodate up to Code C aircraft. A parallel chip sealed taxiway to the south of the main runway is not able to be used by Code C aircraft.



<sup>9</sup> There is a single building, a substation in Lot 6. It is not known whether this building will remain.

<sup>10</sup> General Aviation and Helicopter Precinct updated review report December 2010 at [2.2].

[23] Nearly all general aviation and helicopter operations are located in the grass area south of the passenger terminal. Referred to as the “general aviation zone” it accommodates both fixed wing and helicopter operators with facilities and associated flight operations occurring in close proximity, and interspersed with each other. There is a second smaller general aviation precinct immediately north of the passenger terminal. The shorter 994m cross-wind runway is used by general aviation (up to Code B) and helicopters.

[24] We understand that the accommodation of corporate jets is an informal arrangement.

### **Description of existing designations**

[25] Three designations relevant to airport operations were drawn to our attention and these are:

- (a) Designation 2 (the Aerodrome designation);
- (b) Designation 3 (Air Noise Boundary designation); and
- (c) Designation 4 (Approach and Land Use Controls).

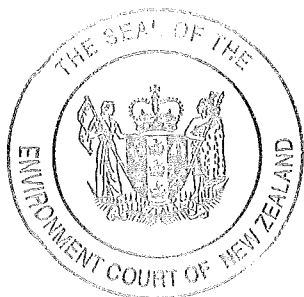
[26] The purpose of Designation 2 is given in the District Plan as being:

... to protect the operational capability of the Airport while at the same time minimising adverse environmental effects from aircraft noise on the community at least to the year 2015.

[27] The extent of the aerodrome designation is shown on planning map 31a, and it is proposed in separate proceedings before the court (**PC35**) to amend this map.

[28] The purpose of Designation 3 is to identify the area of airport operations where noise sensitive activities are prohibited. QAC intends to uplift Designation 3 upon approval of PC35. A final decision on PC35 is to be released in conjunction with these proceedings.

[29] Designation 4 limits the construction of any structure or facility which may inhibit the safe and efficient operation of Queenstown Airport. The designation describes the obstacle limitation surfaces in place for the Airport, which consist of an



approach and takeoff surface, a transitional surface, an inner horizontal surface and a conical surface.

### **Description of the works**

[30] While the exact configuration of development on land the subject to the NOR has not been finalised (and there is nothing unusual in this), the key elements of the NOR are:

- a helicopter facility;
- a general aviation (fixed wing) facility for up to Code B aircraft;
- a private and corporate jet facility for up to Code C aircraft;
- a fixed based operator (to service jets and possibly general aviation);
- a Code D parallel taxiway adjacent to main runway;
- a Code B parallel taxiway adjacent to cross-wind runway;
- a precision approach runway with a 300 metre width runway strip;
- ancillary activities, including landscaping, car parking, and an internal road network which includes two access roads to connect with Hawthorne Drive at the western end of the designation area and the Eastern Access Road (**EAR**) at the eastern end.

[31] These works are to meet QAC's objective for the NOR which is:

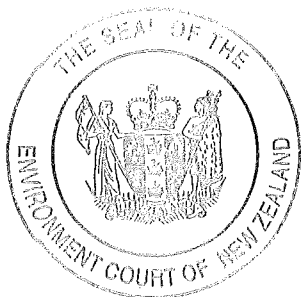
... to provide for the expansion of Queenstown airport to meet projected growth while achieving the maximum operational efficiency as far as possible.<sup>11</sup>

[32] As presented to the court the layout for the general aviation precinct occupies approximately 1 kilometre frontage of the existing aerodrome south and parallel with the main runway.<sup>12</sup>

[33] Access to the NOR area is off Hawthorne Drive at the western most end of Lot 6, adjacent to the boundary of QAC land. A second access is proposed at the eastern most end of Lot 6 to the proposed Eastern Access Road (**EAR**), although the timing of this

<sup>11</sup> NOR Annexure 2, Clause 2.1.4.

<sup>12</sup> NOR, Annexure 3.



depends upon the construction of the EAR.<sup>13</sup> An internal road would link the new general aviation/helicopter precinct to the passenger terminal.<sup>14</sup>

[34] In evidence QAC proffered three new conditions for the aerodrome designation, addressing the protocol for archaeological discovery, a landscape plan and building design control. Otherwise, no other changes are made to the aerodrome designation.

[35] Forecasting of growth in scheduled airline operations was given in the NOR documentation and updated in the evidence of QAC's airport planner, Mr I Munro. This evidence was uncontested and we accept it, as we do the evidence that in order to accommodate growth the passenger terminal and associated facilities will need to be expanded. The appropriate location for the expansion of the passenger terminal and its associated facilities is south of the current terminal, and includes part of the area where general aviation/helicopters presently operate. Growth entails also the need to expand airside facilities including a parallel taxiway for scheduled airline passenger services, at a location south of the main runway. Because of this we accept that the general aviation/helicopter precinct will need to be relocated; remaining in-situ is not an alternative.

### **The area of the requirement for the designation**

[36] The area for the requirement is located adjacent to the aerodrome's main and cross-wind runways with access to the area off Hawthorne Drive (in the west) and secondly, the eastern access road (to be formed). Designation 2 (**the aerodrome designation**) is to be altered to include part of Lot 6, DP 304345 and a portion of an unformed road adjacent to the south-western corner of Lot 6, DP 304345.<sup>15</sup> Planning map 31a of the District Plan would also be amended.<sup>16</sup>

[37] The Airport's southern boundary and the extent of the existing aerodrome designation adjacent to Lot 6 is located 201m south of the main runway centerline.<sup>17</sup>

<sup>13</sup> The EAR is an extension of Hawthorne Drive.

<sup>14</sup> NOR, Form 18 at [2.5-2.6].

<sup>15</sup> Kyle, Supplementary evidence 18 May 2012 Appendix H, clause D. The NOR does not require any proposed amendment to the designation. These changes were proffered in Appendices E and H of the supplementary evidence of Kyle dated 18 May 2012.

<sup>16</sup> NOR Appendix U.

<sup>17</sup> Munro EiC at [45].





The requirement is for a strip of Lot 6 approximately 160m in depth, lying parallel to the entire 1 kilometre length of the common boundary of the QAC and RPL land.<sup>18</sup>

### **The law**

[38] The NOR was referred to the Environment Court by the Minister for the Environment pursuant to section 147(1)(b) of the Act. Section 149U requires the Environment Court to consider certain matters, being:

- (a) the Minister's reasons for making the direction;
- (b) the information provided by the EPA; and, as this case requires
- (c) to act in accordance with subsection (4).

[39] Section 149U(4) provides:

- (4) If considering a matter that is a notice of requirement for a designation or to alter a designation, the Court-
  - (a) must have regard to the matters set out in section 171(1) and comply with section 171(1A) as if it were a territorial authority; and
  - (b) may –
    - (i) cancel the requirement; or
    - (ii) confirm the requirement; or
    - (iii) confirm the requirement, but modify it or impose conditions on it as the Court thinks fit; and
  - (c) may waive the requirement for an outline plan to be submitted under section 176A.

[40] Section 171(1A) and (1) provides:

#### 171 Recommendation by territorial authority

(1A) When considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition.

(1) When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to-

- (a) any relevant provisions of-



<sup>18</sup> Kyle, EIC at [4.2]. In NOR, Appendix N: General Aviation and Helicopter Precinct Updated Review Report the depth of land is given as 160m.

- (i) a national policy statement:
- (ii) a New Zealand coastal policy statement:
- (iii) a regional policy statement or proposed regional policy statement:
- (iv) a plan or proposed plan; ...
- (b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if-
  - (i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or
  - (ii) it is likely that the work will have a significant adverse effect on the environment; and
- (c) whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and
- (d) any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.

[41] The relevant Part 2 provisions are the purpose of the Act (section 5) and section 7(b), (c) and (f). Section 7 provides that in achieving the purpose of the Act we are to have particular regard to:

- (b) the efficient use and development of natural and physical resources;
- (c) the maintenance and enhancement of amenity values;
- ...
- (f) the maintenance and enhancement of the quality of the environment ...

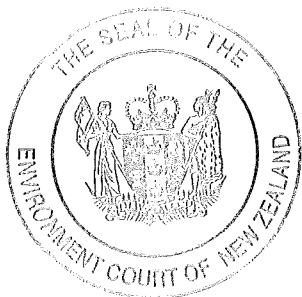
[42] We set out the law in relation to sections 168 and 171, as the meaning of these sections were the subject of submissions.

### ***Section 168***

[43] Section 168, notice of requirement to the territorial authority, relevantly provides:

- (2) A requiring authority [for the purposes] approved under section 167 may at any time give notice [in the prescribed form] to a territorial authority of its requirement for a designation-
  - (a) For a project or work; or
  - (b) In respect of any land, water, subsoil, or airspace where a restriction is reasonably necessary for the safe or efficient functioning or operation of such a project or work.

...

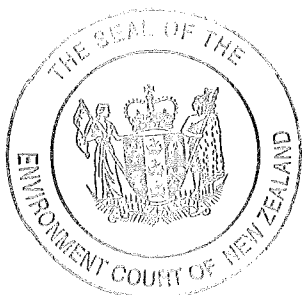


- (4) A requiring authority may at any time withdraw a requirement by giving notice in writing to the territorial authority affected.
- (5) Upon receipt of notification under subsection (4), the territorial authority shall-
  - (a) Publicly notify the withdrawal; and
  - (b) Notify all persons upon whom the requirement has been served.

[44] RPL urged upon us a definition of “requirement” under section 168(2) that means “essential” as opposed to “desirable, feasible, practicable or preferable”.<sup>19</sup> We do not accept this submission.

[45] The term “requirement” is not defined in the Act, but in context it appears in section 168 as a noun - the term given to a proposal for a designation.<sup>20</sup> In subsections (2)(a) and (b) of section 168, the full term is given as “a requirement for a designation”. In subsection (4) this term is abbreviated to “a requirement”. Our interpretation is consistent with the definition of designation in section 166; designation means a provision made in the district plan to give effect to a requirement made by a requiring authority under section 168 or section 168A or clause 4 of Schedule 1. Moreover, if RPL’s interpretation were correct this would render section 171(1)(c) otiose.

[46] Finally, we do not accept RPL’s submission that the term “requirement” in section 168 RMA should be construed in light of section 40 Public Works Act 1981 (PWA). The matter and subject of these provisions are not, as submitted, *in pari materia*.<sup>21</sup> While the meanings of terms in one Act may sometimes be held to apply to the same terms used in another Act on the same subject, as the learned author of *Statute Laws in New Zealand* observes this is by no means an inevitable conclusion: “It is always dangerous to assume that words bear the same meaning in different Acts: the contexts and purposes may be different enough to make such analogies inapplicable”.<sup>22</sup> In this case neither the relevant term nor subject matter addressed in section 168 RMA and section 40 PWA are the same and we do not accept RPL’s submission that “a requirement” has the same meaning as “required” for the reasons we gave in [45] above.



<sup>19</sup> RPL Opening Submission at [4.3].

<sup>20</sup> See also *Ferrum Engineering Ltd v Otago Regional Council* [2008] NZMA 233 at [15].

<sup>21</sup> RPL Opening submissions at [18] on the same matter.

<sup>22</sup> J F Burrows *Statute Law in New Zealand*, 4<sup>th</sup> edition at p 249.

[47] We comment next on section 171(1)(b), (c) and (d), but before doing so, we note that section 171(1A) is not relevant to these proceedings.

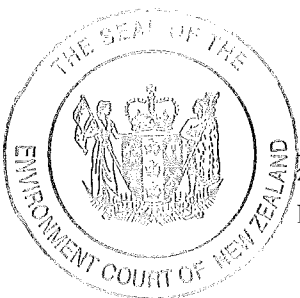
***Section 171(1)(b)***

- (b) whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if -
  - (i) the requiring authority does not have an interest in the land sufficient for undertaking the work; or
  - (ii) it is likely that the work will have a significant adverse effect on the environment

[48] As QAC does not own an interest in the subject land section 171(1)(b) is relevant. Indeed a central issue in this case is whether QAC gave adequate consideration to alternative sites, routes or methods.

[49] The *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* summarises the principles derived from case law interpreting this section 171(1)(b). We adopt what is said there as follows:

- a) the focus is on the process, not the outcome: whether the requiring authority has made sufficient investigations of alternatives to satisfy itself of the alternative proposed, rather than acting arbitrarily, or giving only cursory consideration to alternatives. Adequate consideration does not mean exhaustive or meticulous consideration.
- b) the question is not whether the best route, site or method has been chosen, nor whether there are more appropriate routes, sites or methods.
- c) that there may be routes, sites or methods which may be considered by some (including submitters) to be more suitable is irrelevant.
- d) the Act does not entrust to the decision-maker the policy function of deciding the most suitable site; the executive responsibility for selecting the site remains with the requiring authority.
- e) the Act does not require every alternative, however speculative, to have been fully considered; the requiring authority is not required to eliminate speculative alternatives or suppositious options.<sup>23</sup>



<sup>23</sup> *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* Ministry for the Environment, Board of Inquiry, 4 September 2009 at [117] and [186].

[50] Furthermore, section 171(1)(b) does not confer authority on us to substitute our own choice amongst the alternative sites, routes or methods for undertaking the work of the requiring authority.<sup>24</sup> The territorial authority (or on direct referral the Environment Court) is not required to test each alternative against Part II.<sup>25</sup> It is sufficient for QAC to show that it did not act arbitrarily in its selection of alternatives.<sup>26</sup> We keep in mind the warning given by Judge Kenderdine in *Quay Property Management Ltd v Transit New Zealand* – the territorial authority (here the Environment Court) should not cross the line into the adjudication of the merits, determining the best use of the alternatives and, by that measure, deciding whether the chosen alternative was reasonable.<sup>27</sup>

***Section 171(1)(c)***

- (c) **whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought**

[51] Again, we respectfully adopt the summary given in the *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* as to relevant considerations arising under section 171(1)(c) of the Act. These are:

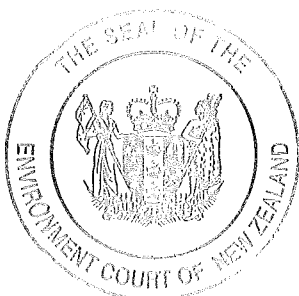
- a) The consideration is limited to the requiring authority's objectives for which the designation is sought, rather than an enlarged examination of alternatives (the subject of section 171(1)(b)).
- b) In paragraph (c), the meaning of the word necessary falls between expedient or desirable on the one hand, and essential on the other; and the epithet reasonably qualifies it to allow some tolerance.
- c) The paragraph does not impose some higher threshold or standard of proof that would require a requiring authority to demonstrate that the project and designation would better achieve its objectives than an alternative project or means of seeking authorization; nor that they absolutely fulfil its objectives.
- d) The Act neither requires nor allows the merits of the objectives themselves to be judged by the territorial authority.
- e) On whether a designation is the preferable planning method to be used, the relevant factors may include that a designation signals potential for future changes; provides a

<sup>24</sup> *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* ibid at [183].

<sup>25</sup> *Auckland Volcanic Cone Society v Transit New Zealand* [2003] NZRMA 316 at [60-61].

<sup>26</sup> *Quay Property Management Ltd v Transit New Zealand* Decision No. W028/2000, Kenderdine J. at [152].

<sup>27</sup> *Quay Property Management Ltd v Transit New Zealand* at [152].



clear method for those changes to occur (including the outline plan procedure where applicable); provides a uniform approach through various territorial authority districts and that it may not otherwise be possible to 'freeze' the existing plan provisions.

- f) A designation may also be a desirable planning method to establish a clear corridor for mitigation of some effects; to restrict conflicting uses and structures pending completion of detailed design (especially for a long-term project); and a precursor to compulsory acquisition of land under the Public Works Act.<sup>28</sup>

[52] To this we add that the Environment Court on direct referral may consider the extent to which the work is reasonably necessary for achieving the requiring authority's objectives and may limit the extent of the designation accordingly.<sup>29</sup>

### Other legal issues

#### *Findings in relation to section 171(1)(d) and the Public Works Act*

[53] The PWA governs the acquisition of land for public works by local authorities. Pursuant to section 18(1) of the PWA, QAC gave notice to RPL and the District Land Registrar on 30 November 2011 of its desire to acquire part of Lot 6. No steps have been taken by QAC in relation to the compulsory acquisition process of the PWA.<sup>30</sup> The NOR has a direct bearing on the outcome of other proceedings before the Environment Court, including PC19, PC35 and the associated notice of requirement to alter Designation 2.

[54] We agree with counsel for QAC and QLDC (non-regulatory) that the compulsory acquisition process not having commenced, section 24 PWA is not directly relevant to our determination.<sup>31</sup> In particular, the three overlapping criteria<sup>32</sup> in section 24(7) of fairness, soundness and the reasonably necessity for achieving the objective of the local authority (here QAC) are not matters we need decide.

[55] We do not dismiss the opportunity yet open to the parties to reach agreement on the acquisition of land pursuant to sections 17-24 PWA or pursue other processes that

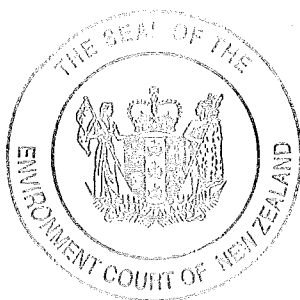
<sup>28</sup> *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* ibid at p [198].

<sup>29</sup> *Final Report and Decision of the Board of Inquiry into the Upper North Island Grid Upgrade Project* ibid at p 204, *Bungalo Holdings Ltd v North Shore City Council* Decision No. A055/01 at [67] and [70].

<sup>30</sup> Lane Neave letter to the EPA dated 3 February 2011.

<sup>31</sup> QAC Closing Submission at [90-97].

<sup>32</sup> *Waitakere City Council v Brunel* [2007] NZRMA 235 at [47].



may be available to them. Even if we are wrong, and the issue of fairness (in particular) is relevant under section 171(1)(d), there is no evidence upon which we could find that QAC agreed, as submitted by RPL counsel, not to designate the land.<sup>33</sup> Apart from the fact that QAC and RPL entered into contractual arrangements we have no evidence from RPL as to its reliance on the contracts or any representation made by QAC when subsequently planning to develop its land or that it held a legitimate expectation its “buffer” ie. Activity Area 8, would not be reduced. (The contracts were handed up to the court as a bundle attached to counsel for RPL’s opening submissions, which we were told “not to read”).<sup>34</sup>

***Findings in relation to the best practicable option (section 16 RMA)***

[56] Referring to section 16 RMA, RPL criticises QAC for not using the best practical option as a method to assess the impact of alternate FATO locations.<sup>35</sup> *Ngataringa 2000 Inc v Attorney General*<sup>36</sup> was cited as authority that when seeking to achieve the best practical option this could include consideration of alternative sites, buffers to minimise noise emission, and the design of buildings or other works to incorporate the best practical option for noise mitigation features. A reading of the decision reveals that this was not the decision of the Planning Tribunal, but a submission of the applicant (for a declaration).<sup>37</sup>

[57] In *Ngataringa 2000 Inc* the Planning Tribunal held that those occupying designated land and responsible for activities on designated land are subject to section 16 of the Act.<sup>38</sup> Notwithstanding subsequent amendments to section 16, we accept that this interpretation remains correct. However, *Ngataringa 2000 Inc* is distinguishable from this case in that the requirement for a designation was confirmed and the requiring authority was in occupation of the land.

[58] We hold section 16 is not to be applied as if it were an additional criterion to subsection (1)(a)-(d) of section 171. In some cases adopting the best practicable option may be useful check for the decision-maker, particularly when assessing the adequacy of

<sup>33</sup> RPL Opening Submissions at [9.8].

<sup>34</sup> Transcript at [75].

<sup>35</sup> RPL Opening submissions at [7.5-7.10], RPL Closing submissions at [2.2.14-2.2.21].

<sup>36</sup> Planning Tribunal Auckland, Judge Sheppard, A16/94, 11 March 1994.

<sup>37</sup> At p [11].

<sup>38</sup> Decision at pp [16] and [28].



the alternatives under consideration, but not in every case. The effect of RPL's submission would be to require the Environment Court to determine the "best" alternative in respect of helicopter noise emissions. This approach is inconsistent with the scheme of the Act, but in any event belies the complexity of decision-making by QAC having regard to the competing alternatives. Subject to Part 2, the effects of noise on the environment of allowing the requirement are relevant as are a range of other environmental effects in contention in this proceeding.

### **Statutory Plans**

[59] We set out next the policy context relevant to this notice of requirement; in particular the Regional Policy Statement and the Queenstown Lakes District Plan (section 171(1)(a)).

### ***Regional Policy Statement (RPS)***

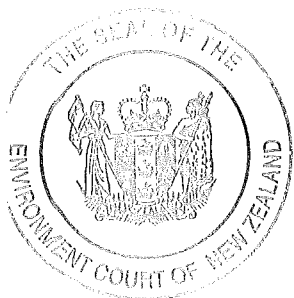
[60] The RPS contains the objective to promote the sustainable management of Otago's foreseeable needs of its communities (objective 9.4.2). Policies elaborate on what is meant by "sustainable" and importantly in this case policy 9.5.2 is:

To promote and encourage efficiency in the development and use of Otago's infrastructure through:

- (a) Encouraging development that maximizes the use of existing infrastructure while recognising the need for more appropriate technology; and

[61] The explanation for this policy emphasises sustainable use through consolidation and improved use of existing infrastructure prior to extensions or new development. This approach will "help reduce the costs to the community for providing and maintaining infrastructure and promote its more efficient use in the long term". In doing so, these provisions directly import considerations of efficient use and development of physical resources.

[62] Also relevant is the policy to maintain and where practicable enhance the quality of life for people and communities within Otago's built environment through, amongst other measures, the identification and provision of a level of amenity which is acceptable to the community (policy 9.5.5.).





***Queenstown Lakes District Plan***

[63] Frankton Flats is regarded as an important area in terms of providing for future urban growth. The Plan has a specific objective for Frankton in its District Wide Issues Chapter which is for:

Integrated and attractive development of the Frankton Flats locality providing for airport operations, in association with residential, recreation, retail and industrial activity while retaining and enhancing the natural landscape approach to Frankton along State Highway No. 6.<sup>39</sup>

[64] The related policy is broadly stated in terms of providing for the efficient operation of the Queenstown Airport and related activities in the Airport Mixed Use Zone (policy 6.1).

[65] The Transport Chapter contains an objective and policies addressing specifically air transport. In this chapter the Queenstown Airport is recognised as a physical resource important to the social and economic wellbeing of the community and secondly, an important factor in the rate of growth in the District. The explanation and reasons for the objectives and policies recognises that there is a balance between airport operations and the community needs that are to be achieved:

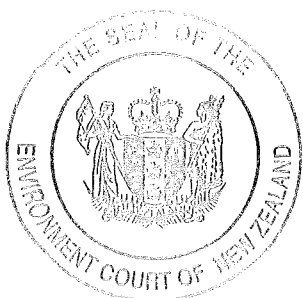
The District's airports must be able to operate effectively and in a manner which provides for the District's well being. At the same time any adverse effects on the community, particularly the resident community, must be mitigated. The Council is of the view that the operation of Queenstown Airport should not preclude opportunities for further development of activities in close proximity, provided that appropriate controls are implemented.<sup>40</sup>

[66] Responding to this, objective 8 provides that there are to be effective and controlled airports for the District, that are able to be properly managed as a valuable community asset in the long term.

[67] Several policies are relevant and include efficiency considerations relating to the use and development of the airport resource. These are:

<sup>39</sup> Chapter 4, District Wide Issues, Objective 6 at [4-56].

<sup>40</sup> Chapter 14, Explanation and principal reasons for adoption at [14-11].



- 8.1 To provide for appropriate growth and demand for air services for Queenstown.
- 8.2 To avoid or mitigate any adverse environmental effects from airports on surrounding activities.
- ...
- 8.6 To ensure buildings at both airports have regard for and are sympathetic to the surrounding activities, and landscape and amenity values by way of external appearance of buildings and setback from neighbouring boundaries.
- ...
- 8.8 To manage noise sensitive activities in areas with existing urban development surrounding the airport, while ensuring future noise sensitive activities in areas currently undeveloped and adjacent to airports are restricted.

[68] Relevant to these proceedings also is the underlying zoning for the land that is subject to the notice of requirement. Lot 6 is located within the RPZ's Activity Area 8. The RPZ is introduced as an area comprising "approximately 150 hectares of perimeter urban land in the vicinity of Frankton and occupies a strategic position".<sup>41</sup>

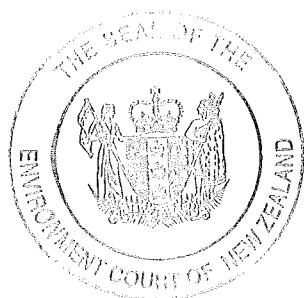
[69] Objective 1 for the zone is broadly stated as providing for the integrated management of the effects of residential, recreation, commercial, community, visitor accommodation, educational and Queenstown Airport activities.

[70] Several related policies address the relationship of the zone with the Queenstown Airport:

- (1) to require development to be undertaken in an integrated manner which maximises environmental and social benefits.
- ...
- (4) to ensure that development takes place in a manner complementary to the operational capability of Queenstown Airport.
- ...
- (5) to establish a buffer between the airport and noise sensitive activities in the Remarkables Park zone.

[71] Objective 2 provides for urban development to occur in a form which protects and enhances the surrounding landscape and natural resources. This is achieved through

<sup>41</sup> Chapter 12, Remarkables Park zone at [12-65].



a series of Activity Areas identified in the zone's Structure Plan including Activity Area 8 where Lot 6 is located. This Activity Area is described in the following terms:

**Activity Area 8**

- To enable the establishment of activities of a rural/recreational nature, infrastructural utilities and parking, which are not sensitive to nearby airport operations.

[72] The explanation and principal reasons for adoption of these objectives and policies states:

A significant "buffer" area of land formerly partly owned by Queenstown Airport Corporation Limited, this land is suitable for development for rural, recreational infrastructural facilities not of a noise sensitive nature. Much of it falls in close proximity to the airport and within higher noise control areas. As such residential activities, visitor accommodation and community activities are prohibited in this area within the Outer Control Boundary.

[73] While "buffer" is not explained in the District Plan, there was general agreement that these policies mutually benefited the RPZ and Queenstown Airport.

[74] Finally, an issue was raised by Mr Foster (RPL's planner) as to whether Designation 4's transitional surface provisions would need amending if provisioning for a 300m width runway strip was approved. While we agree with the interpretation of the relevant provisions given by Mr Kyle in response, there is no issue arising in relation to the transitional surfaces as it is our decision to cancel part of the NOR.

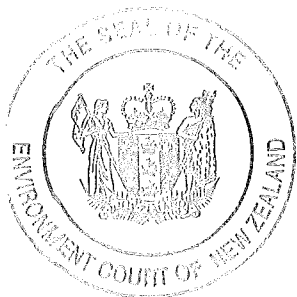
## **Section 171 Evaluation**

### ***Introduction***

[75] In 2003 QAC initiated a review of its existing land and airside facilities at Queenstown Airport. Since then it has commissioned no less than eight reports from airport planning consultants Airbiz Aero, Woodhead and Landrun and Brown.<sup>42</sup>

[76] The reports produced in 2005, 2006, 2007 and 2008 consider sites for a new general aviation/helicopter precinct located within the existing aerodrome designation north of the main runway. In four of the eight reports produced, consideration was

<sup>42</sup> These reports are attached to the NOR Appendix G, N and S.



given to relocating the general aviation/helicopter precinct south of the main runway. However, in each case the site of the proposed southern precinct is different from that supported by QAC in its NOR, albeit part of Lot 6 is included.<sup>43</sup>

[77] When preparing the reports at no time prior to the NOR did QAC consult with scheduled operators, and then not at all with its principal operator ANZL.

***Master planning between 2005 and 2010***

[78] Up until the 2010 Master Plan, the airport planning parameters assumed that Code C aircraft were the design aircraft for the main runway and that Queenstown Airport would remain an instrument non-precision approach runway. In the first report produced by Airbiz (the 2005 Master Plan) Code D aircraft were considered but discounted due to the terrain and runway length constraints.<sup>44</sup> The retention of the 150m runway width strip was considered appropriate for Queenstown Airport as terrain would always be a limiting factor. Noting CAA's acknowledgement that due to significant terrain infringements to the Airport's obstacle limitation services, the report concludes that Airport would never be able to comply with the requirements for having an instrument runway.

[79] The 2005 Master Plan considered alternative locations for a general aviation/helicopter precinct within Lot 6 but these were dismissed because:

- (a) these options required protracted negotiations and change of designations without guarantee of outcome;
- (b) there were no significant operational benefits; and finally
- (c) the options were highly distracting to QAC management.<sup>45</sup>

***April 2007 South East Zone Planning Report***

[80] The South East Zone Planning Report is important in that it is the only report commissioned by QAC to consider possible uses of designated land south of the main

<sup>43</sup>See report dated April 2007 by Airbiz entitled *South East Zone Planning Report*; a report dated 11 February 2009 by Airbiz entitled *General Aviation and Helicopter Location Review*; A report dated 13 February 2009 by Landrun and Brown, entitled *General Aviation and Helicopter Location Review – Peer Review*;<sup>43</sup> and the Woodhead Master Plan produced 2008.<sup>43</sup> Woodhead Master Plan contains no text but is a single plan recording a southern general aviation precinct. The location of helicopter facility is not shown.

<sup>44</sup> NOR Appendix G pp [13-14] and Table 3.1.

<sup>45</sup> NOR Appendix G at p [35].



runway. The assumed planning parameters include a Code C aircraft design and a non-precision approach to the main runway.

[81] Airbiz concludes that within an area approximately 74m deep a range of developments were appropriate south of the main runway including corporate jets, private hangars, flightseeing and general aviation. However, there was likely to be insufficient land available to accommodate growth in helicopter businesses. For operational reasons associated with the interface of helicopters with other users of a proposed Code C parallel taxiway south of the main runway, Airbiz concluded the northern side was a better location for future helicopter facilities.<sup>46</sup> Airbiz also recommended that general aviation flightseeing operations be grouped north of the main runway.<sup>47</sup>

### ***2010 Master Plan***

[82] Finally, the 2010 Master Plan reports on five developments that had a significant bearing on the NOR provision for a general aviation/helicopter precinct on part of Lot 6. These being:

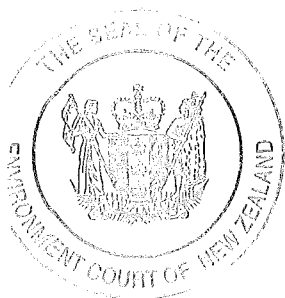
- (a) the protection of airfield runway/taxiway/object separation distances for a precision approach runway;
- (b) planning for a parallel taxiway;
- (c) consideration of protection for aircraft with wider wingspans;
- (d) accelerated traffic growth; and
- (e) the decision to consider Lot 6 as an option for the general aviation/helicopter precinct.

[83] Of these five developments, three (a-c) are critical in determining the spatial requirement for the designation.

[84] The 2010 Master Report evaluates two alternative locations for a general aviation/helicopter precinct:

<sup>46</sup>South-East Zone Planning Report, April 2007 at p [9].

<sup>47</sup> The reasons for this are given in the Helicopter and General Aviation Facilities planning report, dated November 2006.



- (a) a north-east option comprising 22 hectares of land owned by QAC situated north of the main runway and east of the cross-wind runway; and
- (b) a 19.1 hectares south-east option located on part of Lot 6.

[85] The Master Plan reports that as a consequence of adopting the revised planning parameters, land was no longer available for development within the existing aerodrome designation south-east of the main runway (as it had reported in the South East Zone Planning Report).<sup>48</sup>

[86] Finally the 2010 Master Plan also reports on on-going stakeholder consultation with the majority of tenants and operators at the airport (principally helicopter operators) and their concern that the new precinct not compromise operational safety and efficiency. A qualitative evaluation of the two alternative precincts is provided and in the executive summary Airbiz concludes that the north-east precinct is distinctively inferior.<sup>49</sup>

**Issue: Was adequate consideration given to alternative sites, routes or methods of undertaking the work (section 171(1)(b))?**

[87] RPL<sup>50</sup> and ANZL<sup>51</sup> identified five alternative sites or methods which they say were not adequately considered; these being:

- (a) locating the general aviation/helicopter precinct on land north of the main runway including on undesignated land owned by QAC and/or QLDC;
- (b) locating the general aviation/helicopter precinct on land north of the main runway within the aerodrome designation;
- (c) whether RPL land should have a building restriction strip placed on it for a distance of 15.5m from the common boundary to satisfy taxiway separation distance requirements for a new southern taxiway or whether CAA dispensation could be obtained for this;
- (d) the relocation of some or all of the general aviation and helicopter facilities off the Airport;

<sup>48</sup> 2010 Master Plan at p [13].

<sup>49</sup> NOR Appendix N 2010 Master Report at [1.6].

<sup>50</sup> RPL Opening Submissions at [7.4].

<sup>51</sup> ANZL Opening Submissions at [2.74].



- (e) consideration of individual components of the work being accommodated within the existing aerodrome designation.

[88] We consider (a), (c) and (e) to be entirely suppositious for reasons that we set out next. However this is not true for (b) and (d) which we consider in more detail.

***Locating the general aviation/helicopter precinct on land north of the main runway, including on undesignated land owned by QAC and/or QLDC***

[89] Conceptual plans prepared by RPL for a general aviation/helicopter precinct north of the main runway included undesignated land owned by QAC within the area of PC19.<sup>52</sup> Under these plans a general aviation/helicopter precinct would displace up to 4.52 hectares of industrial land within PC19. In proposing this option, RPL witnesses did not address the scarcity of industrial land within Queenstown (an important issue that PC19 *inter alia* seeks to address). There was some suggestion by the RPL planner, Mr M Foster, that aerodrome activities are industrial activities for the relevant activity areas within PC19.

[90] We doubt Mr Foster's interpretation is correct and in the absence of any evidence in this proceeding or PC19 addressing the implications of an aviation precinct within PC19, particularly in relation to the urban form and function, we do not consider that PC19 land should be available as part of an alternative location. Activities relating to an aviation precinct appear to be outside those contemplated by the District Council when promulgating PC19.

[91] The conceptual plans for a general aviation/helicopter precinct located partly on land designated for the Event Centre were not supported by Mr Foster. We agree with him that the presence of the Event Centre's designation would cause "serious trouble" and should be discarded.<sup>53</sup>

***Locating the aviation/helicopter precinct on land north of the main runway within the aerodrome designation***

<sup>52</sup> Sachman EiC at Appendix E, concept plans 1 and 1a, and Exhibits 11A-D.

<sup>53</sup> Transcript at [939].



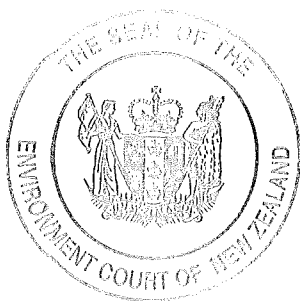
[92] The crux of RPL's case is that if there is designated land on which QAC may develop a general aviation/helicopter precinct then it cannot be said this work or designation is reasonably necessary for achieving its objective (section 171(1)(c)). QAC responds submitting that "the existence of an alternative does not render a chosen option unnecessary and the choice of neighbouring land that is suitable can be reasonable where the requiring authority's land is less suitable."<sup>54</sup>

[93] The issue, and QAC's response to the issue, is framed in a way that concerns both the process (section 171(1)(b)) and secondly, the manner in which QAC's objectives are proposed to be given effect (section 171(1)(c)). It is practicable to respond to the issue in the manner it is framed, but in doing so we resist the invitation that is implicit in the evidence of RPL's aviation planner, Mr D Sachman, to adjudicate the merits of the alternative sites and, to paraphrase Judge Kenderdine in *Quay Property Management Ltd*, by that measure decide whether the chosen alternative is reasonable.

[94] The suitability or otherwise of existing designated land is a question of fact and degree and where suitable designated land exists there will be less tolerance around the issue of whether the work or designation is reasonably necessary to achieve the objective of the requiring authority. However, we do not go as far as to construe "reasonably necessary" to mean "essential" as submitted by RPL as this would ignore the qualification "reasonably" and secondly, it would necessitate the local authority (or Environment Court) to determine the best site for the works whereas this is a decision for the requiring authority (section 171(1)(b)).

[95] Before we commence our discussion of the central factual matter in contention, we give the following initial findings of fact:

- (a) there is insufficient land within the aerodrome designation to develop an instrument precision approach runway and southern parallel taxiway for Code D aircraft and to develop a general aviation/helicopter precinct; and




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<sup>54</sup> QAC Closing at [70].



- (b) QAC has no firm development plans for designated land north of the main runway.<sup>55</sup>

*Discussion and findings*

[96] RPL and ANZL submit QAC failed to give adequate consideration to a general aviation/helicopter precinct on land north of the main runway within the aerodrome designation.

[97] Mr Sachman gave conceptual evidence that reflected his comprehensive airport planning experience, but at times demonstrated a lack of local knowledge. He canvassed several possible permutations for a northern precinct and while we refer here only to his key points we have considered all of his evidence. Mr Sachman supported a northern precinct as it would separate scheduled and non-scheduled aircraft operations on either side of the main runway. In his opinion the separation of these services would have greater operational efficiency<sup>56</sup> and would entail less risk of foreign object debris on the taxiway.<sup>57</sup> We note that he was critical of the aircraft type selected as the basis of planning building and infrastructure requirements, and secondly the forecasting undertaken for components of the aeronautical businesses.<sup>58</sup>

[98] It was his evidence that use by general aviation, helicopter and corporate jets of the southern parallel taxiway would cause delays both to scheduled airlines and also to helicopters using the proposed southern FATOs. Delays would also be experienced as a consequence of:

- (a) 60% of all helicopter departures involving flight paths to the north and across the main runway;
- (b) the co-location of the helicopter facility within the fixed wing operating area;
- (c) the location of a second passenger terminal (FBO) between the general aviation and corporate jet facilities entailing complicated aircraft operations; and

<sup>55</sup> Transcript at [995] where QAC's former Chief Executive Officer, Mr S Sanderson discusses about maintaining the land for a buffer or perhaps to develop activities not sensitive to noise.

<sup>56</sup> Sachman EiC at [18-28].

<sup>57</sup> Sachman EiC at [35].

<sup>58</sup> Sachman EiC at [29-65].



(d) use by scheduled and non-scheduled operators of the new parallel taxiway.

[99] Finally Mr Sachman expressed the opinion that the proposed southern FATOs and parallel taxiway would not comply with the Civil Aviation Authority's advisory circulars. Because these allegations were not directly addressed by QAC in evidence or in the joint conferencing of expert witnesses, the Environment Court commissioned a report from the Civil Aviation Authority in response. A report was prepared by Mr M Haines, the manager of the Aeronautical Services Unit of CAA, who was then summonsed to attend the hearing.

[100] In his report Mr Haines confirmed that the proposed parallel taxiway complies with the separation distances in the CAA advisory circular (the advisory circulars being guidance materials). If simultaneous visual meteorological conditions operations are not allowed then the separation distance of a FATO from a runway or taxiway would not apply.<sup>59</sup> He foresaw no safety based reason which would prevent QAC from obtaining the appropriate certification should the southern precinct be developed.<sup>60</sup>

[101] Furthermore Mr Haines presented a quite different evaluation to that of Mr Sachman on certain key points of evidence. In his opinion locating general aviation north of the main runway could increase vehicle traffic across the main runway and could increase the risk of foreign object debris being deposited and separately the risk of runway incursions.<sup>61</sup> Air traffic controller, Mr B Macmillan, evidence was that helicopters departing the Airport in any direction from the southern and northern precincts would initially occupy the main runway.<sup>62</sup>

[102] While Mr Sachman gave detailed evidence comparing the flight paths for helicopters from northern and southern FATOs, we find this evidence to be of limited assistance as we have not accepted his concept plans for a precinct north of the main runway. All airport planners agreed that there are two peak periods of air traffic movement (early morning and mid to late afternoon). Outside of these periods there

<sup>59</sup> Report dated 9 July 2012 at [14-17].

<sup>60</sup> Transcript at [246].

<sup>61</sup> Report dated 9 July 2012 at [12-25].

<sup>62</sup> Macmillan Rebuttal (29 May 2012) at [15].



would be five to ten scheduled airline movements per hour during which helicopter operations could occur provided that there is no simultaneous use of the runway.<sup>63</sup>

[103] It is noteworthy that Mr Sachman (or RPL) does not give a substantive response to the operational reasons given by QAC for locating a helicopter facility south of the main runway.<sup>64</sup> Several issues present themselves against a northern precinct, including the transportation of dust into helicopter hangars carried by the prevailing westerly winds and the stronger lower frequency southern winds, increased exposure to the winds from the south and west during helicopter take off and landings, increased runway occupancy by helicopters to minimise or reduce exposure to prevailing winds; the geographical constraints north of the cross wind runway and the desirability for flight-paths over TALOs to be unobstructed by stacked (parked) helicopters.<sup>65</sup> All these are important factors which lead to the adoption by QAC of a southern precinct.<sup>66</sup>

[104] Having considered Mr Sachman's evidence, we gained no clear impression as to the relative operational efficiencies of locating a helicopter facility on either the north or south side of the main runway.

[105] For QAC we heard from Mr A Shaw of Oceania Aviation Ltd and Mr P West of Helicopters Queenstown Ltd who gave evidence as to why a northern helicopter facility was not suitable, and in Mr West's opinion, potentially unsafe.<sup>67</sup> The evidence Mr West gave in cross-examination impressed upon us the need not to over generalise when considering the operational efficiency of the two alternative precincts. Mr West's opinions were on matters well within his competence and experience as a helicopter pilot and on operational matters we prefer his evidence to that of Mr Sachman. (RPL did not call evidence from a helicopter operator).

***Restricting the use of RPL land for a 15.5m distance from the common boundary***

[106] While explored in cross-examination with QAC witnesses, no evidence was led on behalf of RPL as to what restrictions were proposed on this 15.5m strip of designated land including its intended purpose – although it is our understanding that this area would be to accommodate part of the obstacle clearance width for a Code D parallel

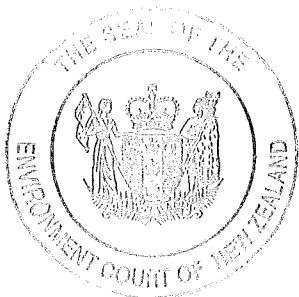
<sup>63</sup> Transcript at [357, 378].

<sup>64</sup> Sachman EiC at [76].

<sup>65</sup> West EiC and Rebuttal (in general).

<sup>66</sup> Morgan Rebuttal at [102-105].

<sup>67</sup> West EiC at [14], and Rebuttal in general.



taxiway. The relevance of this issue is moot given our decision is to cancel in part the NOR.

[107] That said, section 176 RMA would, subject to QAC approval, allow RPL to use designated land, although its use seems unlikely given Mr Morgan's advice that an airport security fence would be erected around the perimeter of the aerodrome as it is a security requirement of an international airport. And secondly, that a ring road, whether formed or not, is required for maintenance and inspection vehicles.<sup>68</sup>

***The relocation of some or all of the general aviation (including flightseeing) and helicopter facilities from the Airport***

[108] RPL and ANZL submit QAC failed to give adequate consideration to a possible relocation of general aviation (including flightseeing) and helicopter facilities from the Airport.<sup>69</sup> ANZL supports its submission relying on the evidence of Mr Morgan who said that the increased demand for scheduled passenger services would eventually constrain the airspace. ANZL did not identify any alternative locations for general aviation or a helicopter facility but said QAC should now consider any future land and airspace constraints and prioritise the elements of its business that it wishes to retain.<sup>70</sup>

[109] It was not suggested that the airspace constraints are such that there is an immediate need to relocate general aviation/helicopter facilities.<sup>71</sup> ANZL has not undertaken work to identify when any future airspace constraints may impact the operational efficiency of the Airport, rather it was Mr Morgan's "perception" that these constraints may arise.<sup>72</sup> We are not satisfied on the basis of his evidence that either the airspace is, or will be at some stage in the future, constrained. Airspace management is the responsibility of Airways New Zealand and we anticipate there could be a number of responses including, but not limited to, relocating elements of the aeronautical businesses from, or constraining their development at, Queenstown Airport. We do not consider QAC remiss for not exploring off-site locations for part of its aeronautical business.

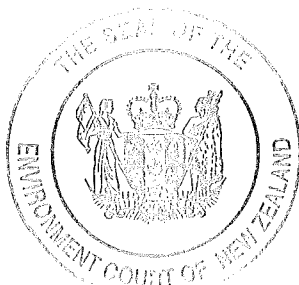
<sup>68</sup> Transcript at [276-279, 325].

<sup>69</sup> RPL Opening Submissions at [7.4].

<sup>70</sup> Transcript at [218-219].

<sup>71</sup> Transcript at [220].

<sup>72</sup> Transcript at [223-4].



***Consideration of individual components of the work being accommodated within the existing aerodrome designation***

[110] Mr Munro's evidence was that the aeroclub and flight-training operators presently located on the northern side of the main runway have greater flexibility around where they locate and that these activities could operate on or off the Airport.<sup>73</sup> Their location would affect, to some small extent, the area required for the designation.<sup>74</sup> Mr Sachman gives similar evidence.<sup>75</sup> QAC does not appear to have given consideration in its NOR to whether the aeroclub and flight-training operators can locate within the existing aerodrome designation.

[111] Furthermore, there appears to be no consideration given by QAC as to whether the provisioning for a future instrument precision approach runway or Code D aircraft operations can be made within the existing aerodrome; no doubt this is because it considered these facilities in conjunction with the proposed southern precinct.

***Overall Conclusion***

[112] We conclude that there is an array of factors, including safety, which militate against a northern location for a helicopter facility. Of these cost (to the helicopter operator and other users of the Airport) is an important consideration, but it is not determinative. Section 171(1)(b) is satisfied as we find that adequate consideration was given to alternative location of the helicopter facility.

[113] Likewise we are also satisfied that adequate consideration was given by QAC to alternative locations for corporate jets and that it is operationally efficient to locate these adjacent to the proposed Code C taxiway south of the main runway.

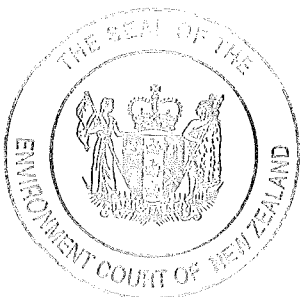
[114] Apart from the April 2007 study, none of the studies looked at the option of splitting the various aeronautical businesses north or south of the main runway within the existing aerodrome designation. But in the absence of any contrary evidence we conclude, like corporate jets, it is operationally efficient to locate fixed wing operators adjacent to a proposed Code C taxiway.

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<sup>73</sup> Transcript at [338].

<sup>74</sup> Transcript at [338].

<sup>75</sup> Sachman EiC at [68].



[115] We are also satisfied that under section 171(1)(c) that a general aviation/helicopter precinct south of the main runway is reasonably necessary for achieving the NOR's objective.

**Issue: Is the work and designation reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought (section 171(1)(c))?**

[116] Two sub-issues arise:

- (a) the extent to which the work and designation are reasonably necessary for achieving the objective of QAC; and more generally
- (b) whether the works or designation are reasonably necessary for achieving the objective of QAC.

***Extent of works or designation***

***Introduction***

[117] The area of land required for the designation was influenced by two key decisions by QAC:

- (a) the type of runway (whether an instrument non-precision or instrument precision runway); and
- (b) the aircraft design parameters (whether Code D aircraft would operate at the Airport).

[118] We heard from Mr Morgan, for ANZL, who addressed, amongst other matters, the likelihood of Queenstown Airport runway becoming an instrument precision approach runway and of Code D aircraft operating at this Airport. His evidence is important in that it highlights QAC's assumptions that he says are wrong and, if he is correct in this, these assumptions may have had a significant bearing on the decision-making by QAC. QAC's 2010 Master Plan records:

However, on the basis of the recent recommendation that QAC should, in future, progressively adopt planning parameters for a precision approach runway, a recent decision has been made to revise the location for the future parallel taxiway to be at precision separation.



This greater separation (75m) will position the taxiway significantly closer to the airport boundary at the southern side, adjacent to Lot 6, consuming all of the potentially available land for a SE Zone (74m) shown in **Figure 3-3**, and negating any possibility for limited precinct development for fixed wing GA that was indentified in the 2007 study.

[119] And later:

It is considered quite possible that some future [aircraft] types that develop from the current B737 and A320 families may be well suited to operate on the relatively short Queenstown runway but will have wider wingspans to improve lift and fuel efficiency, “creeping” beyond Code C dimensions into the next category, Code D.

Therefore, QAC has decided to adopt Code D precision runway separation and clearance distances for the taxiway, being:

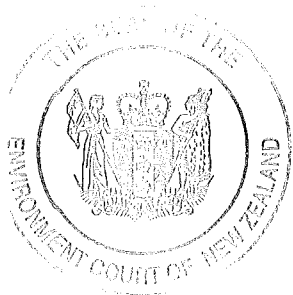
- Runway-taxiway separation 176.0m
- Taxi-way-object clearance 40.5m<sup>76</sup>

[120] If, as ANZL contends, the appropriate main runway strip width is that for an instrument non-precision runway, that is 150m, then the separation distance between the runway centre line and the taxiway centre line for Code C aircraft is 93m, and for Code D aircraft, 101m.<sup>77</sup> Taken together with a taxiway object clearance of 26m or 40.5m for Code C or Code D aircraft respectively, the parallel taxiway for Code C or Code D aircraft can be located well within the existing aerodrome designation. In the case of a Code C parallel taxiway, an 82m wide strip of land would still be available outside of the taxiway and within the airport designation (and boundary) and for Code D there would be a 59.5m wide strip available.

[121] If Queenstown Airport’s main runway were to become an instrument precision runway with a runway strip width of 300m, then the runway and taxiway separation distance including the object clearance for Code C aircraft would be 194m or 216.5 for Code D aircraft. As Lot 6 is situated some 201m from the main runway centerline, a

<sup>76</sup> 2010 Master Plan at p [13].

<sup>77</sup> Mr Morgan gave his supplementary evidence on 25 July 2012, after Messrs Morgan and Sachman. The line of cross-examination pursued by Mr Nolan in relation to Mr Munro proceeded upon a different understanding of the separation distance between the centreline of the main runway and taxiway (Transcript at [316-321]).



Code C parallel taxiway including the object clearance could be accommodated within the existing aerodrome designation. However, under a Code D parallel taxiway and object clearance scenario, the aerodrome designation would extend 15.5m into Lot 6.<sup>78</sup>

***Precision approach runway***

[122] Queenstown Airport is an instrument non-precision approach runway. CAA define a non-precision approach runway as being an instrument runway served by visual aids and a non-visual aid providing directional guidance adequate for a straight-in approach.

[123] A precision approach runway is an instrument runway served by (relevantly) Instrument Landing System (ILS) and visual aids intended for operations with a decision height not lower than 60m (200ft) and either a visibility of not less than 800m or a runway visual range not less than 550m.<sup>79</sup> An ILS controlled approach is a precision approach system and typically uses a combination of radio signals and high intensity lighting arrays to guide an aircraft approaching and landing on a runway.<sup>80</sup> This ground-based approach system requires a wider runway strip than a non-precision approach runway.<sup>81</sup>

[124] Three scheduled Queenstown Airport airline operators use the flight navigation system, Required Navigation Performance (RNP) technology. RNP is an aircraft based flight navigation system that is not designed to assist pilots during the landing phase and therefore cannot be described as a near precision technology.<sup>82</sup> Pilots, at the predetermined decision height establish visual contact with the runway when making their approach; if visual contact with the runway is not established the landing must be aborted.

[125] It was Mr Morgan's evidence for ANZL that Queenstown Airport would not become an instrument precision approach runway because of *inter alia* terrain constraints inhibiting ILS controlled approaches.<sup>83</sup> However, QAC is not suggesting

<sup>78</sup> Morgan Supplementary at [5.28]. All planning aviation witnesses agree that the Code D parallel taxiway and object clearance would extend 15.5m into Lot 6.

<sup>79</sup> Morgan EiC at [7.7] and supplementary evidence at [5.24].

<sup>80</sup> Morgan EiC at [7.14].

<sup>81</sup> Morgan EiC at [7.8].

<sup>82</sup> Morgan EiC at [7.24].

<sup>83</sup> Transcript at [199-200].





that an ILS controlled approach will be made operational at Queenstown Airport. Indeed, Mr Munro accepts Mr Morgan's description of RPN and ILS technology.<sup>84</sup> Rather it is his advice that QAC protect for the possibility of a precision approach runway in the future.<sup>85</sup> As Mr Munro considers a RNP approach to be a "near-precision" approach, he recommends that airports with RNP operations adopt standards equivalent to those for a precision approach runway (i.e. as if ILS were installed).<sup>86</sup> His evidence was that a recent CAA circulatory advice strongly supports the adoption of standards for an instrument precision runway.<sup>87</sup>

*Discussion and findings - precision approach runway*

[126] No evidence was adduced that the scheduled airline operators flying into Queenstown Airport using RNP technology would (or sometime in the future could) operate down to 60m (200ft) decision height – being the standard for a precision approach runway, (Category I).<sup>88</sup> As we have no evidence to the contrary we accept ANZL's submission that similar landing outcomes as would occur with ILS technology do not, and would not, occur at Queenstown Airport for safety reasons.<sup>89</sup> While the approved decision height for RNP is 300 feet, for its own operating procedures, Air New Zealand has decided to use 400 feet as an additional safety precaution which is well above the minima specified for instrument precision runways.<sup>90</sup> The introduction of RNP technology has not displaced what Mr Munro describes as the "long-standing practical reality" that flight operations in and out of Queenstown Airport are conducted with visual procedures due to the proximity of mountainous terrain.<sup>91</sup> It follows that we accept Mr Morgan's evidence that:

... because of the terrain constraints inhibiting ILS approaches the final stage of an approach needs to be conducted by assuming a visual approach at 400ft above ground level, which also means no more than a 150m runway strip width is needed.<sup>92</sup>

<sup>84</sup> Morgan Rebuttal at [156].

<sup>85</sup> Munro Rebuttal at [153].

<sup>86</sup> Munro EiC at [157].

<sup>87</sup> Munro EiC at [158-9] discussing CAA AC 139-6, Rebuttal at [76].

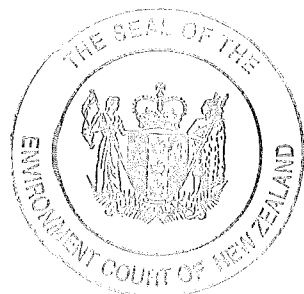
<sup>88</sup> Morgan Supplementary at [5.24], referring to AC139-6.

<sup>89</sup> Nolan, Closing Submissions at [4.41].

<sup>90</sup> Transcript at [200].

<sup>91</sup> Munro EiC at [151].

<sup>92</sup> Morgan Supplementary at [5.40].



*Code D aircraft*

[127] In QAC's application, the centerline separation distance between the main runway and the proposed southern taxiway is based on the largest Code D wingspan.

[128] Jet aircraft operating at Queenstown Airport fall into the Code C category, meaning that they have a wingspan of between 24 and 36m (but not including 36m). In his evidence-in-chief Mr Munro expands on the need to plan on the basis for aircraft with wider wingspans. He considers it plausible that future types of aircraft will be developed from the current Code C B737 and A320 families to aircraft that will have wider wingspans to improve lift and efficiency, thus "creeping" beyond the Code C dimensions into the next category, Code D.<sup>93</sup>

[129] Code D aircraft fall into two categories, those with smaller or larger wingspan between 36m to 52m. Code D aircraft with a larger wingspan would not likely operate at Queenstown Airport because of the physical size of the aircraft. However, Mr Munro considered it likely that at some time in the future a smaller Code D aircraft would operate and gave the timeframe for this to be towards the end of the 2020s or into the 2030s.<sup>94</sup>

[130] If planning is to consider not only what is known about the future, but also what is unknown but realistically possible, then Mr Munro recommended, and QAC adopted, precision runway separation and clearance distances for the Code D parallel taxiway.<sup>95</sup> In that regard Mr Munro emphasised the need to future-proof the Airport.<sup>96</sup>

[131] That said, Mr Munro agreed in response to the court that there is no nexus between the use of Code D aircraft and the attainment of the NOR objective.<sup>97</sup> Indeed "growth projections are, in the timeframes we are looking at, based on aircraft growth size, which is broadly expected to be achievable through aircraft up to a Code C size".<sup>98</sup>

[132] While it is not discussed in the NOR or evidence of QAC witnesses, the existing airside facilities would likely need to be upgraded to accommodate Code D aircraft.

<sup>93</sup> Munro EiC at [93-105, 167-173].

<sup>94</sup> Transcript at [330].

<sup>95</sup> Munro EiC at [171].

<sup>96</sup> Munro Rebuttal at [83].

<sup>97</sup> Transcript at [341].

<sup>98</sup> Transcript at [341-2].



This would include increasing both the width of the runway and its bearing capacity which would involve the reconstruction of the runway.<sup>99</sup> Code C aircraft operating at Queenstown Airport do so with CAA approval as the required runway width is 45m; not 30m as presently exists. Mr Morgan picks up on this also when answering the court's questions. For Code D aircraft to operate at Queenstown Airport the runway may need to be reconstructed, and possibly lengthened to accommodate the bigger planes.<sup>100</sup> He was unaware of any airport in the world where Code D aircraft operated on a 30m wide runway (with the exception of military aircraft) and at the very least the runway would need to be widened to 45m.<sup>101</sup> He said that in order to operate a Code D aircraft the runway would need to be widened and that, depending on the aircraft flying into Queenstown, the runway may also need to be lengthened and strengthened with fillets being provided at each end of the runway.<sup>102</sup> A reconfiguration of the terminal apron to accommodate the larger wingspan of these aircraft may also be required.

[133] Agreeing with Mr Morgan's evidence, RPL's aviation planner Mr Sachman recommended adopting Code C as the relevant planning parameter for aircraft design.<sup>103</sup> He noted the respect held by aircraft manufacturers for the Codes when designing airplanes in order to avoid impact on airport infrastructure.<sup>104</sup> He recommended planning for Code C aircraft, and if the use of Code D aircraft eventuates then to seek approval from CAA to operate the aircraft at this Airport.<sup>105</sup> Mr Munro accepted that it was one option to seek CAA approval, noting that if given, approval would involve restriction on the concurrent use of the runway and taxiway.<sup>106</sup>

#### *Discussion and findings – Code D aircraft*

[134] A smaller Code D aircraft of the type described by Mr Munro does not presently exist. (We exclude from our consideration the B757s which do not fly into Queenstown route and we were told are being phased out to be replaced by new generation Code C B737s and A320s).<sup>107</sup> Mr Munro's evidence proceeds very much on the basis that the

<sup>99</sup> Morgan EiC at [7.20-7.21].

<sup>100</sup> Transcript at [228-9].

<sup>101</sup> Transcript at [229].

<sup>102</sup> Transcript at [306].

<sup>103</sup> Transcript at [353].

<sup>104</sup> Transcript at [354].

<sup>105</sup> Transcript at [353-4].

<sup>106</sup> Transcript at [331].

<sup>107</sup> Transcript at [355].



Airport should plan for new generation aircraft which might emerge sometime in the future. While this might include airlines seeking to operate Code D aircraft at Queenstown Airport (and the evidence tends against the proposition), there is no suggestion of Code C aircraft being phased out – indeed the converse appears to be the case. On this matter we prefer the evidence of Mr Sachman that manufacturers will respect existing Codes when planning new and upgraded aircraft so that these can operate within the constraints of existing infrastructure at airports around the world, including Queenstown.

[135] If smaller Code D aircraft with improved lift and fuel efficiency were realistically possible, then we would have expected ANZL to support provision within the designation for this or at least explain why it could not. ANZL, while supporting within reason the need to “future proof” airports, does not consider it necessary (or appropriate) to provide for Code D aircraft at Queenstown.<sup>108</sup>

*Sub-issue - whether the works or designation is reasonably necessary for achieving the objective of QAC*

[136] The objective of the NOR is stated thus:

... QAC’s specific objective for the NOR is to provide for the expansion of Queenstown airport to meet projected growth while achieving the maximum operational efficiency as far as possible.<sup>109</sup>

[137] QAC’s planning witness, Mr J Kyle, gave evidence that the NOR has a single objective and we accept his evidence.<sup>110</sup> The objective is amplified upon in the NOR where it is stated that the NOR is required to ensure the continued safe and efficient functioning of the Queenstown Airport through expansion of the aerodrome to meet projected growth.<sup>111</sup> Growth means projected passenger and operational growth.<sup>112</sup>

[138] Mr Kyle conceded no connection was made by QAC’s airport planner with an instrument precision runway. The provisioning is made because it was considered

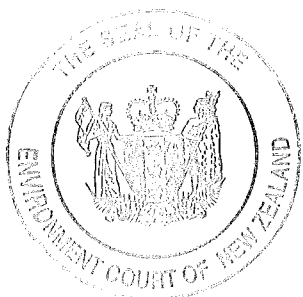
<sup>108</sup> ANZL Opening Submissions at [2.6].

<sup>109</sup> NOR Annexure 2, Clause 2.1.4.

<sup>110</sup> Counsel for QAC in closing submitted that there were two objectives; we do not accept this submission. Moreover the submission is not supported by the evidence or the NOR.

<sup>111</sup> NOR Form 18 at [1.3].

<sup>112</sup> NOR Form 18, Annexure 1, Clause 1.1.1.



“sensible” to do so.<sup>113</sup> While acknowledging that it fell to him to say how these works fit with the objective, we can find no considered evaluation of this matter. Expressed in general terms he concludes that the designation is reasonably necessary to “enable QAC to meet its stated objective”.<sup>114</sup>

### ***Conclusion***

[139] On the issue of whether the works or designation is reasonably necessary for achieving the objective of QAC the evidence is clear; within the planning horizon under consideration there is no nexus between the NOR objective and enablement of Code D aircraft operating at Queenstown Airport.<sup>115</sup> The predicted growth is able to be achieved using Code C aircraft.<sup>116</sup>

[140] For the same reason we find that there is no nexus between the NOR’s objective and the provisioning for an instrument precision approach runway.

[141] The consequences of the findings are this: the provision of a instrument non-precision approach runway and Code C parallel taxiway would reduce the lateral extent of the land required by 97.5m along the approximately 1,000m length of the common boundary with RPZ, being a total land area of about 9.75 hectares. Put another way, the land required for the designation would be reduced from around 160m into the RPZ to around 60m. We are not, however, required to approve the Code C parallel taxiway. Land within the existing designation is available for this purpose and it is a matter for QAC to decide whether to construct the same.

[142] Subject to what we say at [164] in all other respects we conclude that the work and designation is reasonably necessary for achieving QAC’s objective. We prefer Mr Munro’s assessment of the comparison of area requirements for the northern and southern precincts as it comprehensively addresses the proposed building and infrastructure.<sup>117</sup> We found limited assistance in the area requirements produced by RPL’s witnesses as these do not include all components of the aviation precinct or use

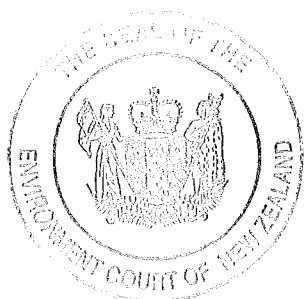
<sup>113</sup> Transcript at [871].

<sup>114</sup> Kyle EiC at [7.72-7.76].

<sup>115</sup> Transcript at [340-1].

<sup>116</sup> Transcript at [342].

<sup>117</sup> Munro Rebuttal, Table 3.



different measurements to assess the components. When reconciled, as Mr Munro has done, we are satisfied that any difference between the witnesses' assessments is at best inconsequential.<sup>118</sup>

[143] Finally, we find the proposal to extend the designation to accommodate an instrument precision approach runway and Code D parallel taxiway is inconsistent with objective 9.4.2 and policy 9.5.2 of the RPS which encourages development that maximizes the use of existing infrastructure while recognising the need for more appropriate technology. Furthermore, QAC has land within its existing designation which, undeveloped, could accommodate a instrument precision approach runway and Code D parallel taxiway.

#### **Effects on the environment of allowing the requirement**

[144] Section 171 provides that when considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement whilst having regard to the matters in subsection (1)(a-d).

[145] There are three categories of effects. These are:

- (a) noise;
- (b) landscape and amenity; and
- (c) traffic and transportation.

#### **Noise**

##### ***General aviation and helicopter noise***

[146] The noise generated by helicopters was the focus of evidence given by three very experienced noise experts – Mr Hunt who gave evidence on behalf of RPL, Mr C Day for QAC and Mr N Hegley for QLDC. While the noise model inputs used by the witnesses were agreed, Mr Hunt and Messrs Day/Hegley differed on the relevance of the model outputs when considering the degree and relative effect of helicopter noise if one or other of the general aviation/helicopter precincts are developed.

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<sup>118</sup> See Munro Rebuttal dated 29 April 2012 (in general).



[147] In his evidence-in-chief, Mr Day describes the Miedama and Oudshorn methodology used by the noise experts to compare the noise effects on local residents from three different precinct locations.<sup>119</sup> This methodology has been derived from a large number of studies undertaken to establish the relationship between aircraft noise levels and residential responses to this noise. The outcome of these studies is a graph which plots the percentage of people highly annoyed (over a range of 0 to 50%) against aircraft noise levels (over a range from 40 dBA Ldn to 75 dBA Ldn).

[148] The noise experts, assisted by the planners, arrived at agreed densities for the type of development proposed in each activity area around the Airport. They then applied predicted occupation levels for each type of development to calculate the number of people who would end up living in each area for the three bands of aircraft noise (50 – 55 dBA Ldn, 55 – 60 dBA Ldn and 60 – 65 dBA Ldn). In the final step, they used the Miedama and Oudshorn graph to predict the number of highly annoyed people in each band of each area.

[149] Following a number of iterations, Mr Day and Mr Hunt finally produced an agreed table of the numbers of people predicted to be highly affected within each noise band in the three precinct options.<sup>120</sup>

[150] Based on Mr Day's approach irrespective of the location of the general aviation/helicopter precinct, there will be people within the wider Frankton Flats area (in particular Frankton and PC19) predicted to be highly annoyed by noise. While the number of people who will be highly annoyed will be slightly less with a northern precinct, in his opinion the difference in those affected between the precincts is not significant.<sup>121</sup>

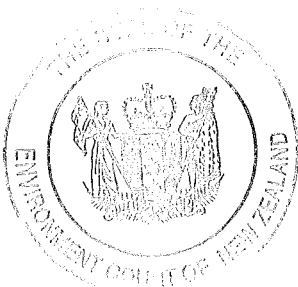
[151] Mr Hunt's evidence proceeded on the basis that noise would concentrate in the vicinity of the TALOs – the actual point that helicopters land and depart.<sup>122</sup> In contrast with Mr Day, Mr Hunt does not include the number of highly annoyed persons who will live in the 50-55 dBA Ldn noise band. He considers that the noise in this band will be dominated by the sound of aircraft from the main runway, and that these people would

<sup>119</sup> Day EiC at [8.0].

<sup>120</sup> Exhibit 5.

<sup>121</sup> Day EiC at [61]. While the outputs in the EiC subsequently changed, we did not understand this to have affected Mr Day's opinion.

<sup>122</sup> Transcript at [796].



not be sensitive to the noise generated from the general aviation/helicopter precinct.<sup>123</sup> Mr Hunt finds it to be counter-intuitive that the number of highly annoyed persons in the 50 to 55 dBA Ldn noise band south of the main runway will increase if the general aviation/helicopter precinct is located north of the main runway. Again he says this points to the greater effect of noise from runway aircraft.<sup>124</sup> (Mr Day points out that the reason for this increase is that aircraft operations in the northern precinct result in a much wider 50 to 55 dBA Ldn band to the south and that as a result, more people are affected. This increase is offset by fewer people living in the much narrower 55 to 60 dBA Ldn band).<sup>125</sup>

[152] It is also Mr Hunt's opinion, that the noise generated by helicopters along agreed flight paths has an inconsequential effect on the overall shape of the 50 and 55 dBA Ldn noise contours<sup>126</sup> because helicopter noise is dispersed along the different flight paths.<sup>127</sup> Mr Day disagrees, pointing out that except for at the eastern border, the noise levels in the RPZ are being determined by the general aviation and helicopters using the cross-wind runway.<sup>128</sup>

[153] Taking a disaggregated approach and concentrating on RPZ, Mr Hunt concludes that if the general aviation/helicopter precinct was located south of the main runway, then more people would be highly annoyed within the RPZ than compared with those who would be highly annoyed in Frankton (if the precinct is retained in its present location) or PC19 (if the precinct was located north of the runway). On that basis, in his opinion, the southern precinct is the least preferable option.<sup>129</sup>

*Discussion and findings – general aviation and helicopter noise*

[154] The noise from helicopters travelling along the flight paths has been modelled and these levels are reflected in the noise contours in PC35.<sup>130</sup> The modelling includes with or without the Lot 6 option. The noise contours in the vicinity of the RPZ (including Lot 6), are a record of noise emanating from both the main runway and

<sup>123</sup> Transcript at [791, 798].

<sup>124</sup> Transcript at [791].

<sup>125</sup> Transcript at [800].

<sup>126</sup> Transcript at [794].

<sup>127</sup> Transcript at [797].

<sup>128</sup> Transcript at [800].

<sup>129</sup> Hunt EIC at [65].

<sup>130</sup> Transcript at [579].





general aviation and helicopters using the cross-wind runway.<sup>131</sup> Modelling includes, but is not limited to, the noise and energy levels generated at the proposed FATOs and TALOs. Noise levels increase in proximity to the FATOs and TALOs and the air noise boundary show this change to be relatively localised.<sup>132</sup> Irrespective of where the aviation/helicopter precinct is located noise will be generated from this source. When under or near a flight path persons within the Frankton Flats area generally will be exposed to noise from general aviation and helicopters; the effects of noise are not restricted to the FATOs or TALOs.

[155] The incidence of residents within the 50-55 dBA Ldn noise band who are predicted to be highly annoyed by noise, even if the percentage is less than those who live in the higher noise bands, is of no less relevance than those highly annoyed people who live in these higher noise bands. Irrespective of where they live a percentage of people will be highly annoyed by noise.

[156] Of relevance also are the differences between the numbers of people predicted to be highly affected from noise if the general aviation precinct was to be retained in its present location compared with the precinct being located at the two alternative locations. On Mr Day's approach for the total number of people highly annoyed with the precinct in its current location, a greater number of people within the RPZ are predicted to be highly annoyed than compared with the people located at PC19 or Frankton. But this would be the case irrespective of the location of the precinct. Messrs Day and Hegley's opinion is that when the total number of people who are highly annoyed are aggregated there is little difference where the precinct is located.

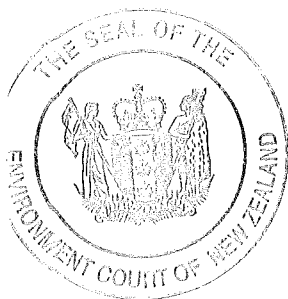
***Overall Conclusion – general aviation and helicopter noise***

[157] In PC35 (before this division of the Environment Court), RPL proposed, and the other parties agreed on mitigation measures for the attenuation of noise in defined areas inside of the 55 dBA Ldn contour in Activity Areas 6 and 7 of the RPZ to allow for residential and educational buildings. We are satisfied that with these measures in place, together with the amendments proposed by the Environment Court in the Interim Decision on PC35, the extension of the Airport will not preclude opportunities for future development within the RPZ. When compared with people living either now or in the

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<sup>131</sup> Transcript at [800].

<sup>132</sup> Transcript at [800].



future in Frankton or in residential areas north of the main runway, more people living within RPZ are predicted to be highly annoyed by noise as a consequence of growth in aircraft movements and this is so irrespective of the location of the general aviation/helicopter precinct. Overall we do not find this aspect of the NOR to locate the helicopter precinct on the southern side of the airport to be in tension with the planning instruments.

### *Other noise matters*

#### *A single event level approach*

[158] RPL is also concerned with the amenity effects of single event noise levels from helicopters and fixed wing aircraft on short take off along the cross-wind runway. Through cross-examination counsel explored with Mr Day the usefulness of the single event level as an assessment method.<sup>133</sup> Mr Day's response was that while single event levels are used to assess sleep disturbance effects at night (and that is its purpose), it is not a tool employed by noise experts to evaluate either the effects of noise on amenity nor is it an appropriate response to amenity effects. Mr Day did not support RPL's proposition that it could or should be used for this purpose and he did not see it assisting the evaluation of the best practicable option to mitigate noise.<sup>134</sup> Mr Hunt did not give evidence supporting the use of the single event levels for these purposes.

[159] In the absence of evidence to support the proposition that single event levels may be used as an alternative method to assess the effects of daytime noise, we accept the evidence of Mr Day.

#### *Unplanned engine testing*

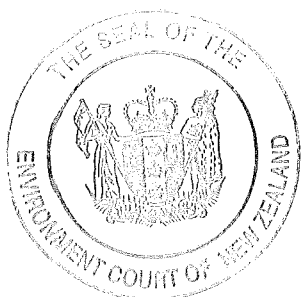
[160] We accept Mr Day's evidence that unplanned engine testing is not a significant issue. The incidence of this is not expected to be higher than once per year and is to be managed through the Noise Management Plan provisions that are the subject of PC35.

#### *Earth Bund*

[161] The reinstatement of an earth bund on the south side of the aerodrome was supported by Mr Hunt as a form of mitigation should buildings within the extended

<sup>133</sup> Transcript at [98].

<sup>134</sup> Transcript at [464-479].



aerodrome designation not be constructed in a manner to form an acoustic barrier.<sup>135</sup> Mr Day's evidence was that the difference with or without the extant bund would be 1 dBA, a sound level which is not detectable. If additional mitigation is required he recommended an acoustic fence be built.<sup>136</sup>

The need for additional noise attenuation is to be assessed at the outline plan of works stage, and directions will be given that QAC include a condition in the designation to give this effect.

### **Traffic management**

[162] We heard from three expert witnesses on the topic of traffic management: Mr N Williams (QAC), Mr S Woods (QLDC) and Mr T Penny (RPL). At the commencement of their evidence a second joint witness statement was tabled recording their agreement on all outstanding traffic management issues.<sup>137</sup>

[163] In particular the witnesses were agreed on the following:

- (a) the cross-section of the western access road connecting the general aviation and helicopter precinct with Hawthorne Drive;
- (b) that 450-600 car park spaces are required to service the 25,000m<sup>2</sup> floor area of the proposed precinct's buildings;<sup>138</sup>
- (c) in addition to land required for the western access and its associated landscaping, 1.3 – 1.7 hectares of land is required for carparking, circulation and landscaping and not 5.6 hectares as previously estimated; and
- (d) the balance 2.7 – 3.1 hectares along the 1 km frontage to the RPZ (being some 27-31m in depth), is no longer required for carparking, circulation and landscaping.

### ***Land surplus for carparking, circulation and landscaping***

[164] The traffic witnesses appeared to be of the view that this 5.6 hectares of land at clause (c) differed from an estimate given by Mr Munro. We are not sure that is the case,

<sup>135</sup> Hunt Rebuttal at [20-12].

<sup>136</sup> Day Rebuttal at [20-24].

<sup>137</sup> Dated 20 July 2012.

<sup>138</sup> This is estimated on the basis that 1.8-2.4 spaces per 100m<sup>2</sup> floor area.



but irrespective of that it appears that the area in the NOR required for carparking, circulation and landscaping (excluding the western access) is too large and not all of the land required is reasonably necessary to meet QAC's objective. The evidence is conflicting and it is not possible for us to reach a view as to the amount of surplus land. Consequently directions have been given that the parties file memoranda addressing whether the designation is to be cancelled in part by reducing the land area required. This should be considered in tandem with the landscape directions which may have a bearing on this extent of land required.

*Western access*

[165] The witnesses addressed a potentially quite problematic issue concerning the western-most access to the proposed general aviation/helicopter precinct. Since February 2012 RPL and the Minister of Education have entered into a contractual arrangement to buy land in the RPZ adjacent to Red Oaks Drive south of Hawthorne Drive for the purpose of establishing a secondary school.

[166] Hawthorne Drive is yet to be formed in the vicinity of the western access. When it is, the southern precinct's traffic movements will likely be restricted by a concrete median strip to left in and left out turns. Drivers wanting to turn right will be required to do a U-turn at one of two intersections controlled by traffic lights.<sup>139</sup> To the east, some 70m distance from the access, the intersection between Red Oaks Drive and Hawthorne Drive is very likely to experience significant pedestrian movement associated with children from the future secondary school crossing Hawthorne Drive. The desire to control movement across Hawthorne Drive (which will be a four lane road) is the reason for the traffic witnesses' recommendation that this intersection become signalised. The second signalised intersection is to be located some 200m west of the access in the vicinity of the Remarkables Park Town Centre and would be used by west bound Hawthorne Drive traffic wishing to enter the precinct.

[167] We have noted the heavily qualified joint statement made by the traffic witnesses – that U-turns at these intersections would be less than desirable, but technically feasible, “at least in the short term”. Mr Penny acknowledged that the U-turn would increase risk [we interpose of conflict between pedestrian and vehicular movements] and

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<sup>139</sup> Transcript at [620].



confusion at the intersections.<sup>140</sup> In his view, while physically feasible this movement is not desirable.<sup>141</sup>

[168] Critically, the traffic experts have not modelled the distribution (and timing) of traffic movement at the intersections.<sup>142</sup> Added to the traffic movement associated with the proposed southern precinct is traffic generated by PC34 – which while under appeal no change is expected to the additional 30,000m<sup>2</sup> gross floor area for retail activity that it enables.<sup>143</sup> It was faintly suggested that the risks associated with the U-turns may be managed by constructing a right turn bay at the Hawthorne Drive/Red Oaks Drive intersection. However, there has been no assessment of this facility and in any event it is beyond the scope of the NOR. Also a right turn bay would not address the ability of traffic to safely cross two lanes to reach the right turn bay over a relatively short distance between the western access and Red Oaks Drive.

[169] Because of the concerns shared by the traffic witnesses about the management of traffic, particularly in relation to Red Oaks Drive intersection, it was their view that access to the designation area would be considerably improved if the access was to connect directly to an extension of Red Oaks Drive north of Hawthorne Drive.<sup>144</sup> This would entail an extension to Red Oaks Drive over land owned by RPL - although we note that the court has no jurisdiction to direct this outcome. However, counsel for QAC agreed that the court could require the access to connect with Red Oaks Drive if this road was extended to the boundary of the aerodrome designation.

### *Discussion and findings*

[170] All this leaves the management of traffic in proximity to Red Oaks Drive in a most unsatisfactory state of affairs. Given this we were surprised by the evidence of QAC and QLDC planning witnesses. Ms Baker (for QLDC) gave evidence that from a planning perspective this outcome is acceptable. The potential environmental effects were “less than minor” and the proposal would meet “Part 2”.<sup>145</sup> There is no evidence before the court on which the court could possibly reach this conclusion. Mr Kyle for

<sup>140</sup> Transcript at [623].

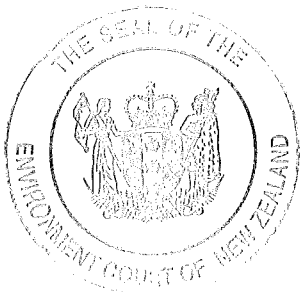
<sup>141</sup> Transcript at [620].

<sup>142</sup> Transcript at [624].

<sup>143</sup> While PC34 enables has capacity for 30,000m<sup>2</sup> gfa, we note that in PC19 Messrs Heath and Tansley agreed that within the next 20 years the likely floorspace development would be 20,000m<sup>2</sup>.

<sup>144</sup> Transcript at [613] (Williams), [619] (Penny) and [630] (Woods).

<sup>145</sup> Transcript at [973].



QAC while characterising the recommendation by the traffic experts to signalise the intersections as “game changing”,<sup>146</sup> concluded the proposed access was not necessarily inconsistent with the District Plan.<sup>147</sup> Neither witness proffered an evaluation of the plan to substantiate their opinions. In fairness to Mr Kyle and Ms Baker the issue of traffic management around the proposed school was raised for the first time during the hearing, but we would have thought these witnesses had sufficient time to consider the proposal in light of the District Plan and offer a considered opinion to the court.

[171] We find that the proposal is inconsistent with Part 14 Transport, objective 1 – efficiency and associated policies 1.1 and 1.10 and also objective 2 – safety and accessibility, and its policy 2.6. The findings are not contingent on the secondary school establishing. We consider each of these provisions in turn:

#### **Objective 1 - Efficiency**

*Efficient use of the District’s existing and future transportation resource and of fossil fuel usage associated with transportation.*

##### **Policy 1.1**

*To encourage efficiency in the use of motor vehicles.*

[172] Depending on the direction of their approach and their intended destination along the length of the designation, some vehicles could be required to travel nugatory distances in excess of 1 km to reach their destinations if an access/egress restriction is in place at the western access intersection with Hawthorne Drive. Factored up for multiple journeys, the resulting inefficiencies would clearly be at odds with Policy 1.1.

##### **Policy 1.10**

*To require access to property to be of a size, location and type to ensure safety and efficiency of road functioning.*

[173] Safety and efficiency would be severely compromised if vehicles wishing to travel west from the western access exit at Hawthorne Drive were required to turn left,

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<sup>146</sup> Transcript at [878].

<sup>147</sup> Transcript at [881].



cross two lanes of traffic over a very short distance and then complete a U-turn at the Red Oaks Drive intersection in order to achieve their objective.

### **Objective 2- Safety and Accessibility**

*Maintenance and improvement of access, ease and safety of pedestrian and vehicle movement throughout the District.*

#### **Policy 2.6**

*To ensure intersections and accessways are designed and located so:*

- ...
- *they can accommodate vehicle manoeuvres.*
- ...
- *are separated so as not to adversely affect the free flow of traffic on arterial roads.*

[174] There would be considerable risks for the safety of pedestrian and vehicle movements if the only way for vehicles wishing to travel west after exiting the western access was to do a U-turn at the Red Oaks Drive/Hawthorne Drive intersection.

[175] The explanation and reasons for this objective also note that ... *the Council is committed to investigating the opportunity for new roads on Frankton Flats....to reduce the impact of development on State Highway No 6 and improve access to the airport and other activities.*

[176] The link between Frankton Flats and the Airport (as well as Remarkables Park) will be via the EAR and Hawthorne Drive. It seems highly likely that the EAR will be afforded arterial road status. The court is concerned that if vehicles were permitted to exit the aerodrome's western access east bound onto Hawthorne Drive this would adversely affect the free and safe flow of traffic on Hawthorne Drive because of:

- the western accesses proximity to the Red Oaks Drive intersection;
- vehicles wanting to turn right into Red Oaks Drive or do a U-turn to get back to Frankton changing lanes over a short distance; and



- the potential for U-turns to cause crashes.

[177] Similar safety and disruption concerns arise in respect of west bound vehicles on Hawthorne Drive making U-turns at a (to be) signalised intersection at (or near) Riverside Road in order to get back to the western access.

[178] These concerns are compounded by the likelihood that some drivers using the general aviation/helicopter precinct may be visitors unfamiliar with local roads and, in some cases, driving on the left hand side.

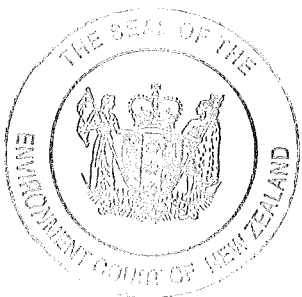
[179] We have formed the preliminary view that there should be a condition that the western access be used for left hand entry turns only and that egress should be via the eastern access only. We recognise that there may be timing issues around construction of the latter for exercising the designation. Because this subject arose only during the course of the hearing and the evidence may have been incomplete we have extended the parties the further opportunities made in our directions. We have also formed the view that the optimal solution might be for the general aviation/helicopter precinct to have ingress and egress to an extension of Red Oaks Drive north of Hawthorne Drive to the aerodrome boundary. However we understand that as no certainty attaches to this possibility it cannot be relied on.

[180] If there are difficulties with this proposal then leave will be reserved for the parties to call further evidence addressing traffic management this time in an holistic fashion having regard to the relevant traffic factors; and there are a number. The evidence is to include future volumes [vehicles/pedestrians including from any future secondary school, RPZ (including PC34), and southern precinct], intersection spacing, signalisation, Red Oaks Drive extension, EAR construction timing, the function of the site's eastern access onto the EAR, street pattern legibility and driver familiarity.

## **Landscape and visual amenity**

### ***Introduction***

[181] The relevant visual and amenity effects of the NOR are those experienced from within the RPZ and from public places including the Airport. In this regard we heard from three landscape architects; Mr D Miskell (QAC), Mr B McKenzie (RPL) and Dr M





Read (QLDC). The issues arising from the proposed development are best captured by QLDC's landscape architect, Dr M Read, as follows:

Currently the most striking aspect of Lot 6, traversed by Mr McKenzie in his evidence, is the expansive views which can be gained to the outstanding natural landscapes which ring the Wakatipu Basin. This serves, in my opinion, to underline that the landscape importance of the Frankton Flats as a platform from which these views can be appreciated rather than for any qualities which it may so far have retained itself. It is the case, however, that the current expansive views from Lot 6 will become less expansive and with greater evidence of urban development in the fore and mid-grounds regardless of the consequences of this notice of requirement.<sup>148</sup>

[182] We understood Dr Read to refer to development enabled by PC19 on the northern side of the aerodrome.

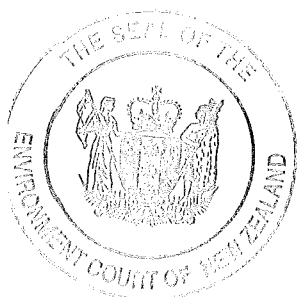
[183] Mr Miskell prepared an assessment of landscape effects attached to the NOR. In it he concluded that the potential adverse landscape effects resulting from the development would be "less than minor".<sup>149</sup> While he did not consider the viewing population within the RPZ site to be particularly sensitive to landscape change, he recommended a buffer of grasses, shrub and tree planting at the southern boundary of the NOR. As it transpires the NOR did not include any conditions addressing the built form, bulk and location of buildings within the proposed general aviation/helicopter precinct.

[184] In his evidence-in-chief Mr Miskell reviewed this earlier opinion. Upon reflection he now found the views to the north within Activity Area 8 to be an important consideration and recommended that landscape design controls be established; in particular conditions requiring:

- (a) a 1.2 m high hedge planting on both sides of the proposed access road;
- (b) an avenue planting at 20m spacing of trees capable of growing up to 10m as part of the access road development on the southern boundary of the designation; and

<sup>148</sup> Read EiC at [3.2], McKenzie EiC at [23].

<sup>149</sup> NOR Appendix D at [25].



- (c) native beech planting within car-parking areas.<sup>150</sup>

[185] Mr Miskell also recommended that a landscape buffer be maintained between any infrastructure and buildings on the designated land and the balance of Lot 6. And finally, that there should be “thoughtful” siting and design of all buildings and infrastructure to create a high standard of visual amenity from public viewpoints.<sup>151</sup> While QAC’s planner proposes a landscape condition in his evidence-in-chief, this does not fully pick up on all the recommendations made by Mr Miskell.

[186] The need for the precinct to appropriately address the environment in which it is to be located only really gained traction with QAC after the QLDC (non-regulatory) joined the proceedings in June 2012. That is so notwithstanding the recommendations made by RPL’s landscape architect in his evidence and in the report prepared by the EPA.

***Views from within Remarkables Park zone***

[187] Unmitigated, the concerns arising from within the RPZ are:

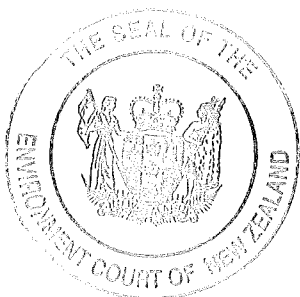
- (a) a possible built development that involves lineal arrangement of large, industrial scale buildings extending approximately 1 kilometre along RPZ boundary;
- (b) the obstruction of views to the surrounding mountains;
- (c) the disruption of the current sequence of an undeveloped foreground to more distant mountainous views;
- (d) the reduced opportunity for future development within the RPZ, through open space, to connect visually with the surrounding mountainous landscape; and
- (e) adverse visual effects associated with extensive car-parking.

[188] Mr Miskell estimated the viewing distance from the boundary of the NOR to RPZ’s Activity Areas 6 and 7 to be between 200 to 250m.<sup>152</sup> At this distance the southern general aviation/helicopter precinct would not intrude on the views of the

<sup>150</sup> Miskell EiC at [108].

<sup>151</sup> Miskell EiC at [107].

<sup>152</sup> Miskell EiC at [30].



skyline from either Activity Area. Views to the northern mountains from within RPZ become obscured at distances 125-150m or less from the precinct.<sup>153</sup> If there are gaps between buildings the degree of this effect will be less again.<sup>154</sup>

[189] The extent to which the NOR car-parks and buildings are visible from these activity areas will depend on future development north of the EAR, including Activity Area 8. In that regard, the Structure Plan produced by RPL landscape architect, Mr B McKenzie, shows intensive residential development immediately north of the EAR within the RPZ.

[190] That said, RPL is less concerned with maintaining a view to a skyline than it is with maintaining visual connection with the surrounding mountainous landscape. Mr McKenzie's response to the proposed landscape design controls was that they would have limited effect in addressing the visual effects of the proposal, because of its built form.<sup>155</sup>

#### *Views from within Queenstown Airport*

[191] The views from Queenstown Airport to the surrounding mountains are expansive, and views south along the Coneburn Valley are rightly described by Dr Read as exceptional.<sup>156</sup> Dr Read's evidence was that the southern precinct would partly obscure the base of the Remarkables Range (but not its "ice scoured face"), as it would also the Crown Terrace Escarpment. The development would narrow the field of vision and reduce the naturalness of the view.<sup>157</sup>

[192] Mr Miskell evaluated the effect on views and visual amenity as a consequence of this development. In his opinion The Remarkable mountains would "dwarf" the precinct development in the foreground.<sup>158</sup> At a distance of 300m [we take that to be from areas which are accessible by the public] it is unlikely that the buildings within the southern precinct would significantly reduce the positive visual impact of the surrounding mountains.<sup>159</sup> Further, in his opinion the views towards Coneburn Valley

<sup>153</sup> Miskell EiC at [22].

<sup>154</sup> Miskell EiC at [22].

<sup>155</sup> McKenzie at [101].

<sup>156</sup> Read EiC at [4.2.3].

<sup>157</sup> Read EiC at [4.3.2.2].

<sup>158</sup> Miskell EiC at [68].

<sup>159</sup> Miskell EiC at [67].



from within the Airport would be disrupted by the proposed precinct, as they would also be by development within the RPZ, albeit development within RPZ may have a lesser effect. He concludes the presence of aircraft related activities and structures within close proximity to the Airport is not an unexpected addition to the landscape and conditions can be imposed to ensure that any adverse landscape effects are successfully addressed.<sup>160</sup>

### ***Discussion and findings***

[193] All three witnesses agreed that from a landscape perspective a location north of the main runway would be a better option for the proposed precinct; a northern location would have greater absorptive capacity as it would appear in the foreground of PC19's proposed industrial and yard based activities.<sup>161</sup> However, the adjacent Events Centre and sports fields would give rise to similar amenity issues as could occur if the development was adjacent to RPZ's Activity Area 8.

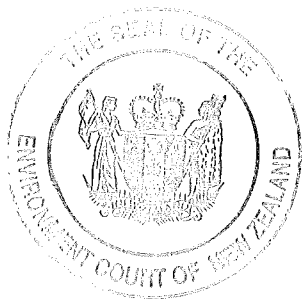
[194] We agree with Dr Read and Mr McKenzie that the lack of control in the designation conditions over the form, bulk, location and exterior appearance of buildings could, unmitigated, create a significant adverse effect on the visual amenity of those parts of the RPZ located adjacent to the aerodrome. This is particularly so given that Designation 2's building height restriction of 9.0m does not apply to hangars. We agree also with Dr Read that a lineal pattern of development along the 1km boundary with the balance of RPZ would be a new and notable pattern within the landscape and without mitigation this would be neither pleasant nor attractive.<sup>162</sup>

[195] While development within the RPZ, including Activity Area 8, may obstruct views towards the north and, in the nature of any development, the remnant natural character of RPZ's undeveloped land will be diminished; this does not detract from the relevance or significance of the views and the derived visual amenity for this zone. We find this to be the case even without assuming that any particular pattern of development will emerge in Activity Area 8 (such as a golf course and other recreational facilities as discussed by several witnesses).

<sup>160</sup> Miskell Second Supplementary Statement at [9-10], Transcript at p [720].

<sup>161</sup> Read EiC at [7.4], McKenzie Rebuttal at [35], Miskell EiC at [35], Transcript at [720].

<sup>162</sup> Read EiC at [4.2.8].



[196] However, we are satisfied that if development of the precinct, its land and buildings, addresses the surrounding environment including the Airport and the adjacent RPZ Activity Areas, these effects can be satisfactorily managed and would serve to visually integrate the precinct within the surrounding urban area in a manner which achieves the outcomes of the relevant objectives and policies of the District Plan.

### ***Outline Plan of Works***

[197] Pursuant to section 176A QAC is directed to file an outline plan of works in accordance with that section.

[198] We do not impose an additional requirement that QAC consult with QLDC or other interested parties prior to lodgment. It is plainly in QAC's interests to do this and consultation accords with sound resource management practice. A condition requiring consultation is unnecessary, given the directions requiring QAC to directly address the landscape and visual amenity objectives for its buildings and infrastructure design, an integrated design and management plan and the assessment matters relevant to an outline plan of works.

### ***Conditions on landscape and visual amenity***

[199] The conditions proposed by the QAC and QLDC (regulatory) planners were not supported, and we find that is with good reason. The conditions essentially provide tools by which to address the visual and amenity effects of the development but with no objectives articulating the intended outcomes. So that these outcomes are brought into account we have made directions that QAC is to propose the landscape and visual amenity objectives for building and infrastructure design and location.

[200] QAC is also to prepare for the court's approval:

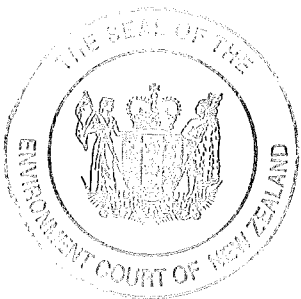
- (1) the proposed conditions for inclusion in Designation 2 which give effect to the court's decision which will require:
  - (a) the preparation of an integrated design and management plan which states:
    - (i) the landscape and visual amenity objectives for building and infrastructure design and location and outcomes in relation to:



- a landscape planting, staging and maintenance plan addressing:
  - roading, car-parking and buildings; and
  - the extent to which the landscape planting complements existing landscaping within the aerodrome designation and adjoining RPZ activity areas;
- management of stormwater (including if relevant earthworks, retention ponds and landscaping);
- the management of signage, including the use of building colour as a corporate logo; and
- standards for an acceptable range of building materials, colour, tones and reflectivity.

[201] For avoidance of doubt the content of the various plans (for example the planting plan) are not required, and we doubt this would be possible without knowing the proposed layout of the precinct.

- (2) QAC is to propose conditions which require QLDC at the outline plan of works stage to consider the extent to which:
- (a) the outline plan of works gives effect to the integrated design and management plan and achieves the stated landscape and visual amenity objectives for building and infrastructure design and location;
  - (b) buildings appear recessive within the surrounding environment;
  - (c) buildings complement existing or consented development within the Airport and adjacent RPZ activity areas;
  - (d) buildings provide visual permeability;
  - (e) views of surrounding mountainous landscape are maintained;
  - (f) clustering of buildings may reduce a lineal arrangement of the precinct; and



- (g) the use of landscape mounding as a tool to attenuate the bulk and form of the precinct buildings.<sup>163</sup>

***Overall conclusion on landscape and visual amenity***

[202] QAC has prioritised its operational requirements without giving adequate consideration to how the development of the southern precinct addresses the surrounding landscape and urban context.

[203] There is considerable potential for large scale utilitarian buildings to be developed within the designation, particularly in the absence of maximum building height controls in relation to hangars. The effect of this would be to reduce the views and visual amenity enjoyed by both persons arriving and departing from this airport and from within the RPZ. The deficiencies in the management of landscape and visual amenity do not reflect the importance attributed to Queenstown by the Minister for the Environment; that it is a world renowned tourist destination and a place of national significance.

[204] The fact that the precinct's buildings will have a functional purpose does not obviate the need to address the development in its context, although plainly the functionality of the buildings is a relevant consideration. Our concerns are such that we are unable to conclude that the NOR's confirmation as proposed by QAC achieves the purpose of the Act.

**Direct referral to the Environment Court**

[205] Finally, we are to have regard to the Minister for the Environment's reasons for making the direction and also any information provided by the Environmental Protection Agency.

[206] We understand that QAC initially requested the NOR be directed to a Board of Inquiry and that the EPA, finding that the NOR was a proposal of national significance, made this recommendation to the Minister for the Environment.<sup>164</sup> We have considered the EPA's report to the Minister, and note the advice that the NOR could be determined

<sup>163</sup> While Mr Miskell in rebuttal at [54] did not consider the bund necessary and was a "land hungry" device, he was not opposed to it. This condition is not the same as a bund.

<sup>164</sup> Recommendation of the EPA to the Minister for the Environment dated 2 February 2011.



independently of other proceedings before the court.<sup>165</sup> As recorded in this decision and elsewhere, we do not share this view.

[207] Immediately following the EPA's recommendation to the Minister, QAC requested the matter be referred to the Environment Court as it had been unable to acquire the land from RPL.<sup>166</sup> The Minister for the Environment decided to refer the NOR to the court and his reasons for this included that there were a number of matters already before the court related to this NOR and that the direction to the court would facilitate an integrated decision-making process for Queenstown Airport.<sup>167</sup> In his ministerial direction, the Hon. Dr N Smith stated "Queenstown is a world renowned tourist destination and expansion of the Airport is likely to affect Queenstown, which is considered to be a place or area of national significance."<sup>168</sup> We agree with Dr Smith as to the role the Airport has in supporting and expanding Queenstown as a tourist destination and secondly, that the NOR should be considered in the wider context of other far reaching proceedings before the Environment Court. (As mentioned earlier these proceedings are QAC's privately initiated PC35 and a second NOR also to amend Designation 2 and PC19).

## **Part 2 of the Act**

[208] We commence our evaluation of the NOR under section 7 (no sections 6 and 8 matters are directly in play). Section 7 informs the purpose of the Act and we are to have particular regard to and accord such weight as we think fit to its provisions. Section 7 plays an important role but should not be approached in a way that obscures the purpose of the Act.

### ***Section 7(b)***

[209] RPL submits that it is not an efficient use of resources to seek to designate land owned by a third party for airport purposes, where QAC owns land that is designated for the same purpose.<sup>169</sup> The submission is relevant to:

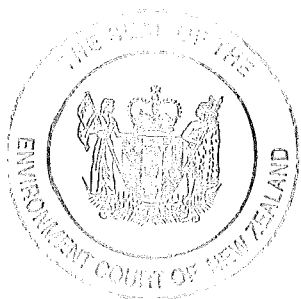
<sup>165</sup> Recommendation of the EPA to the Minister for the Environment dated 2 February 2011, at [17].

<sup>166</sup> Letter from Lane Neave to EPA dated 3 February 2011.

<sup>167</sup> Letter from Minister for the Environment to QAC dated 15 February 2011.

<sup>168</sup> Ministerial Direction dated 14 February 2011.

<sup>169</sup> RPL Closing Submissions [7.12].





- (a) the objective for the designation, which includes the statement “achieving the maximum operational efficiency as far as possible”;
- (b) section 7(b) of the Act which provides that in achieving the purpose of this Act we are to have particular regard to the efficient use and development of natural and physical resources; and
- (c) section 5.

[210] Counsel for QAC and RPL referred to the High Court decision of *Meridian Energy Ltd v Central Otago District Council* [2011] 1 NZLR 482 where the court observed that on each occasion the Resource Management Act has imposed an obligation on the consent authority to consider alternative locations or methods, that obligation has been carefully spelt out in the Act.<sup>170</sup> Over time, a relatively narrow approach had been taken to section 7(b) in the context of a requirement for a designation. The courts have reviewed the decisions of territorial authorities with regard to whether alternatives have been properly considered, rather than whether alternatives had been excluded or the best alternative chosen. Justice Fogarty in *Meridian Energy Ltd v Central Otago District Council* reflected that it is difficult, if not impossible, to express some of the Part 2 criteria in terms of quantitative values.<sup>171</sup> In this case, the economists agreed that it was not possible to monetarise all the benefits or costs associated with the NOR.

[211] Decisions on costs and economic viability, or profitability of a project are not matters for the court. As Justice Wild in *Friends and Community of Ngawha Inc and Others v Minister of Corrections*<sup>172</sup> said, these matters should:

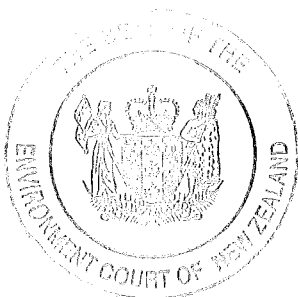
... sensibly be regarded as decisions for the promoter of the project. Otherwise, the Environment Court would be drawn into making, at least second-guessing, business decisions. That is surely not its task.

[212] The economists engaged by QAC and RPL considered it reasonable, if not essential, that we assume QAC would act rationally when making investment decisions.

<sup>170</sup> *Meridian Energy Ltd* at [77-78].

<sup>171</sup> At [108].

<sup>172</sup> High Court Wellington AP 110/02, Wild J., 20 June 2002 at [20].



[213] RPL referred us to the Environment Court decision of *Port Gore Marine Farm v Marlborough District Council* [2012] NZEnv C72 at [119] where, obiter dicta, the court commented that while a cost-benefit analysis is not a compulsory consideration under section 7(b) of the Act it may be very useful. The court goes on to state that without it an assessment of efficiency under section 7(b) tends to be rather empty.

[214] We find, for reasons that we give later, a cost-benefit analysis may be relevant and informative of matters in section 171(1)(b) and section 7(b), but that does not elevate the matter into a criterion to be fulfilled.

### *The evidence*

[215] Dr T Hazeldine, Professor of Economics at the University of Auckland, gave evidence on behalf of RPL which proceeds on the basis that QAC has not made out the case whether the designation is reasonably necessary to achieve its objective.<sup>173</sup> As that is not our conclusion, at least in relation to the general aviation/helicopter precinct, we found his concluding remarks to be of limited assistance.

[216] Mr Ballingall, an economist employed by the New Zealand Institute of Economic Research Inc, gave evidence on behalf of ANZL. He sets out his understanding that these proceedings require consideration of alternatives and the cost-benefits issues, although he states correctly that a section 32 analysis is not required.<sup>174</sup> QAC did not present a cost-benefit analysis in support of the NOR.<sup>175</sup>

[217] Mr Ballingall supports a cost-benefit analysis as providing a “formal, structured method of systematically assessing proposals in terms of their outcomes relative to their use of resources”.<sup>176</sup> For these proceedings he suggests an analysis at the level of a regional perspective is required as this is where the majority of costs and benefits would accrue.<sup>177</sup> With reference to the cost-benefit analysis framework produced by the New Zealand Treasury, he analysed the NOR documentation in terms of (a) its definition of the problem – that is the challenge to be addressed, (b) the objective of the NOR and (c) the identification and analysis of the options which address the challenge. All of this he

<sup>173</sup> Hazeldine EiC at [17, 55].

<sup>174</sup> Ballingall EiC at [3.4].

<sup>175</sup> Transcript at [633].

<sup>176</sup> Ballingall EiC at [3.19].

<sup>177</sup> Ballingall EiC at [3.22].



found inadequately detailed, commencing with the vague nature of the NOR objective. The NOR, he concludes, fails to explain how the capital costs of acquiring Lot 6 would be funded, and how this might affect the charges to scheduled airlines and non-scheduled operators and demand for their services.

[218] A key difference between Mr Ballingall and QAC's economist, Mr M Copeland, lies in the relevance of a cost-benefit analysis for options which have been considered and discounted by a requiring authority.<sup>178</sup> Mr Copeland's approach is like an economic impact assessment considering the use of the aerodrome with or without Lot 6.<sup>179</sup> Even then his focus is on the benefits of the proposal, excluding consideration of the opportunity cost to RPL in not being able to use this land and the cost of the land. He concludes that an increase in ticketing prices as a consequence of acquiring Lot 6 is not an externality but rather an imperfection in the market place – i.e. people perceive that the price for airline tickets is too high or too inefficient.<sup>180</sup>

#### *Discussion and findings*

[219] We agree with Mr Copeland that QAC is not subject to any requirement of NZ Treasury or any other government agency when presenting this NOR. However, the value of Mr Ballingall's evidence is that it presents a tool for structured decision-making by a requiring authority. (There may of course be other tools.) In this regard, we would have been better assisted had the witnesses agreed in their expert conference on a costs-benefits tool for use in these proceedings. As it was several assessments were presented with different witnesses employing different metrics which made parts of their evidence impossible to compare. QAC's simple cross/tick method was inadequately described and conveyed no understanding of the parameters of each of the categories assessed.

[220] A cost-benefit analysis of the alternatives may be relevant and informative of matters in section 171(1)(b) in particular whether adequate consideration was given to alternatives in the circumstances where a requiring authority either does not have an interest in the land or the work will have a significant adverse effect on the environment. This could be presented in a qualitative or quantitative format (or a mixture of both) and

<sup>178</sup> Copeland Rebuttal at [10].

<sup>179</sup> Copeland EiC at [29].

<sup>180</sup> Transcript at [637].



could include consideration of the opportunity cost of the Airport using its own land versus the opportunity cost to RPL should the NOR be approved. Secondly, it has the advantage of increased transparency of decision-making and here we refer to RPL's concern that QAC's decision-making was weighted to maximise its other business opportunities within the existing designation.

[221] In these proceedings efficiency can be understood in terms of allocative, social and operational efficiency. Allocative efficiency seems to accord with a general rule of economics given by Mr Ballingall – that an efficient level of any activity occurs where its marginal costs matches its marginal benefits<sup>181</sup> and social efficiency, where the externality costs are identified and if possible, quantified and brought to account. While we are not concerned with the financial effect on QAC, the effect on people and communities which use the services provided by Queenstown Airport is relevant. Also relevant is the use of the existing designation for some or all of the proposed works when compared with the use of RPL land.

[222] We do not understand Mr Copeland's conclusion that higher ticketing costs, should they transpire, may be regarded as an imperfection in the market when he says the Airport is unlikely to employ monopolist pricing.<sup>182</sup> This response does not directly address the ANZL's concern about the effects on people and communities who would bear these costs. That said, except in the most general sense the sensitivity of the Queenstown tourism market to higher pricing charges was not addressed in evidence. In order to reach a view, this matter would need to be considered in the wider context of any welfare enhancing benefits associated with increased levels of economic activity<sup>183</sup> and the opportunity for effective competition between scheduled airline operators with the expansion of the passenger terminal.<sup>184</sup>

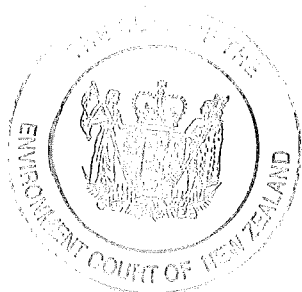
[223] The use and development of natural and physical resources may be inefficient where they do not avoid, remedy or mitigate the adverse effects of the activity on the environment and as a consequence impose costs on neighboring landowners or the community in general. Here we are concerned with the effects associated with the proposed use and development of land.

<sup>181</sup> Ballingall EiC at [3.7-3.8].

<sup>182</sup> Transcript at [638].

<sup>183</sup> See Copeland EiC at [49] where a range of benefits are discussed.

<sup>184</sup> Copeland EiC at [66].



[224] In this case there may be a negative opportunity cost to RPL if it is unable to use or develop its land in the manner enabled under the District Plan prior to the NOR (we refer to the possible displacement of a golf course to more valuable land zoned AA-4 and 7).<sup>185</sup> There may also be externality costs imposed on RPL as a consequence of unmitigated adverse effects emanating from the southern precinct. And externality costs imposed on the public in general if vehicle movement in the vicinity of the signalized intersections, particularly at Red Oaks Drive, is unsafe for pedestrians and motorists.

[225] While the compensation payable for the acquisition of land and any injurious affection to the balance are matters for the PWA forum, and we tend to the view that this is where the opportunity cost to RPL should be addressed, in the context of section 7(b) we can consider any inefficiency caused by the failure to avoid, remedy or mitigate adverse effects of activities on the environment as these may disenable people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety. When exercising our broad overall judgment under section 5 it is the scale and significance of any inefficiency that is to be brought into account, together with the benefits of the NOR. We consider this approach consistent with the High Court's findings in *Meridian Energy Ltd v Central Otago District Council* at [210].

[226] We have had to make what we can of all of the evidence presented. As we do not have any cost-benefit analysis our findings do not concern this measurement. Instead, we have reached the following conclusions qualitatively on operational efficiency and externality costs:

*Operational efficiency*

- (a) an instrument precision runway and a Code D taxiway is an *inefficient* use of part of the Lot 6 land when it is unlikely these uses will establish;
- (b) a general aviation/helicopter precinct including air and landside buildings, infrastructure and landscaping is an *efficient* use of part of the Lot 6 land;
- (c) it would be an *efficient* use of land to co-locate the Code C corporate jets south of the main runway in proximity to the Code C taxiway on the basis that QAC elect to build a Code C taxiway in this location;

<sup>185</sup> Given our decision to reduce the extent of the NOR we do not know whether this remains an issue.



- (d) a hybrid alternative would be *inefficient* in that it would compromise the benefits which would accrue from the collocation of all operations on one site, including for example, shared support services, shared parking, shared accessways within the precinct, proximity for day to day interactions among operators and for customers, many of whom will be unfamiliar with the Airport, knowing that all flightseeing and helicopter operations are located in one precinct.

#### *Externality costs*

If the development were to proceed in the manner proposed by QAC then it is our preliminary view that use of the western access imposes an unacceptably high cost on the public in general, these costs being associated with the safety of pedestrians and motorists in the vicinity of two signalised intersections, particularly the intersection at Red Oaks Drive. Likewise, the inadequate level of landscape mitigation proposed by QAC would create externality costs to the public using the airport facility and RPL in the development of its land. However, the effects of noise are able to be adequately mitigated in the manner proposed by the Environment Court in its Interim Decision on PC35.

#### *Section 7 (c and f)*

[227] Our findings in relation to the effect on the environment of confirming the requirement are relevant to section 7(c) and (f), and do not require any further elaboration.

[228] Without the imposition of conditions the quality of the environment is likely to be appreciably affected by the closer proximity of aircraft operations to the RPZ. In particular, there is likely to be significant adverse effects on the visual amenity and views of activity areas adjacent to the extended aerodrome if conditions addressing the form, bulk, location and exterior appearance of buildings are not imposed. Even with such conditions, the amenity values and quality of the environment within RPZ will not be fully maintained and that outcome we take into consideration when making our ultimate determination on the NOR.



### Section 5

[229] We remind ourselves that the single purpose of the RMA as expressed in section 5(1) is to promote the sustainable management of natural and physical resources. This case has raised considerations to which we must attach statutory weight that argue both for and against the NOR. In exercising our judgment it has been necessary to carefully weigh these matters and in the words of *North Shore City Council v Auckland Regional Council (Okura)*<sup>186</sup> compare the conflicting considerations, their scale and degree and relative significance or proportion in arriving at the final outcome.

[230] The designation amended in the manner we have intimated will enable the QAC, Queenstown Lakes and wider national and international communities to provide for their social and economic wellbeing by using the natural and physical resources concerned in ways that fulfill the QAC's objective of providing for expansion of the aerodrome to meet projected growth and, as far as possible, achieving maximum operational efficiency. We judge these to be major benefits in the context of the affected resources and having regard to the likely effects on the environment when avoided or mitigated by conditions.

[231] For the reasons we have given, an insufficient nexus has been established between fulfilling the QAC's objective and making provision for an instrument precision approach runway and Code D parallel taxiway to support the use of RPL's land for these purposes. The balance of the work will be achieved at the cost to RPL of not being able to use the affected resources it owns for purposes authorized by the district plan. This is recognized and if required there is legislation to deal with any related considerations which may arise (such as compensation).

[232] We have satisfied ourselves as carefully as is possible relying on the evidence and submissions made, that the aviation activities enabled by the designation provide for those aspects of the communities' safety which can properly be dealt with under the Act. Similarly, we have formed the view that the health of potentially affected people, and more particularly the degree to which they are subjected to noise as a result of the location of the aviation activities enabled by the amended designation, can be

<sup>186</sup> *North Shore City Council v Auckland Regional Council (Okura)* (1996) 2 ELRNZ 305, [1997] NZRMA 59.



appropriately managed through the finalized provisions of PC35, if approved.<sup>187</sup> We have only been able to make these findings in the knowledge that adverse effects on the environment likely to result from the activities authorised can be avoided, remedied or mitigated to a degree consistent with the Act's purpose.

[233] The adverse landscape and visual amenity effects of the linear general aviation/helicopter precinct, which would otherwise result, can be avoided or mitigated by the imposition of more effective conditions than those proposed by the QAC and the District Council. Such conditions are necessary to recognise and provide for the protection of views to the outstanding natural landscapes and features in which the development will sit and to manage anticipated effects on RPZ amenities in neighbouring Activity Areas. The integrated design and management plan to be produced by QAC for the court's approval prior to a final decision can secure these matters. We are not confident that the probable effects of concern would otherwise be managed effectively or the purpose of the Act necessarily fulfilled if these aspects were left solely to future outline plans of works.

[234] Potential adverse traffic effects identified during the course of the hearing are more difficult to assess in terms of their severity. We are confident however that the potential effect of exiting traffic on the free and safe flow of traffic in the vicinity of the proposed western access can be managed by the imposition of a condition limiting its use to entry only. Egress would be via the proposal's eastern access. We retain an open mind on whether the effects of concern may be able to be avoided or mitigated sufficiently by other means to secure the Act's purpose. To this end the parties are afforded the opportunity should they wish to submit alternative control measures based on a holistic understanding and assessment of existing and likely future traffic conditions on the local network.

[235] From the "other matters" specified for achieving the purpose of the Act we have identified sections 7(b), (c) and (f) as relevant. The latter two matters go generically to the effects on noise, landscape and visual amenity and traffic conditions which we have taken into account in our overall judgment in preceding paragraphs. We have

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<sup>187</sup> *Air New Zealand Ltd and Ors v Queenstown Lakes District Council* Decision No [2012] NZEnvC 195.





previously reviewed the degree to which the NOR allows for the efficient use and development of natural and physical resources (section 7(b)) and found that efficiency is not the sole preserve of monetarised costs/benefits and may also be assessed in terms of operational efficiency or indeed social efficiency (in particular relation to externality costs). Faced with incomplete information we are satisfied on the basis that QAC can reasonably be assumed to act rationally in its own interest that the NOR is consistent with aerodrome operational efficiency. We assume also that QAC will act rationally in respect of allocating its sovereign natural and physical resources. The extension to the aerodrome can equally be expected to efficiently meet (at least in part) social needs through the disposition and range of activities allowed for – but we can go no further than that absent evidence addressing any externality costs. Regrettably we were not assisted by a common approach on how economic efficiency might be appropriately assessed. A cost benefit analysis using a mix of quantitative and qualitative measures as appropriate may have lent an enhanced understanding of the relative degree of economic efficiency between alternatives for meeting QAC's objective by the use of airport and non airport land. Be that as it may, there is no statutory requirement for such and we do not find its absence material to the ultimate outcome in this case. We are concerned, however, that QAC satisfactorily address the externality costs associated with the adverse effects on landscape, and the adverse effects of noise and traffic as discussed in this decision.

[236] Overall we find the significant benefits to QAC and the wider community of developing and using the affected resources in the manner proposed, subject to the modifications and the conditions we have identified to avoid, remedy or mitigate adverse effects on the environment, to be consistent with the sustainable management purpose of the Act.

### **Outcome**

[237] Pursuant to section 149(U)(4)(b)(iii) the land required for a precision approach runway and Code D parallel taxiway is cancelled.

[238] The decision on the balance of land required for the designation is reserved pending confirmation as to the practicality of restricting the western access to allow for entry only or otherwise satisfactorily addressing the court's concerns about the



management of traffic at this location, approval by the court of an integrated design and management plan and finally the formulation of revised designation conditions as directed by the court as to the proposed assessment matters for an outline plan of works.

[239] Any decision to extend the aerodrome is for the purpose of establishing a general aviation/helicopter precinct. Other activities enabled by Designation 2 within the area of the extended aerodrome have not been considered by the court.

[240] The lapsing period will be addressed in the final decision subject to the court confirming the modified designation. For the lapsing clause to be effective, it is our tentative view that the Designation 2 should be amended by the inclusion of a statement that land within the aerodrome extension is to be used for the purpose of a general aviation/helicopter facility, and associated air and landside buildings and infrastructure and landscaping. This area will need to be separately identified in planning map 31a and Figure 1. In anticipation that QAC can address the court's concerns a direction has been given it propose a suitably worded statement.

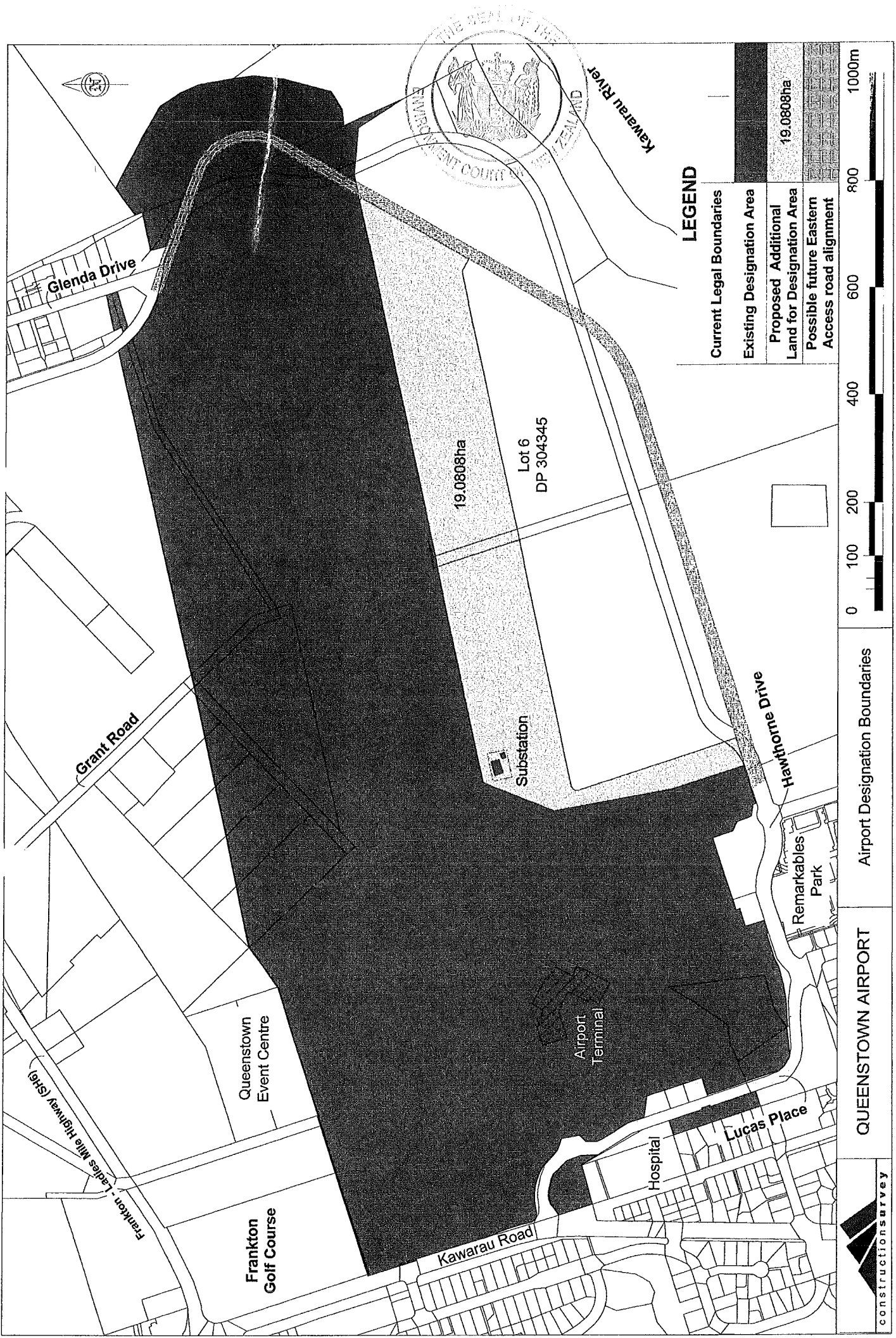
[241] Consideration needs also to be given to the surplus land identified by the traffic witnesses at [164] and whether this is to be confirmed or cancelled (cancelled as this part of the work and designation is not reasonably necessary for achieving QAC's objective).

[242] Finally, confirmation of the modified designation will entail consequential changes to planning map 31a. If approved, the planning map will need to identify separately the area of the extension and amended air noise boundaries. Further directions will follow.

For the court:

  
**J E Borthwick**  
**Environment Judge**

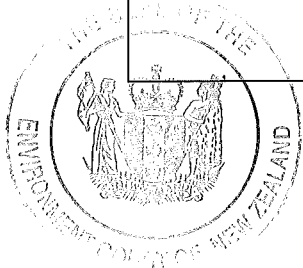




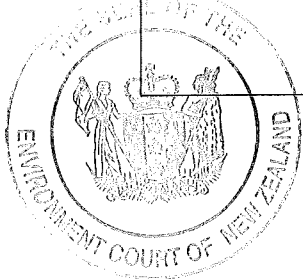
## ANNEXURE 2

### GLOSSARY OF TERMS

Area Navigation (RNAV)	RNAV is a method of Instrument Flight Rules (IFR) navigation which permits aircraft navigation along any desired flight path within the coverage of either station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of both methods.
Aerodrome	A defined area of land used wholly or partly for the landing, departure, and surface movement of aircraft, including any buildings, installations and equipment on or adjacent to any such area used in connection with the aerodrome or its administration.
Aircraft stand	An aircraft stand is the term used to refer to a defined parking position for an aircraft.
Airfield	The network of runways and taxiways at an airport.
Airport	The broader environs of an aerodrome and its associated non-aviation commercial and industrial activities.
Airside	The movement area of an aerodrome, adjacent terrain and buildings or portions thereof, access to which is controlled.
Apron	A defined area on an aerodrome, intended to accommodate aircraft for the purposes of loading or unloading passengers or cargo, refuelling, parking or maintenance.
Capacity	The measure of an airport system's capability to accommodate a designated level of demand.
Decision Height	A decision height is a specified height or altitude in an aircraft approach at which a missed approach must be initiated if the required visual reference, such as the runway, to continue the approach has not been acquired. This allows the pilot sufficient time to safely re-configure the aircraft to climb and execute the missed approach procedures while avoiding terrain and obstacles.
Final Approach and Take-off areas (FATOs)	A defined area over which the final phase of a helicopter approach manoeuvre to hover or land is completed and from which the takeoff manoeuvre is commenced and, in some circumstances, including the rejected takeoff area available.
General Aviation (ga)	Refers to all civil aviation flights other than scheduled airline and regular cargo flights, and in these proceedings are grouped into three aircraft types; helicopters, fixed wing (principally flight school and sight-seeing) and corporate jet aircraft (principally Code C).
General aviation/helicopter precinct	In these proceedings QAC proposes the general aviation/helicopter precinct accommodate the three (ga) aircraft types. There are three general aviation precincts under consideration: the existing precinct; QAC's proposed southern precinct located south of the main runway; and a proposed northern precinct (located north of the main runway).



Helicopter	An aircraft whose lift is generated by the action of a rotary wing.
Instrument Approach Runway	A runway equipped with visual and electronic navigational aids for which a precision or a non-precision approach has been approved.
Instrument Flight Rules (IFR)	Rules governing flight in certain limited visibility and cloud conditions.
Instrument Landing System (ILS)	An Instrument Landing System (ILS) is a ground-based instrument approach system that provides precision guidance laterally and vertically to an aircraft approaching and landing on a runway.
Landside	Areas of an airport to which the travelling and non-travelling public have generally unrestricted access.
Movement area	The part of the aerodrome used for the take-off, landing and taxiing of aircraft, consisting of the airfield and the aprons.
Movement (passenger)	One passenger movement is one arrival or one departure of a passenger at an Airport.
Movement (aircraft)	One aircraft movement is one arrival or one departure of an aircraft at an Airport.
Non-instrument Approach Runway	A Non-instrument Approach Runway is a runway intended for the operation of aircraft using visual approach procedures.
Non-precision Approach	A non precision approach is an approach to an instrument runway served by visual aids and a non visual aid providing at least directional guidance adequate for a straight-in approach.
Non-scheduled Aircraft operations	Generally synonymous with "General Aviation".
New Zealand Civil Aviation Authority (NZCAA)	The New Zealand Civil Aviation Authority is responsible for the administration of Civil Aviation Regulations promulgated under the Civil Aviation Act 1990.
Precinct	Has the same meaning as general aviation/helicopter precinct.
Passenger Terminal	The building and its immediate surrounds in which facilities are provided for processing the departure, arrival or transit of passengers and their baggage.
Precision Approach	A precision approach is an approach to a runway where an instrument approach system provides guidance laterally and vertically to an aircraft approaching and landing on a runway.
Required Navigation Performance (RNP)	RNP is a statement of the navigation performance standards necessary for operation within a defined airspace, in the context of Area Navigation (RNAV).
Runway	A defined rectangular area on an aerodrome prepared for the landing and takeoff of aircraft.
Runway incursion	A runway incursion is "any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft".



Runway strip	A runway strip is a defined graded area surrounding and including the runway, intended to reduce the risk of damage to aircraft running off a runway; and to protect aircraft flying over it during take-off or landing operations.
Scheduled airline operators	"Scheduled" airline passenger services refers to the regular scheduled movements operated by major airlines; and scheduled aircraft refers to the aircraft operated by such airlines.
Taxiway (and taxi, taxiing)	A defined path on an aerodrome for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.
Terminal Precinct	The wider environs surrounding and including the Passenger Terminal including aircraft aprons, kerbside, car parking, road circulation, and hotels and commercial facilities drawing business from being in close proximity to the Passenger Terminal.
Visual Flight Rules (VFR)	Rules governing flight in during periods of generally good visibility and limited cloud cover.



## ANNEXURE 3

### GLOSSARY OF ACRONYMS

<b>ANB</b>	Air Noise Boundary
<b>ANZL</b>	Air New Zealand Limited
<b>ASAN</b>	Activity Sensitive to Aircraft Noise
<b>CAA</b>	New Zealand Civil Aviation Authority
<b>dBA</b>	Decibel
<b>EAR</b>	Eastern Access Road
<b>EPA</b>	Environmental Protection Agency
<b>FATO</b>	Final Approach and Take-off Areas
<b>FBO</b>	Fixed Base Operator
<b>GA</b>	General Aviation
<b>ILS</b>	Instrument Landing System
<b>OCB</b>	Outer Control Boundary
<b>NOR</b>	Notice of Requirement
<b>PC19</b>	Plan Change 19 – Frankton Flats (B)
<b>PC34</b>	Plan Change 34 – Remarkables Park
<b>PC35</b>	Plan Change 35 – Queenstown Airport Aircraft Noise Boundaries
<b>PWA</b>	Public Works Act 1981
<b>QAC</b>	Queenstown Airport Corporation
<b>QLDC</b>	Queenstown Lakes District Council



<b>RESA</b>	Runway End Safety Areas
<b>RMA</b>	Resource Management Act 1991
<b>RNP</b>	Required Navigation Performance
<b>RPL</b>	Remarkables Park Limited
<b>RPS</b>	Regional Policy Statement
<b>RPZ</b>	Remarkables Park Zone
<b>TALO</b>	Touch-down And Lift Off area

