

## Appendix A

### 1. MAKE THE FOLLOWING CHANGES TO APPENDIX 1 DESIGNATIONS:

The changes recommended are as follows. Additions are underlined. Deletions are ~~struck through~~.

### 2. MAKE THE FOLLOWING CHANGES TO SECTION E:

## E Wanaka Airport

The land area covered by the Aerodrome Purposes designation shall include the sites described below:

- Lot 2 DP 341605
- Lots 1, 2, 3, 4, 5 DP 18824
- Lot 2 DP 368240
- Lot 1 DP 341605
- Lots 4 – 5 DP 340031
- Lot 6 DP 22636
- Lot 7 DP 22637
- Lots 2, 3, 4, 5 DP 23517
- Lots 10 and 11 DP 24410
- Lot 6 DP 24685
- Lots 1 and 2 DP 26239
- Section 1 Survey Office Plan 24776
- Legal Road
- ~~Lots 10 and 11 DP 24410~~
- ~~Lot 8 DP 22637~~
- ~~Lot 5 DP 23517~~
- ~~Lot 7 DP 22637~~
- ~~Lot 6 DP 22636~~
- ~~Lots 1, 2, 3, 4 and 5 DP 18824~~

- ~~Lot 6 DP 24685~~
- ~~Lots 1, 2, 3 and 4 DP 23517~~
- ~~Part Lot 1 DP 16921~~
- ~~Legal Road~~

### 3. MAKE THE FOLLOWING CHANGES TO APPENDIX 1 SECTION E.1 - AERODROME PURPOSES:

#### E.1 Aerodrome Purposes

This designation is defined to protect the operational capability of the airport, while at the same time minimising adverse environmental effects from aircraft noise.

#### Permitted Activities

The nature of the activities covered by this designation is described as follows:

- (a) aircraft operations, rotary wing aircraft operations, aircraft servicing, fuel storage and general aviation, navigational aids and lighting, aviation schools, facilities and activities associated with veteran, vintage and classic aircraft operations, aviation museums and aero recreation.
- (b) associated buildings and infrastructure, car parking, offices and cafeteria.
- (c) a 197 metre extension of the main runway (11-29) in a north westerly direction to allow a maximum runway length of 1,397 m and a total runway strip length of 1,517 m with the 60 metre RESA included at each end. an extension of the main runway (11-29) of 550 metres to the north west to provide a runway length of 1,700 metres, plus a 50 metre starter extension.
- (d) an increase in width of the main runway strip to 150 metres.
- (e) ~~alterations to ancillary facilities.~~
- (f) ~~realignment of the road to the south east of the airport.~~

- (e) the formation of runway end safety areas of 240 metres long by 90 metres wide at both ends of the main runway.
- (f) expansion of the main apron area.
- (g) helicopter aprons and associated touch-down and lift-off areas.
- (h) a new passenger terminal and control tower.
- (i) alterations to ancillary facilities.
- (j) realignment of the road to the south east of the airport.
- (k) provision for a new alternative runway 93 metres to the north of and parallel to the existing main runway. The alternative runway will be 1,700 metres long and 30 metres wide contained in a strip 2,300 metres long by 150 metres wide.

### **Restrictions on Aerodrome Purposes Activities**

#### **Building Height**

- (a) Maximum height of any building shall not exceed 9.0 metres except that:
- (b) This restriction does not apply to the control tower, lighting towers or navigation and communication masts and aerials associated with airport operations.
- (c) No buildings, other than a control tower shall infringe the restrictions of the Approach and Land Use Controls designations.

#### **Building Setback**

- (a) Minimum setback from all boundaries of the designation shall be 10.0 metres.
- (b) Minimum setback from the eastern side of the centre line of the proposed parallel runway shall be 124 200 metres.

- (c) Minimum setback from the western side of the centre line of the runway shall be 124150 metres.

#### **Building Location and Appearance**

- (a) All space should be utilised in the south east area of the Airport before buildings are constructed in other areas.
- (b) Buildings shall comply with the QLDC Guide to Reducing Glare and Reflective Surfaces.
- (c) Before buildings are constructed on the northern side of the runway the airport operator will undertake a visual impact assessment of development in this area. The purpose of this assessment will be to serve as the guide to future development through the identification of view shafts or other mitigation methods to be implemented through the outline plan process as development occurs.

#### **Operations During Hours of Darkness**

The airport shall not be used for scheduled passenger services during the hours of darkness unless a suitable lighting plan is ~~produced and the 65 and 55 L<sub>dn</sub> contours and associated Air Noise Boundary and Outer Control Boundary are reassessed.~~ No aircraft operations, other than emergency aircraft operations, shall occur between 10 pm and 7 am.

#### **Restrictions on Activities**

~~No scheduled commercial aircraft flights are to take place from the airport until such time that processes under the Resource Management Act 1991 are adopted to reassess and consider the effects of altering the Air Noise Boundary and Outer Control Boundary and to implement a noise monitoring programme.~~

~~The Airport shall be managed so the noise does not exceed a day/night level (L<sub>dn</sub>) of 65 dBA outside the Air Noise Boundary and 55 dBA outside the Outer Control Boundary.~~

#### **Wanaka Airport Liaison Committee**

The airport operator shall establish and facilitate a Wanaka Airport Liaison Committee ('WALC'). The WALC shall include membership from: the airport operator, Lakes Environmental Ltd, Wanaka Airport Users Group, commercial airlines, Airways Corporation and the community. The WALC shall meet at least once every six months with a quorum of four members including at least one representative of each of the airport operator, the QLDC and the community.

Within one year of this designation taking effect, the airport operator shall establish and maintain at its cost a Wanaka Airport Liaison Committee ('WALC'). The WALC shall include (but not be limited to) membership from:

- (a) An independent chair appointed by the airport operator,
- (b) The airport operator,
- (c) Lakes Environmental Ltd,
- (d) Wanaka Airport Users Group,
- (e) Commercial airlines,
- (f) Airways Corporation, and
- (g) The Wanaka Community Board.

The WALC shall meet at least once every six months with a quorum of four members including the chair and at least one representative of each of the airport operator, Lakes Environmental Ltd and the Wanaka Community Board. The WALC shall:

- (a) Review any complaints or issues relating to the operation of the airport, and responses by the airport operator,
- (b) Assist the airport operator develop procedures to minimise adverse environmental effects on the community,
- (c) Assist the airport operator to communicate and engage with the community,
- (d) Develop noise management procedures for unplanned engine testing of aircraft for scheduled passenger services, and review any such occurrences,
- (e) Review progress on airport development and the master plan, and
- (f) Encourage parties to work together co-operatively, sharing information and making recommendations by consensus and agreement.

## **Airport Noise**

Airport noise shall be measured, predicted and assessed in accordance with NZS 6805:1992 "Airport Noise Management and Land Use Planning", by an acoustics specialist.

The Airport shall be managed so airport the noise does not exceed a day/night level of 65 dB outside the Air Noise Boundary and 55 dB Ldn outside the Outer Control Boundary.

Compliance with the 55 dB Ldn noise limit at the OCB shall be determined every two years by the calculation of noise contours using the IMNV7b acoustics computer model and records of actual aircraft activity at the Airport. A report shall be provided every two years to the WALC, including the noise contour results and the methodology used in the preparation of the contours.

Once the calculated noise levels at any point on the Outer Control Boundary shown on the Planning Maps is 54 dB Ldn or greater, noise level measurements shall be carried out for a minimum of one month in the summer and one month in the winter at each of two measurement locations every two years. The noise measurement locations should be selected to allow confirmation of compliance with the 55 dB Ldn limit at the OCB. The measurement locations do not need to be on the OCB. The difference between the measured sound level and the calculated sound level at a measurement location shall be added to the calculated sound level at the OCB to determine compliance. A report on the results of such monitoring shall be forwarded to the WALC within two months of the monitoring being undertaken.

Note: This designation does not provide for an Air Noise Boundary at the 65 dB Ldn contour as the provisions and extent of the OCB render this unnecessary at Wanaka Airport at this time.

Noise from the following Aircraft Operations shall be excluded from the compliance calculations set out above:

- (a) (i) aircraft landing or taking off in an emergency; and
- (ii) emergency flights required to rescue persons from life threatening situations or to transport patients, human organs or medical personnel in medical emergency, and
- (iii) aircraft using the airport due to unforeseen circumstances as an essential alternative to landing at another scheduled airport, and

- (iv) flights required to meet the needs of a national or civil defence emergency declared under the Civil Defence Act 1983, and
- (b) flights certified by the Minister of Defence as necessary for reasons of National Security in accordance with Section 4 of the Act; and
- (c) aircraft undertaking fire fighting duties;
- (d) aircraft using the airport in preparation for and participation in the biennial Warbirds Over Wanaka air shows (this applies 5 days prior to and 3 days after the air show).

### **Other Noise**

Sound from activities operating in this designation, which is outside the scope of NZS 6805:1992, shall comply with the District Plan noise limits set in the zone standards for each zone in which the sound is received. This requirement includes engine testing other than for essential unplanned engine testing of aircraft for scheduled passenger services.

No noise limits shall apply to essential unplanned engine testing of aircraft for scheduled passenger services. The WALC shall determine noise management practices for unplanned engine testing including preferred locations and times. Following each unplanned engine test the airport operator shall report to the next meeting of the WALC why the testing was required and what noise management practices were followed.

### **Proposed Parallel Runway**

- (a) Prior to the commencement of construction of the proposed parallel runway, and in conjunction with the outline plan of works required by Section 176A, a Construction Management Plan shall be submitted to the Council for review and approval. The purpose of the Construction Management Plan shall be to:
  - (i) Describe the methods proposed for the construction of the runway;
  - (ii) Describe what actions will be taken to manage the actual or potential effects of construction activities associated with the runway constructions;
  - (iii) Ensure compliance with the conditions of the designation as they relate to construction of the parallel runway.

- (b) The Construction Management Plan shall include the following information:
  - (i) Description of all the runway construction works including identification of fill sources, access roads and tracks, identification of areas for storing plant and machinery, mitigation measures, monitoring and reporting to be undertaken.
- (c) If fill is to be transported from off-site a Construction Traffic Management Plan shall be prepared in conjunction with the New Zealand Transport Agency and submitted to Council for approval. The Construction Traffic Management Plan shall incorporate:
  - (i) Proposed construction haulage routes;
  - (ii) Construction traffic volumes over haulage routes.

### **4. MAKE THE FOLLOWING CHANGES TO VOLUME 3 – DISTRICT PLAN MAPS:**

## **Volume 3 District Plan Maps**

### **5. AMEND DISTRICT PLAN MAP 18A TO INCLUDE THE ADDITIONAL SITES NOW INCLUDED WITHIN DESIGNATION 64 AERODROME PURPOSES.**

## Appendix B

### 1. MAKE THE FOLLOWING CHANGES TO APPENDIX 1 DESIGNATIONS:

The changes recommended are as follows. Additions are underlined. Deletions are ~~struck through~~.

### 2. MAKE THE FOLLOWING CHANGES TO APPENDIX 1 SECTION E.2 - AIRPORT APPROACH AND LAND USE CONTROLS:

The changes recommended are as follows. Additions are underlined. Deletions are ~~struck through~~.

## E.2 Airport Approach and Land Use Controls

This designation applies in respect of the airspace in the vicinity of the Wanaka Airport. It defines essential airport protection measures, transitional slopes and surfaces, aircraft take off climb and approach slopes and airport height and obstacle clearances as defined below and as shown on District Plan Maps.

The objective of these restrictions is to limit any activity and the construction of any structure which may inhibit the safe and efficient operation of the Wanaka Airport. These restrictions directly relate to the main runway and runway extension specified in Designation 64 - Aerodrome Purposes and the future alternative parallel runway. The strip and RESA end locations of the existing, extended and replacement runway are contained in Table 1 below:

Table 1: Location of strip and RESA ends

Location	Co-ordinates (NZMG)	
	X	Y
Existing runway south east strip end	<u>5602307.23</u>	<u>2213157.69</u>

Extended runway south east RESA end	<u>5602171.51</u>	<u>2213290.70</u>
Existing runway north west strip end	<u>5603250.88</u>	<u>2212232.91</u>
Extended runway north west RESA end	<u>5603815.09</u>	<u>2211679.99</u>
Replacement runway south east RESA end	<u>5602236.60</u>	<u>2213357.12</u>
Replacement runway north west RESA end	<u>5603880.18</u>	<u>2211746.41</u>

## Airport Protection

The Airport protection surfaces are described as:

### (a) Take-off Climb and Approach Surfaces

#### General

In order to provide the maximum flexibility for the existing and future development of the runway layout, the protection surfaces and associated height controls extend laterally to include the existing sealed runway as well as the proposed replacement sealed runway. This requires the length of the origin points of the OLS (referred to as the "inner edges") to be 243.0m being 121.5m either side of the inner edge centreline position defined in table 2 below.

For this reason the area that is covered by height controls is larger than would be the case with a single runway that was not planned to be extended or replaced.

The nominal centreline of this enlarged inner edge arrangement is 46.50m north east of the existing runway centreline and the ends of the inner edges are 121.50m either side of the centreline.

Table 2: Location of inner edge centre points

Inner edge	Co-ordinates (NZMG)	
	X	Y
<u>south east end</u>	<u>5602375.47</u>	<u>2213155.92</u>
<u>north west end</u>	<u>5603676.22</u>	<u>2211881.18</u>

The runway strip edges are 75m south west of and parallel to the existing runway centreline and 75m north east of and parallel to the future replacement runway centreline. For height control purposes the strip edges end where they intersect the inner edges of the approach surfaces.

The runway strip edges are 75m south west of and parallel to the existing runway centreline and 75m north east of and parallel to the future replacement runway centreline. For height control purposes the strip edges end where they intersect the inner edges of the approach surfaces.

#### South East End of Existing and Future Main Runways

##### (i) Inner edge location

The south east takeoff and approach surfaces are combined into a single takeoff/approach surface.

The takeoff and approach surfaces have the same inner edge location (as defined in table 2) and length of 243.0m.

The inner edge commences at a height of 339.4m AMSL at the south east end.

##### (ii) Takeoff/Approach Surface

The take-off/approach surface at the south eastern end commences at the inner edge and rises at a gradient of 2.0% with its centreline on a bearing of 135.6° grid. The surface continues on a bearing of 135.6° until a distance of 15,000m from the inner edge.

The edges of the approach surface commence at the inner edge end point locations and expand outward at 15% of the distance along the centreline until the end of the surface.

The final total width of the approach surface is 4743.0m at 15,000m from its inner edge.

#### North West End of Future Main Runway

##### (iii) Inner edge location

The north west takeoff and approach surfaces are combined into a single takeoff/approach surface.

The takeoff/approach surface inner edge location is defined in table 2 and its length is 243.0m.

The inner edge commences at a height of 347.84m ASML at the north west end.

##### (iv) Takeoff/approach Surface

The combined takeoff/approach surface at the north west end commences at the inner edge and rises at a gradient of 2.0% with its centreline on a bearing of 315.6° grid. The surface continues on a bearing of 315.6° until a distance of 4,780m from the inner edge. At that point the surface turns 195° north with a radius of 2400m and continues on a bearing of 150.6°.

The edges of the surface commence at the inner edge end point location and expand outward at 15% of the distance along the centreline until the end of the surface 15,000m from the inner edge.

The final total width of the surface is 4743.0m at 15,000m from its inner edge.

#### **(b) Transitional, Inner Horizontal and Conical Surfaces**

The transitional, inner horizontal and conical surfaces described below are based on the extremities of the runway strip edges for the combined existing and future parallel runways. The strip edge on the north east is 75m to the north east of and parallel to the proposed alternative runway centreline. The strip edge on the south west side

is 75m to the south west of and parallel to the existing runway centreline.

For height control purposes the strip edges end where they meet the inner edges of the approach surfaces.

(i) Transitional Side Surfaces

The transitional side surfaces extend from the sides of the strip and the approach surfaces, upwards and outwards at a gradient of 1v:7h (14.3%) extending until they reach the inner horizontal surface.

(ii) Inner Horizontal Surface

The inner horizontal plane is located at a height of 393m AMSL (45m above the runway reference height) and extends out to a distance of 4000m measured from the periphery of the runway strip.

(iii) Conical Surface

The conical surface slopes upward and outward from the periphery of the inner horizontal surface rising at a gradient of 5% to a height of 498m AMSL (150m above the aerodrome reference height).

**Penetration of airport protection surfaces**

No object, including any building, structure, mast, pole or tree, but excluding a control tower, shall penetrate the takeoff/approach or transitional surfaces without prior approval of the requiring authority.

No object, including any building, structure, mast, pole or tree shall penetrate the horizontal and conical surfaces except with prior approval of the requiring authority, or where the object is determined to be shielded by an existing immovable object in accordance with recognised aeronautical practice.

If requested by a landowner with a site specific development proposal affected by the obstacle limitation surfaces, the requiring authority

shall provide them with a terrain shielding drawing for that portion their site.

Note: any person proposing to construct or alter a structure that penetrates the airspace protection surfaces described in this designation is subject to the requirements of Part 77 of the Civil Aviation Rules and must notify the director of Civil Aviation 90 days before the proposed date of commencement of construction or alteration. Notification must be in the form specified in Rule 77-13 and be submitted at least 90 days before the proposed date of commencement of construction or alteration.

~~The approval of the Queenstown Lakes District Council is to be obtained prior to any activity established or structure or building erected with a height of more than 7 metres and which penetrates any of the surfaces described in E2 and indicated on the District Plan Maps. These surfaces are as follows:~~

~~Take-off Climb and Approach Surfaces~~

~~(i) There is a take-off climb and approach protection surface at each end of the main runway strip. The take-off and approach surfaces differ in detail, but both are protected by a slope extending upward and outward from each end of the strip.~~

~~Obstacle Limitation Surfaces at East Runway End~~

~~A straight runway centreline extension satisfies the 1:50 slope requirements, as shown on District Plan Maps.~~

~~At the eastern end of the strip, aircraft must turn 5° to the left after crossing the aerodrome boundary after the end of the existing 11 runway. This is recognised in the establishment of a separate curved obstacle clearance path at a slope of 1:62.5. The lateral divergence of the curved protection surface is 12.5% (1:8).~~

~~Obstacle Limitation Surfaces at West Runway End~~

~~Straight line flight paths are obstructed by the ridge 24m above the runway level at about 1200m from the extended runway strip end (1:50 gradient). The Peninsula in Lake Wanaka is a more distant obstruction. Straight in obstacle~~

limitation surfaces with a 1:50 slope, as shown on District Plan Maps, satisfy the slope requirements, with the provision for the engine failure flight path to the west.

At the western end of the strip, aircraft must turn 60° to the right some 365m after the end of the existing 29 runway. This is recognised in the establishment of a separate curved obstacle clearance path at a slope of 1:62.5. The lateral divergence of the curved protection surface is 12.5% (1.8). The curved path allows for a setback of the obstacle surface of 4.6m at the start of the turn.

(ii) Each take-off climb and approach protection surface extends over a horizontal distance specified below and is symmetrically disposed about the centreline of the flight protection surface, with its sides diverging uniformly outwards from each end of the length of inner edge at each strip end.

The take off and approach control surfaces vary as shown in the following table:

Element	Take-off Surface	Approach Surface
Inner Edge Length	300m	150m
Divergence	4:8	4:10
Slope	1:50	1:40
Length	15000m	3000m

(iii) For airport protection the worst case (ie most restrictive) surface profile has been adopted as follows:

For the runway the length of inner edge adopted is 150m either side of the extended runway centreline and the rate of lateral divergence is 12.5% (7°7'30").

The take-off climb/approach surface at each end of the ultimate main strip rises at a gradient of 2.0% (1 in 50) over a horizontal distance of 15000m to a final width of 1200m and then continues along the extended runway centreline.

**Note:** Where ground rises so that it penetrates or becomes close to the take off climb/approach surface, then this surface may be adjusted in conformity with the ground to provide a vertical clearance of 10.7m above ground level.

### Transitional Surfaces

(iv) These extend upwards and outwards from the sides of the runway strip at a gradient of 14.3% (1 in 7) for the strip to intercept the inner horizontal surface.

(v) Transition slopes extend at the same heights beyond each end of the runway strip to intercept the approach protection surfaces.

### Inner Horizontal Surface

The inner horizontal surface is a plane surface at a height of 45m above the airport datum level of 348m enclosed within a 4000m radius drawn from the ends of the runway strip, and a 4000m distance either side of the runway strip.

**Note:** Where ground rises so that it penetrates or becomes close to the inner horizontal surface, then this surface may be adjusted in conformity with the ground to provide a vertical clearance of 10.7m above ground level.

### Conical Surface

The conical surface extends from the periphery of the inner horizontal surface upwards and outwards at a slope of 5% (1 in 20) to a height of 150m above the aerodrome datum level

**Note:** Where ground rises so it penetrates or becomes close to the conical surface, then this surface may be adjusted in conformity with the ground to provide a vertical clearance of 10.7m above ground level.

## 3. MAKE THE FOLLOWING CHANGES TO VOLUME 3 – DISTRICT PLAN MAPS:



# Volume 3 District Plan Maps

4. *AMEND TO DISTRICT PLAN MAP FIGURES 3 AND 4 TO REFLECT CHANGES FROM DECISION ON NOTICE OF REQUIREMENT FOR DESIGNATION 65*
5. *AMEND DISTRICT PLAN MAP FIGURES 3 AND 4 TO SHOW ALL POTENTIAL TERRAIN PENETRATIONS OF THE OLS AS DEPICTED ON SHEET 3 (OF 3) ON DRAWING NUMBER 8/8934, AS SUBMITTED BY MS NOBLE AT THE HEARING*
6. *ADD TEXT TO DISTRICT PLAN MAP FIGURES 3 & 4 TO REFER TO DESIGNATION 65 AND APPENDIX 1 SECTION E.2.*