

APPENDIX D

Proposed change to conditions relating to Designation 65 and District Plan Maps

The changes proposed by this Plan change are as follows. Additions are underlined.

1. Amend conditions on Designation 65 Wanaka Airport as follows:

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 – Airport 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:

<u>Location</u>	<u>Co-ordinates (NZMG)</u>	
	<u>X</u>	<u>Y</u>
<u>Existing runway south east strip end</u>	<u>5602307.23</u>	<u>2213157.69</u>
<u>Extended runway south east RESA end</u>	<u>5602171.51</u>	<u>2213290.70</u>
<u>Existing runway north west strip end</u>	<u>5603250.88</u>	<u>2212232.91</u>
<u>Extended runway north west RESA end</u>	<u>5603815.09</u>	<u>2211679.99</u>
<u>Replacement runway south east RESA end</u>	<u>5602236.60</u>	<u>2213357.12</u>
<u>Replacement runway north west RESA end</u>	<u>5603880.18</u>	<u>2211746.41</u>

Airport Protection – [*Delete all text from this point and replace with the following*]

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

<u>Inner edge</u>	<u>Co-ordinates (NZMG)</u>	
	<u>X</u>	<u>Y</u>
<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.

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).

Any object including any building, structure, mast, pole or tree, but excluding a control tower, which penetrates any of the takeoff/approach or transitional surfaces shall be prohibited.

No object, including any building, structure, mast, pole or tree, shall penetrate the horizontal and conical surfaces of Wanaka Airport except where the object is determined to be shielded by an existing immovable object in accordance with recognised aeronautical practice or prior approval of Queenstown Lakes District Council as requiring authority for Wanaka Airport has been obtained.

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.

Prior contact with Wanaka Airport may assist in determining whether an object will penetrate these surfaces or if an object may be deemed to be shielded.

2. **Make consequential amendments to District Plan Maps Figures 3 and 4 to reflect these changes**
3. **Amend Proposed Figures 3 and 4 to show terrain penetrations of these areas. Add text to Figures 3 & 4 to refer to the Designation Number and Section.**