

Section 32 Report

Te Kowhai Airport Obstacle Limitation Surface (OLS)

prepared for

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

June 2020



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I OVERVIEW AND PURPOSE

I.1 Topic Description

The Te Kowhai Airport Obstacle Limitation Surface is described in detail (which includes elevations and coordinates) in Appendix 9 of the Proposed Waikato District Plan as notified and is also shown on the planning maps. The Obstacle Limitation Surface is a three-dimensional area encompassing distance from the runway as well as height.

The purpose of the Te Kowhai Airport Obstacle Limitation Surface is to maintain an obstacle free surface / area (within airspace) to help ensure the safe operation of aircraft using the Te Kowhai airfield.

In the assessment of the submissions for the Te Kowhai Airpark Zone, it has become apparent that the spatial extent of the Te Kowhai Airport Obstacle Limitation Surface as notified in the planning maps does not match the detailed descriptions in Appendix 9. Appendix 9 describes the Obstacle Limitation Surface as extending 2500m from the runway, yet the planning maps only show it at 2000m. There is therefore an oval of 500m width that should have been included on the planning maps where the heights of buildings and trees have more stringent controls than the rest of the District.

The Proposed District Plan maps (as notified) showed the transitional side surfaces extending straight out to the approach and take-off surfaces. However, the transitional side surfaces should have been shown tapered in to the correct height contours to match the approach and take-off surfaces.

Progressing a variation to the Proposed District Plan (Stage 1) will not only correct the mapping errors and ensure more consistent provisions, but also enable minor changes to the text in Appendix 9 sections 1 and 3 to more accurately describe the Te Kowhai Airport Obstacle Limitation Surface. The amendments to the text in Appendix 9 do not warrant a variation to the Proposed District Plan on their own; however a variation provides the opportunity to improve the wording of Appendix 9 and thus the clarity.

1.2 Significance of this topic

The Airport Obstacle Limitation Surface must be correctly and clearly detailed within the District Plan and correctly shown on the District Plan maps. The correct Airport Obstacle Limitation Surface will help ensure that aeroplanes taking off or landing have a clear obstacle free surface over which to carry out the initial part of the climb or final part of the approach.

The purpose of this variation is to correct two mapping errors in the notified Proposed District Plan to match the text in Appendix 9. Although the amendments are minor, it is extending the mapping of the Te Kowhai Airport Obstacle Limitation Surface to include an additional 115 properties. These properties were already captured by the description of the Te Kowhai Airport Obstacle Limitation Surface in Appendix 9, but were not identified on the planning maps.

1.3 Resource Management issues to be addressed

1. Safeguarding the operation of the Te Kowhai Aerodrome

The Proposed District Plan as notified sought to safeguard the existing and future operations of the Te Kowhai Airport, which included changes to the Operative District Plan Obstacle Limitation Surface, to provide for aircraft to also operate under Instrument Flight Rules (IFR) conditions.

2. Safety

The purpose of the Obstacle Limitation Surface is to ensure the safe operation of aircraft using the Te Kowhai Airport by providing the runway with take-off climb and approach surfaces free of obstacles such as buildings and trees. It also provides a safer environment for people within buildings by reducing the risk of being hit by a plane.

1.4 Higher Level Planning Documents and Legislation

Operative Waikato Regional Policy Statement (WRPS) 2016

The Operative Waikato Regional Policy Statement defines ‘infrastructure’ as the following:

Infrastructure means i) an airport as defined in section 2 of the Airport Authorities Act 1966.

The Te Kowhai Airport would meet the definition of airport in section 2 of the Airport Authorities Act 1966. Therefore the Te Kowhai Airport is defined as “infrastructure” under the WRPS. The Te Kowhai Airport is not mentioned in the definition for regionally significant infrastructure in the WRPS however.

The WRPS mentions the word 'infrastructure' frequently. The WRPS includes the following objectives that relate to infrastructure and the Te Kowhai Airport:

- 3.1 Integrated management
- 3.10 Sustainable and efficient use of resources
- 3.12 Built environment

The policy direction from the above objectives relates to the sustainable, efficient, planned use of natural and physical resources, taking into account environmental, social, economic and cultural wellbeing and needs of current and future generations.

There are no National Policy Statements that are relevant to this topic.

1.5 Current Objectives, Policies, Rules and Methods

The Proposed District Plan as notified sought to provide for current and future operational needs of the Te Kowhai Airport through airspace protection. One of the most effective tools is the Airport Obstacle Limitation Surface. This protection is provided through an objective, two policies, rules, part of an appendix which details the Obstacle Limitation Surface and the notified District Plan maps.

Variation 1 to the Proposed Waikato District Plan (Stage 1) seeks to provide airspace protection through accurate identification of the Te Kowhai Airport Obstacle Limitation Surface.

1.6 Information and analysis

The Te Kowhai Airport Obstacle Limitation Surface details as notified in the Proposed District Plan are contained in Appendix 9 Te Kowhai Airfield and the District Plan maps. These were reviewed against each other and the Civil Aviation Authority of New Zealand Advisory Circular AC139-7 Aerodrome Standards and requirements. Following that analysis it was apparent that either the text within Appendix 9 Te Kowhai Airfield or the District Plan maps was incorrect and would require amendment through a variation.

The following documents have been used to guide this variation:

- Civil Aviation Authority of New Zealand Advisory Circular AC139-7 Aerodrome Standards and requirements
- Email from NZTE Operations Limited legal representative received 17 January 2020
- Astral Limited Aviation Technical and Environmental Consultants letter dated 15 January 2020
- Amended Appendix 9 Te Kowhai Airfield Sections 1 and 3 text provided by NZTE Operations Limited received 17 January 2020

I.7 Consultation undertaken

Waikato District Council planner undertook the following consultation:

Date	Group	Subject Matter	Feedback
8/01/2020	NZTE Operations Limited	OLS – District Plan maps and District Plan Appendix 9 text	Confirmation that the District Plan maps show the OLS incorrectly. Amendments to text in Appendix 9 as proposed by NZTE Operations Limited.
20/2/2020	Ngaai Uri O Maahanga	They were sent a letter advising them about Variation I. They were also sent a copy of the draft variation document.	No feedback was received from Ngaai Uri O Maahanga.
20/2/2020	Waikeri Marae	They were sent a letter advising them about Variation I. They were also sent a copy of the draft variation document.	No feedback was received from Waikeri Marae.
25/2/2020	Hamilton City Council	They were sent a letter advising them about Variation I.	No feedback was received from Hamilton City Council.
25/2/2020	Ministry for the Environment	They were sent a letter advising them about Variation I.	No feedback was received from the Ministry for the Environment.
25/20/2020	New Zealand Civil Aviation Authority	They were sent a letter advising them about Variation I. They were also sent a copy of the draft variation document.	NZCAA responded with the feedback discussed below. NZCAA made no comment on the draft variation.
28/02/2020	Waikato-Tainui	They were sent a letter advising them about Variation I, They were also sent a copy of the draft variation document, a map showing the correct OLS and a map showing a comparison of the notified version of the OLS and the correct version of the OLS.	No feedback was received from Waikato Tainui.

District Plan maps

NZTE Operations Limited advised Council that the Proposed District Plan maps as notified contained two errors:

- (a) The inner horizontal surface of the OLS was shown at a distance of 2,000m out from the runway centre line. However, the inner horizontal surface should have been shown out to a distance of 2,500m from the runway centre line.
- (b) The transitional side surfaces of the OLS were shown extending straight out to the approach and take-off surfaces. The transitional side surfaces should have been shown tapered in to the correct height contours to match the approach and take-off surfaces.

A variation to the Proposed District Plan planning maps would ensure that the Obstacle Limitation Surface was compliant with the relevant Civil Aviation Authority of New Zealand requirements for aircraft operating at Te Kowhai Aerodrome on Visual Flights Rules (VFR) and Instrument Flight Rules (IFR) basis.

Appendix 9 text

NZTE Operations Limited suggested amendments to the notified text in Appendix 9 Te Kowhai Airfield sections 1 and 3, which they consider will more accurately reflect / describe the OLS, which may assist Plan users to better interpret the OLS requirements.

This Variation 1 to the Proposed District Plan seeks to address the feedback provided by NZTE Operations Limited above.

New Zealand Civil Aviation Authority

The New Zealand Civil Aviation Authority provided the following feedback:

“Generally, the obstacle limitation surfaces around an aerodrome declared within the district plan are independent of those required under Civil Aviation Rules for flight safety. Saying that, they often match up for obvious reasons.

Therefore, CAA cannot advise what is appropriate for district plan requirements, however the appropriate CAA advisory circulars AC 139-6 or AC 139-7 provide guidance as to the dimensions to meet flight safety requirements for your aerodrome and can be followed. In particular, AC 139-7 may be more appropriate for Te Kowhai aerodrome.” The CAA provided links to those advisory circulars.

Upon review of the CAA advisory circular AC 139-7, it appears that the changes to the District Plan maps and text as detailed above would ensure that the Obstacle Limitation Surface within the Proposed District Plan was consistent with the relevant Civil Aviation Authority of New Zealand requirements for aircraft operating at Te Kowhai Aerodrome on Visual Flights Rules (VFR) and Instrument Flight Rules (IFR) basis. No change to the draft variation is needed.

2 POLICIES AND RULES, APPENDICES AND MAPS

2.1 Identification of Reasonably Practical Options – Objective 9.2.1(a)

The following assessment consists of an examination of all reasonably practicable options for achieving Objective 9.2.1(a). This high-level screening process considers the effectiveness of each option. Only those options considered to be reasonably practicable will be evaluated under section 2.1.1.1.

Objective	9.2.1 Objective – Te Kowhai Airpark			
Options Approach to achieve objective(s)	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Carry on with the analysis of the submissions and decision through the hearing	This approach would not be effective in addressing the issue.	This approach is within Council's powers, but may result in a judicial review from landowners who thought they were outside the Obstacle Limitation Surface based on the planning maps and thus missed their opportunity to submit.	The risk is that the inconsistencies between the planning maps and text are raised through the hearing, and Council has to progress a variation later in 2020. This would compromise the overall hearing schedule, as well as being disruptive to the Te Kowhai Airpark hearing as it would likely result in two hearings on the same matter.	Discard.
Withdraw the planning map for Te Kowhai and re-notify a replacement map	This approach would be effective in addressing the issue.	It is within Council's powers.	It would result in submitters having to put in multiple submissions. There is a risk that submitters do not re-submit and miss their opportunity to be involved. High risk of confusion by	Discard. Although the Resource Management Act allows for withdrawal of a proposed plan up until the point where a decision is made (Clause 8D of Schedule 1), it is a complicated

			<p>submitters.</p> <p>It would ensure that landowners within the extended Obstacle Limitation Surface could put in a submission.</p>	<p>process. The submissions that were received on the Obstacle Limitation Surface (and arguably Te Kowhai Airpark provisions) would fall away, and those submitters would have to re-submit.</p>
<p>Progress a variation to the Proposed District Plan (Stage I)</p>	<p>This approach would be effective in addressing the issue.</p>	<p>It is within Council's powers.</p>	<p>It would ensure that landowners within the extended Obstacle Limitation Surface could put in a submission.</p> <p>This option would enable the submissions that have already been received on the Te Kowhai Airpark provisions to remain "alive".</p> <p>The changes proposed to be tightly focused on just the Obstacle Limitation Surface.</p> <p>The effect of a variation is that upon notification, the maps and Appendix as notified in 2018 are varied by the new maps and Appendix.</p> <p>Submissions made on the 2018 maps and Appendix</p>	<p>Recommended approach.</p>

			<p>are deemed to be submissions on the variation.</p> <p>The variation will merge in and become part of the proposed plan (Stage I) as soon as the variation and proposed plan reach the same procedural stage. This will occur before the hearing of the Te Kowhai Airpark topic.</p>	
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2.2 Evaluation of Selected Options

Objective 9.2.1	
Option(s)	
Explanation of the approach	A variation to the Proposed District Plan (Stage 1) will allow the planning maps to be corrected to match the text, and allow the wording of Appendix 9 to be updated to be clearer.
Policies and rules that form the package / implement this approach	<ol style="list-style-type: none"> 1. Amended planning maps showing the Obstacle Limitation Surface for Te Kowhai Airfield. 2. Amended text in Appendix 9 to improve clarity.
Overall scale of effects	This amendment will affect the 115 properties which lie between 2000m and 2500m from the centreline of the Te Kowhai airfield runway.
Overall significance of effects	The full extent of properties were addressed in Appendix 9, however the planning maps did not accurately depict the extent. The significance of effects is moderate for the properties that lie between 2000m and 2500m from the centreline of the Te Kowhai airfield runway, but low in the context of the entire District.
Rigour applied to assess costs, benefits and economic growth and employment	Due to the scale and significance, an economic analysis was not undertaken.
Costs	<p>Economic: May affect the value of the properties within 2000m and 2500m from the centreline of the Te Kowhai airfield runway.</p> <p>Social: May affect the development potential for the properties within 2000m and 2500m from the centreline of the Te Kowhai airfield runway. May increase tension between the airfield and the local community.</p> <p>Environmental: Reduces the height of trees and vegetation within the Obstacle Limitation Surface.</p> <p>Cultural: None.</p>
Benefits	<p>Economic: Ensures compliance with the Civil Aviation Authority requirements. Economic benefits to the airfield with more users.</p>

Objective 9.2.1	
Option(s)	
	<p>Social: Compliance with the Civil Aviation Authority requirements may make the airfield a more attractive resource for the aviation community. Provides a safer environment for pilots and users of the airfield.</p> <p>Environmental: Results in a more open, lower level of development.</p> <p>Cultural: None.</p>
Opportunities for economic growth and employment	May result in more users of the airfield and any economic benefits of that.
Certainty of effects	The effects are certain.
Sufficiency of information	There is sufficient information.
Risk of acting or not acting if there is uncertainty or insufficient information.	Not applicable as the effects and risks of acting are well understood.
Effectiveness in achieving the objective(s)	<p>This approach will be the most effective in achieving Objective 9.2.1 Objective –Te Kowhai Airpark</p> <p><i>(a) To use and develop Te Kowhai Airpark as a strategically-significant, safe and economically sustainable airpark that meets the current and future needs of the aviation community.</i></p>
Efficiency in achieving the objective(s)	Consistency between the Proposed District Plan text and maps is an efficient approach and limits confusion and potential for errors.

2.3 Recommended Option

Based on the evaluation above, the preferred option to address Objective 9.2.1(a) is amending text proposed for Appendix 9 section 1 and 3 and amending the District Plan maps to accurately identify the spatial extent of the Te Kowhai Airport Obstacle Limitation Surface.

3 CONCLUSION

After undertaking an evaluation as required by Section 32 of the RMA, amending the District Plan maps and the Obstacle Limitation Surface text in Appendix 9 are considered the most appropriate way to achieve the Purpose of the RMA (Section 5) for addressing the Te Kowhai Airport Obstacle Limitation Surface.

It is considered that amending the District Plan maps and the Obstacle Limitation Surface text in Appendix 9 outlined above are the most appropriate way for achieving Objective 9.2.1(a), having considered:

- (i) other reasonably practicable options for achieving the objective; and
- (ii) assessing the efficiency and effectiveness of the provisions in achieving the objective.

4 GLOSSARY

Terminology and abbreviations used throughout this report include:

Term/ Abbreviation	Description
CAA	Civil Aviation Authority
IFR	Instrument Flight Rules
ODP	Operative Waikato District Plan
OLS	Obstacle Limitation Surface
PDP	Proposed District Plan as notified
VFR	Visual Flight Rules
WRPS	Waikato Regional Policy Statement