Variation 1 to the Proposed Waikato District Plan (Stage 1)

Te Kowhai Airport Obstacle Limitation Surface

Explanation:

Variation 1 proposes to amend the Proposed Waikato District Plan (2018) in two ways:

1. *Replace the maps showing the Te Kowhai Airport Obstacle Limitation Surface with new maps. The main change is to extend the inner horizontal surface out to 2500 metres from the runway centre line, instead of 2000 metres, as incorrectly shown on the 2018 maps. The new maps also represent the location and shape of the obstacle limitation surface as clarified in the Appendix 9 amendments.*

2. *Amend text in Appendix 9. This clarifies and more precisely defines the location and shape of the Te Kowhai Airport Obstacle Limitation Surface. The text previously stated that the approach surface and the inner horizontal surface extended 2500m from the runway, and those distances remain unchanged in the text.*

A building, structures, trees and vegetation height control rule applies to land under the obstacle limitation surface to ensure aircraft safety by keeping flight paths clear of obstructions. The obstacle limitation surface slopes up and out from the runway, so properties will not all be affected in the same way.

Where the obstacle limitation surface is close to the ground there may be a practical effect on the development potential of the land. A map showing where the obstacle limitation surface is close to the ground is on the Waikato District Council website.

For many properties, the height control due to the obstacle limitation surface will be over 45m above ground level, so the obstacle limitation surface will make little practical difference to those property owners, unless they wish to develop an exceptionally high structure.

People who made submissions on the obstacle limitation surface in 2018 may submit again on the changes in Variation 1. In any case, the 2018 submissions will still be considered by the hearings panel.

The proposed amendments to Appendix 9 and a replacement map are shown on the following pages.

Submissions on these are open from 29 June 2020 until 5pm 31 July 2020.

Amendment to Appendix 9: Te Kowhai Airfield

(Red underlined text is to be added and red struck-through text is to be deleted)

1 Introduction

This appendix is referred to in the Residential, Village and Rural Zone building rules. The safe operation of aircraft using the Te Kowhai Aerodrome requires that each runway should be provided with take-off climb and approach, and transitional and inner horizontal surfaces such that aeroplanes taking off or landing have a clear obstacle free surface in which to ~~carry out the initial part of the climb or final part of the approach~~ take-off, land and circle for approach. The Civil Aviation Authority of New Zealand has adopted specifications defining these surfaces about and above an Aerodrome which, in the interests of safe flight, should not be penetrated by ~~there must be no~~ obstacles. These surfaces are known as obstacle limitation surfaces and are defined in terms of distances from the runway and heights relative to the runway~~s~~ for protection of aircraft in the vicinity of the aerodrome.

The runway is on the following land: Lot 1 DP 434641, Section 8 SO 495676 (Certificates of Title 530701, 755892).

2 Runway and Associated Runway Strip

The runway and associated runway strip is defined as follows:

(a) Runway: the runway is 923.8 metres long and 18 metres wide.

(b) Runway strip: the runway is contained within the runway strip. The strip is 983.8 metres long and 60 metres wide.

(c) The coordinates and elevations of the four corners of the strip in terms of Mount Eden Circuit New Zealand Geodetic Datum 2000 and Moturiki datum are as follows:

mN	**mE**	**Elevation**
703839.64	434543.48	25.2
703783.55	434564.78	25.2
704132.77	435484.50	26.6
704188.86	435463.20	26.6

3 Obstacle Limitation Surfaces

The obstacle limitation surfaces (OLS) associated with this runway strip are defined as follows.

3.1 Approach and Take-off Surfaces

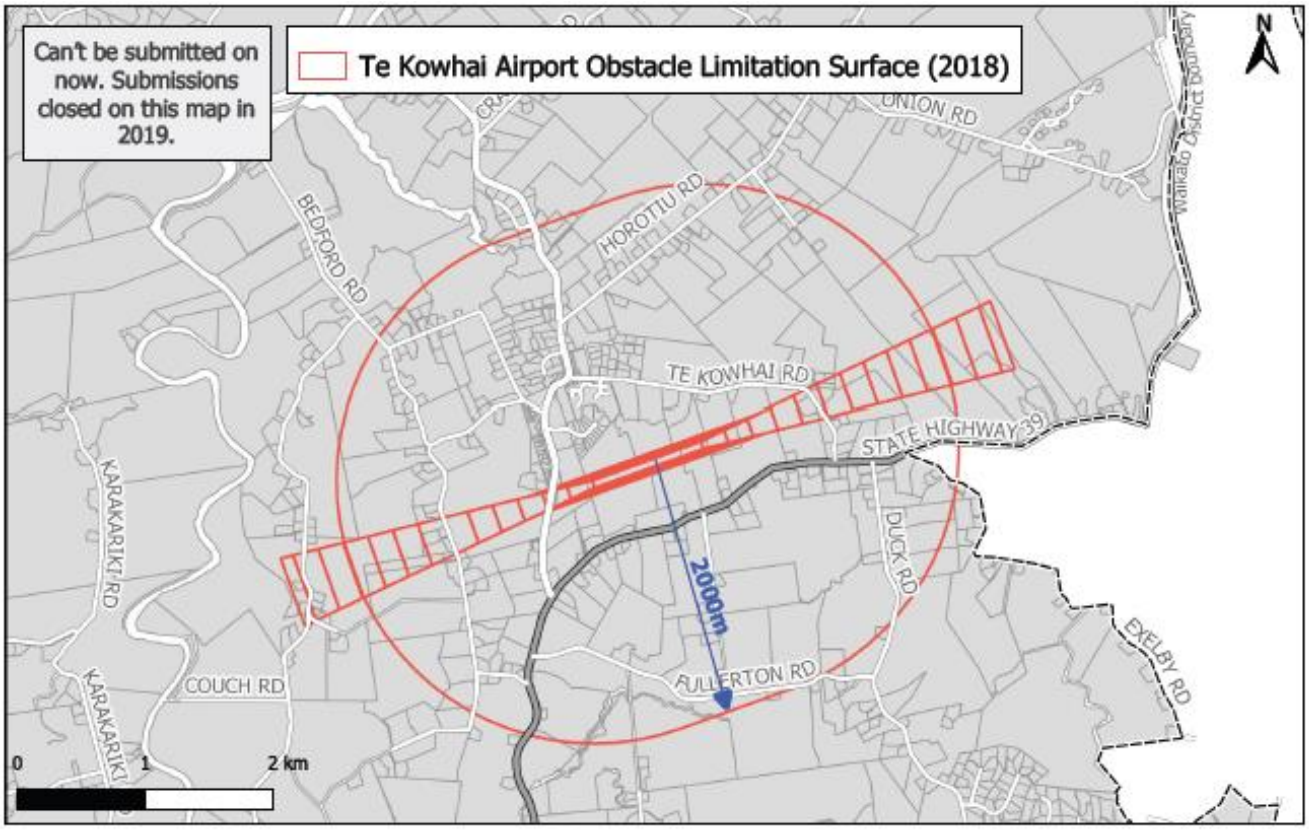
There is a~~n~~ combined approach and take-off surface at ~~both~~ each end~~s~~ of the runway strip. Each approach and take-off surface is a truncated fan originating from a 60 metres wide base centred 37.48m inwards from the western ~~at the~~ end of the runway strip and 39.6m inwards from the eastern end of the runway strip. The ~~approach~~ surfaces extend either side of the extended centre line of the runway strip for a horizontal distance of 2500 metres (2.5 kilometres). Each ~~approach~~ surface rises upwards and outwards at a gradient of 1 vertical to 40 horizontal (1:40); the sides of the ~~approach~~ surfaces splay ~~outwards~~ from their bases outwards at a rate of 1 vertical to 10 horizontal (l:10). The base of the western ~~approach~~ surface commences at a height of 25.2 metres above Moturiki Datum and the base of the eastern ~~approach~~ surface commences at a height of 26.6 metres above Moturiki Datum.

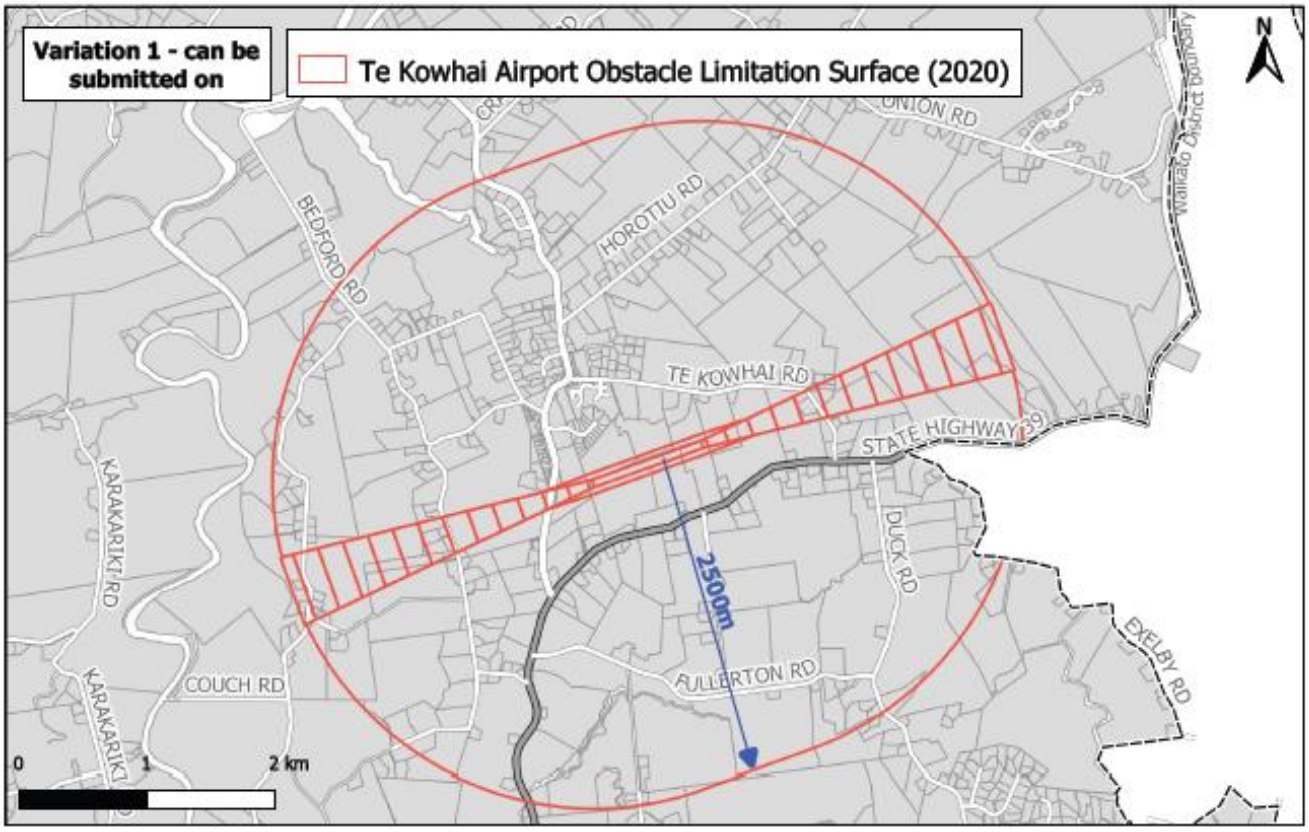
3.2 Transitional Side Surfaces

The transitional side surfaces rise upwards and ~~sideways~~ outwards from the sides of the runway strip and each approach/take-off surface at a gradient of 1 vertical to 5 horizontal (1:5) to a height of 36.6 metres above Moturiki Datum. The surface~~s~~ then rise~~s~~ vertically from 36.6 metres to 71.6 metres above Moturiki Datum. The height contours of the transitional surface bend inwards from the planes of the approach and take-off OLS bases to meet the corresponding height contours of the approach and take-off OLS. ~~This 'inner horizontal' surface at 71.6 metres is 45 metres above aerodrome level and extends from the runway centre line and end of the runway strip out to a distance of 2500m.~~

3.3 Inner Horizontal Surfaces

The 'inner horizontal' surface extends outwards from the runway centre line and ends of the runway strip out to a distance of 2500m at a height of 71.6 metres above the Moturiki Datum.





Waikato DISTRICT COUNCIL

Figure 1: Proposed changes to Te Kowhai Airport Obstacle Limitation Surface (OLS) (2020)

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