

# **Section 32 Report – Part 2**

## **Te Kowhai Airpark Zone**

prepared for the

## **Proposed Waikato District Plan**

**July 2018**



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# I OVERVIEW AND PURPOSE

The purpose of this s32 Report is to provide both context and the approach undertaken by Council for the development of objectives, policies and rules included within the framework of the Proposed Waikato District Plan as they relate to the use and management of aviation and aviation-related activities at the Te Kowhai Airpark. The provisions are needed to ensure the Te Kowhai Airfield can continue to operate as urban intensification occurs around it, given it is a valuable and unique resource in the Waikato District.

This evaluation report should be read in conjunction with Part I Section 32 Report – Introduction to the Evaluation Report, which provides the context and approach for the PDP as a whole.

## I.1 Topic Description

Te Kowhai airfield is zoned Rural under the Operative Waikato District Plan (ODP). Although aviation activities at Te Kowhai are recognised in the ODP through Obstacle Limitation Surfaces (OLS) and Air Noise Boundary (ANB) provisions, there are no specific policies or provisions which provide for the development of airparks or airpark-related commercial activity.

Development of the site for airpark purposes will necessitate the re-zoning of the site from 'Rural' to a special activities zone, which is tailored to the operation and development of Te Kowhai Airpark. The new zone provisions are needed to ensure the Te Kowhai Airfield can continue to operate as urban intensification occurs around it, given it is a valuable and unique resource in the Waikato District.

Concurrent with the rezoning, opportunity is being taken to future proof the airfield in order that it can operate on both a Visual Flight Rule (VFR) and an Instrument Flight Rule (IFR) basis. In order to operate under IFR, the aerodrome is required to comply with Civil Aviation Circular AC139-7 Aerodrome Standards and Requirements. Compliance with Circular AC139-7 will necessitate changes to the OLS and transitional side surfaces and those changes will need to be reflected in the Proposed District Plan.

## I.2 Significance of this Topic

An assessment of scale and significance for this topic is provided in section 4 of this report. The following criteria is used to assess scale and significance:

- Degree of change from the status quo;
- Extent of potentially affected stakeholders;
- Degree of impact on Maori / iwi;
- Geographic scale of impacts; and
- Type of effect.

The topic is assessed against the above listed criteria and is ranked on a scale of 1 to 5, with '1' being insignificant and '5' being highly significant. The ranking is further expressed as either a positive (+), negative (-) or neutral (n) outcome. The findings in section 4 of this report indicate that none of the primary or secondary criteria will result in scores of '4' or above. The topic is essentially confined to the immediate Te Kowhai locality and will not result in District wide environmental change. For the reasons listed in section 4 of this report, the topic is not considered to be significant.

### **1.3 Resource Management Issue(s) to be Addressed**

#### **1. Operation and development of aviation and aviation-related activities**

To date, the Operative Waikato District Plan (ODP) has not provided for airparks as a permitted activity, whereby aviation and aviation-related activities can co-exist with residential activity. Pressure to accommodate this will increase because New Zealand is one of the most aviation-oriented nations in the world, having a high ratio of pilots and aircraft to population, compared to other countries. Expected growth in the aviation sector will increase the popularity of aircraft ownership and increase demand for accessible facilities. If provision is not made for that demand, the aviation sector cannot thrive within Waikato District.

Te Kowhai aerodrome is physically suitable for airpark development, relative to the limited alternative options elsewhere. A runway and associated airside facilities (such as hangars and refuelling facilities) are pre-requisites for multi-lot airparks and these facilities are already well established on the Te Kowhai site. Further, the Te Kowhai airfield already has recognition within the ODP with respect to airspace protection and an air noise boundary. Therefore, the association of the airfield with the neighbouring community is to some extent already well established. Although there are alternative airfields at Kelly Field, Mercer and Limestone Downs, none of them is strategically located close to major urban centres or in proximity to a state highway network. As such, it is debateable the extent to which any other airfield site within Waikato District could satisfy airpark requirements as well as Te Kowhai.

#### **2. Safeguarding the operation of the airpark and management of reverse sensitivity issue**

The sustainability of the airpark is dependent upon its ability to safeguard existing activities as well as the ability to respond to the evolving needs of the aviation community. Mechanisms such as the ANB and the Te Kowhai Airpark Noise Buffer are potentially effective controls to safeguard on-site activity and avoid reverse sensitivity risk. The Te Kowhai aviation community has also signalled a desire to future proof the aerodrome in order that aircraft can operate under both VFR and IFR conditions. IFR compliance will necessitate a change to the existing OLS to meet Civil Aviation Authority requirements with respect to Circular AC139-7 Aerodrome Standards and Requirements. Sustainability of the aerodrome is also dependent upon a degree of commercial flexibility to generate income needed for airfield maintenance and development. Currently, there is no such flexibility in the ODP.

Airparks need to be carefully managed to ensure an appropriate level of functionality without undue effect on amenity. Controls such as the ANB and the (VFR) OLS are already in place to safeguard aviation activity at Te Kowhai aerodrome. However,

development of the site for airpark purposes presents unique challenges with respect to managing the interface between residential and commercial precincts, whilst at the same time providing for the taxiing of aircraft throughout the site. Site-specific controls will need to be developed to manage that unique environment.

### **3. Absence of reticulated water, wastewater and stormwater**

There are currently no reticulated Council services available within Te Kowhai village. Therefore, Te Kowhai airpark will be reliant upon a site-designed private reticulated network, which will be needed to service lots below 2,500m<sup>2</sup> in area. Strong growth is anticipated within Te Kowhai village and, when critical mass is achieved, it will facilitate the development of Council reticulated services. Te Kowhai aerodrome is a scarce physical resource. To make efficient and sustainable use of that resource, it is important that the aerodrome retains flexibility to connect to Council services, as and when these become available to the wider community.

## **1.4 Current Objectives, Policies, Rules and Methods**

The Operative Waikato District Plan (ODP) promotes the sustainable management of natural and physical resources through the strategic management of growth and by managing the effects of the land use on the environment. Although a combination of rules, regulatory and non-regulatory methods are used to give effect to the Plan's policy framework, the ODP contains no objectives, rules or other methods that are specifically applicable to airparks.

Notwithstanding that, the ODP provides for recognition of aircraft activity by way of an ANB and an OLS. There are no proposed changes to the ANB, which is able to be carried over into the new Proposed District Plan provisions. However, the current OLS is designed to satisfy VFR requirements whereas Te Kowhai Aerodrome is seeking to future proof the facility to enable IFR activities also. Accommodation of IFR will necessitate a change to the OLS profile, as described in the supporting documentation to this report. The current OLS provision is also considered deficient because, notwithstanding its VFR limitation, the 'height rule' used to give effect to the OLS is limited in its scope to 'buildings and structures' only. Amendment is needed to ensure that 'height rules' include reference to 'trees' as well as buildings.

## **1.5 Information and Analysis**

The 'airpark' concept is relatively new to New Zealand and there are no comparable examples of the scale proposed at Te Kowhai. Whilst there are other airfields adjoining residential development (e.g. Pauanui and Whitianga), they are not 'fully integrated' in the manner proposed by Te Kowhai.

The uniqueness of the airpark and the niche nature of the concept means that the change is unable to be supported by conventional (NZ based) market analysis. Instead, the design and operational aspects of the airpark have been guided by feedback from Te Kowhai Aerodrome which has in turn investigated overseas examples, typically from the United States.

A number of technical reports have been used to guide the proposal. These include:

- a Landscape and Visual Assessment (Boffa Miskell Consultants) – Appendix 1;
- an Integrated Transport Assessment - (Bloxam Burnett and Olliver) -Appendix 2;
- an Acoustic Assessment (Hegley Consultants) - Appendix 3;
- a Three Waters Feasibility Report (Holmes Consulting) Appendix 4;
- a Wastewater Recommending Report (Holmes Consulting) - Appendix 5;
- an Aviation Assessment (Astral Consultants) – Appendix 6; and
- a Civil Aviation Authority of New Zealand - Advisory Circular AC 139-10 - Appendix 17.

These reports are appended to this s32 report.

## 1.6 Consultation Undertaken

Waikato District Council planners, along with Te Kowhai Aerodrome, have undertaken specific stakeholder consultation to support the Airpark proposal. A summary of the consultation is provided in the table below.

Date	Group	Subject Matter	Feedback
8/5/17 onwards	New Zealand Transport Agency	Transportation issues.	Detailed feedback from NZTA has been incorporated into the finalised Integrated Transport Assessment.
21/4/17	Waikato Regional Council	Concept masterplan and principle of airpark development	No feedback from WRC has been received to date.
7/6/17	Waikeri Marae	Concept masterplan and principle of airpark development	Waikeri Marae has been consulted as part of wider Tainui consultation. No concerns have been raised to date.
28/4/17 11/8/17 4/9/17 8/2/18	Waikato Tainui	Concept masterplan and principle of airpark development  Environmental Impacts  Cultural Impacts	No cultural or environmental concerns have been raised to date. It was recommended that opportunity be taken to explore 'place making / story telling' as part of the airpark's detailed design. Te Kowhai Aerodrome (TKA) has welcomed that feedback and is exploring these concepts further.
7/7/17	Te Papaorotu Marae	Concept masterplan and principle of airpark development	Te Papaorotu Marae has been consulted as part of wider Tainui consultation. No concerns have been raised to date.
21/4/17	Maui Development Ltd	Concept masterplan and principle of airpark development	No feedback has been received from Maui Development Ltd to date. However, the airpark development concept has been

			designed to accommodate existing gas easements.
21/4/17 30/5/17	Hamilton City Council	Concept masterplan and principle of airpark development  A follow-up meeting was held at HCC with Susan Henderson.	HCC recommended follow-up consultation with Futureproof, including the lodgement of a submission for the upcoming FutureProof review.  HCC is uncommitted in terms of concept support but has encouraged greater linkage with Te Kowhai village. TKA is supportive of improved linkage with Te Kowhai village.
21/4/17	FutureProof	Concept masterplan and principle of airpark development	No written response was received from FutureProof (FP). However, FutureProof encouraged a submission to the draft FutureProof 2017 Strategy with the airpark concept subsequently presented at FP hearing. FP declined to amend the Te Kowhai urban limit boundary and recommended instead that WDC prepare a structure plan for Te Kowhai.
21/4/17	First Gas Ltd	Concept masterplan and principle of airpark development	No feedback has been received from First Gas Ltd to date. However, the airpark development concept has been designed to accommodate existing gas easements.
21/4/17  1/2/18	Civil Aviation Authority	Concept masterplan and principle of airpark development  Changes to OLS	No feedback provided on the masterplan concept. However, CAA subsequently provided data with respect to aircraft ownership and pilot licensing.  CAA was re-consulted on February 2018 in connection with proposed changes to the OLS. Dialogue is continuing with CAA though no concerns have been registered to date.
26/7/17	Waikato DC - Councillor workshop	Workshop on masterplan concept.	The Councillor workshop expressed support in principle for the project.
5/12/17	Public Open Day	Concept plans and project staff were made available at Te Kowhai's public open day, as part of the wider District Plan review.	One landowner raised concern because they were unaware that they were affected by the current OLS. Any changes to the OLS would need to be signalled to potentially affected landowners. That consultation has subsequently



			been implemented by TKA.
22/2/18	<p>Landowners affected by changes to the Obstacle Limitation Surface (OLS)</p> <p>Letter drop to all potentially affected landowners.</p>	<p>Consultation material focussed on the extension of the OLS to accommodate IFR capabilities. It also included discussion on the consequences and responsibilities for landowners.</p>	<p>TKA pursued follow-up consultation and meetings with landowners on northern runway boundary ('Sam', 'Stead' and 'Davis' properties) to discuss OLS consequences. Cross sections were developed to illustrate effects of the transitional surface OLS and setback impacts. The plans demonstrated limited impact on the development potential of 'Deferred Village Zone' properties.</p> <p>TKA is on ongoing consultation regarding OLS implications for the Metcalfe property on the western approach. TKA has undertaken additional tree survey work to assist in those understandings. Discussions are ongoing.</p> <p>TKA has pursued follow-up consultation with multiple landowners on Horotiu Road and beyond. An objection to the OLS proposal was received from one landowner on the eastern approach (Ranby). TKA is seeking follow up consultation with the Ranby family.</p>
Various from 2017 onwards	Landowners adjoining airpark	<p>Consideration of alternative access options, including linkage with Te Kowhai village</p> <p>Options for noise mitigation</p> <p>Options for shared taxiway</p>	<p>TKA has had meetings with 'Sam' and 'Stead' properties to discuss alternative access arrangements and potential linkages with Te Kowhai village. Those discussions are ongoing.</p> <p>A number of landowners were keen to secure access from their properties directly onto the aerodrome taxiway. This has now been accommodated in the draft zone provisions.</p> <p>A number of landowners adjoining the airpark have provided noise dispensations with respect to aircraft noise from the perimeter taxiway.</p>
14/05/18	Te Kowhai Community Group	Principle of airpark development, including proposed change to OLS.	General understanding of the aerodrome's need to future proof the facility in the interests of sustainability. Queries raised

			concerning aircraft movements and effects of the proposed OLS on the Woolrich Road area. Analysis subsequently provided to member of the Community Group to demonstrate that OLS effects on Woolrich road development potential would be negligible.
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Evidence of consultation, including consultation material is attached as Appendix 7.

## 1.7 Iwi Authority Advice

### 1.7.1 Consultation

Clause 3 of Schedule 1 of the RMA set out the requirements for local authorities to consult with tangata whenua through and iwi authorities. Clause 3 also requires Local Authorities to consult with any person, group or ministry that may be affected by changes made to the District Plan.

Council used the following methods to create an Iwi Reference Group.

- Joint Management Agreement
- Tai Tumu Tai Pari Tai Ao (Waikato Tainui Environmental Plan)
- Partnerships
- Collaboration

The purpose of the Iwi Reference Group was to provide Council with a single forum to socialise the proposed changes to the Operative District Plan.

The Iwi Reference group was made up of all iwi and hapuu within the district that council currently consults with via the Resource Consent Process.

Engagement and consultation with the Iwi Reference group took place between December 2014 and December 2017. (See Part I Section 32 Report – Introduction to the Evaluation Report)

### 1.7.2 Advice

Under Clause 4A of Schedule 1 of the RMA sets out the requirements for local authorities to consult with iwi authorities before notifying a proposed plan. Clause 4A(1)(b) requires Council to have particular regard to any advice received on a draft proposed policy statement or plan from those iwi authorities.

Council held discussions with the relevant Iwi and Hapuu and through Te Kahui Mangai website:

Iwi authorities within Waikato District:

- Waikato Tainui
- Ngaati Tamaoho

Iwi for the purpose of RMA list on Te Kahui Mangai

- Tainui o Tainui

Iwi that have relationship from other districts

- Hauraki
- Ngaati Maniapoto
- Ngaati Paoa - Hauraki

The above Iwi groups were consulted with and a summary of their comments issues and Council's consideration are listed in Part I Section 32 Report – Introduction to the Evaluation Report.

This section sets out advice received from those iwi authorities relevant to Te Kowhai Airpark and consideration of that advice.

Consultation with Waikato Tainui ('Tainui') commenced in April 2017. Tainui requested an evaluation of the proposal relative to the assessment criteria of the Waikato Tainui Environmental Plan. An assessment by Bloxam Burnett and Olliver on behalf of Te Kowhai Aerodrome showed the proposal to be consistent with the intent of the Environmental Plan.

Tainui also recommended consultation with Te Papaorotu Marae and Waikeri Marae and this was completed through an intermediary (Norm Hill - Boffa Miskell) who was mandated to consult on Tainui's behalf. No objections were raised by either Marae. Waikato Tainui does not oppose the proposed airpark but recommended that TKA give consideration to the following:

- Indigenous place making throughout the airpark development.
- The adoption of accidental discovery protocols for large scale earthworks.
- Employment for tangata whenua in the event of airpark job opportunities.
- The adoption of best practice for earthworks and stormwater disposal.
- Promoting the use of native plant vegetation sourced from local nurseries.
- Development of a rule schedule which promoted good environmental outcomes.
- On-going consultation with mana whenua to ensure that appropriate outcomes are achieved.

TKA has taken on board the recommendations of Waikato Tainui and a proposed rule schedule has been developed to ensure good environmental outcomes within the Te Kowhai Airpark Zone. TKA supports the concept of indigenous place making and these suggestions will be explored further when the project progresses to a detailed design stage. Consultation with Waikato Tainui is expected to be ongoing in the meantime.

## 1.8 Decision-making

The Te Kowhai airpark concept was first raised in the late 1990s / early 2000's by the then owner, Mr. Max Clear. Mr Clear presented the concept to Council staff over a number of meetings, and eventually a Council workshop. Councillors

supported the principle of the airpark concept, providing Mr Clear facilitated a Variation to the (then) Proposed District Plan. A combination of property dispute and illness prevented the variation from proceeding and Mr Clear subsequently passed away.

Te Kowhai aerodrome changed hands in 2016/2017 and is now in multiple ownership. The new aerodrome owners again approached Council in 2017 over the airpark concept and the need for site rezoning. A Council workshop was held on 26 July 2017 where the principle of the airpark was again endorsed by Councillors. Council resolved to include the Te Kowhai airpark proposal as part of the Waikato District Plan review. Supporting documentation and s32 analysis was to be provided by the airpark owners.

## **1.9 Reference to Other Relevant Evaluations**

This s32 topic report should be read in conjunction with the following evaluations:

- Rural Zone s32 report (with regards to maximum height rules and OLS / Te Kowhai Noise Buffer)
- Village Zone s32 report (with regards to maximum height rules and OLS)

## **2 ISSUES, OBJECTIVES, POLICIES AND RULES**

### **2.1 Higher Level Planning Documents and Legislation**

A District Plan prepared by a territorial authority must “give effect to” any operative Regional Policy Statement. The Waikato Regional Policy Statement (WRPS) became operative on 20 May 2016 and is the relevant regional policy statement in the context of this Plan review.

Because the concept is new to the Waikato region, the WRPS is silent on the issue of airparks. The WRPS nonetheless contains guiding principles, objectives and policies that have been taken on board by designers of the proposed airpark. Relevant subject matters include:

- The built environment
- Amenity
- Values of soil
- Planned and coordinated development
- Coordinating growth and infrastructure
- Adopting FutureProof land use patterns
- Maintaining or enhancing the values of the soil resource

Objective 3.12 and Policies 6.1 and 6.3 of the WRPS seek to adopt an integrated approach to land use and infrastructure planning, the intent being that it promotes positive environmental, social, cultural and economic outcomes. The proposed airpark is informed by supporting technical assessments relating to transport, the

availability of essential services, infrastructure, noise and landscape. Collectively, the documentation demonstrates an integrated approach to development in the manner envisaged by the WRPS.

Policy 6.14 of the WRPS relates to the issue of Urban Limits and the adoption of the Future Proof land use pattern when considering new urban, residential or industrial development. The Te Kowhai Urban Limit bisects the aerodrome site on a north-south axis, meaning that only the western part of the airpark is in accord with the agreed land use pattern. The urban limits are nonetheless indicative, and Council has discretion to adjust those limits as it sees fit. Notably, FutureProof provides no guidance or policy direction specifically on airparks.

Objective 3.21 of the WRPS and its associated policies relate to amenity. The district and regional policy documents generally seek to maintain or enhance amenity. The Airpark proposal gives consideration to a number of matters which contribute toward amenity, including visual and landscape effects, noise and traffic issues. Where mitigation is necessary, performance standards, assessment criteria and other methods will be developed to address the relevant issues and to ensure the maintenance of amenity values.

Consideration has also been had to the potential for land use conflicts, including reverse sensitivity effects. Performance standards have been developed to manage the interface between airpark activities and adjoining rural properties through measures such as setbacks, an airpark noise buffer and restricted noise levels.

Objective 3.25 and Policy 14.1 relate to the values of the soil resource. The general approach is to safeguard the life supporting capacity of the soil resource by minimising sedimentation and erosion, maintaining or enhancing biological, chemical and physical soil properties and retaining soil versatility for a range of uses. The Airpark proposal incorporates rules which classify large scale earthworks as a discretionary activity which is the same approach adopted elsewhere in the District. The resource consent process will enable consideration to be given to a wide range of matters, including loss of soil versatility. The proposal will result in some impacts on the soil resource because it will enable the development of airpark facilities, including residential accommodation in areas historically set aside for productive purposes. However, the uniqueness of the facility and the need for hangar accommodation to locate close to airfields means that a degree of soil loss is unavoidable (i.e. airparks cannot be located within conventional urban or residential areas).

In summary, the proposal is in general accord with the WRPS, but in partial conflict with respect to 'FutureProof land pattern' and 'soil resource'.

None of the National Policy Statements are considered of relevance to this proposal. However, in the event that the Airpark concept is adopted and implemented, the National Environmental Standard for Assessing and Managing Contaminants to Protect Human Health ('NES Soil') will come into consideration as and when the aerodrome site is eventually developed.

## 2.2 Issues

The evaluation of objectives and provisions in the following sections relate to the resource management issue stated below:

### 2.2.1 Issue 1

<b>Issue statement 1</b>	<p><b>Airpark Provision:</b></p> <p>District Plan provisions to date have not provided for the establishment of residential based airparks, or the sustainable growth of complimentary airpark-related activities. Expected growth in the aviation sector will increase the popularity of aircraft ownership and increase demand for accessible facilities. If provision is not made for that demand, the aviation sector cannot thrive within Waikato District.</p>
<p>The ODP does not provide for airparks whereby aviation and aviation-related activities can co-exist with residential activity. The issue statement is an important resource management consideration because airfields are a scarce resource which cannot be easily replicated elsewhere in the District. The inability to accommodate airpark or aviation-related activity 'by right' disadvantages the aviation sector who have little choice but to locate these activities adjacent to existing airfields. Without the certainty provided by this proposal, the aviation community would be unable to provide for its social, economic and cultural wellbeing and the District Plan would fail to meet the foreseeable needs of future generations.</p>	

### 2.2.2 Issue 2

<b>Issue statement 2</b>	<p><b>Aerodrome Suitability</b></p> <p>Te Kowhai aerodrome is physically suitable for airpark development, relative to the limited alternative options elsewhere in Waikato District. A runway and associated airside facilities (such as hangars and refuelling facilities) are pre-requisites for multi-lot airparks and these facilities are already well established on the Te Kowhai site. Although there are alternative airfields at Kelly Field, Mercer and Limestone Downs, none of them is strategically located close to major urban centres or in proximity to a state highway network. As such, it is debateable the extent to which any other airfield site within Waikato District could satisfy airpark requirements as well as this one.</p>
<p>This issue statement is an important resource management consideration for Council because airfields are a scarce resource which cannot be easily replicated elsewhere in the District. The inability to accommodate airpark or aviation-related activity 'by right' disadvantages the aviation sector who have little choice but to locate these activities adjacent to existing airfields. Without the certainty provided by these Plan provisions, the aviation community would be unable to provide for its social, economic and cultural wellbeing and the District Plan would fails to meet the foreseeable needs of future generations.</p>	

### 2.2.3 Issue 3

<b>Issue statement 3</b>	<p><b>Airpark Sustainability:</b></p> <p>The sustainability of an airpark is dependent upon its ability to safeguard existing activities as well as the ability to respond to the evolving needs of the aviation sector. The Te Kowhai aviation community has signalled a desire to future proof Te Kowhai aerodrome in order that aircraft can operate under both VFR and IFR conditions. The protection of airspace is both a safety and a sustainability issue for aerodromes. Sustainability of the aerodrome is also dependent upon a degree of commercial flexibility in order to generate income needed for airfield maintenance and development.</p>
<p>This issue statement is an important resource management consideration because it relates to the sustainable management of a physical resource, being the Te Kowhai aerodrome. Management of airparks can be complex because of the operating environment and because of the potential for on-site activity to result in off-site effects. The sustainability of the resource is dependent upon its ability to meet the operational needs of the aviation community (e.g. through the protection of airspace), whilst at the same time maintaining reasonable levels of amenity both for on-site residents and nearby landowners. These and other considerations are addressed in the Summary Assessment of Environmental Effects which is attached as Appendix I3.</p>	

### 2.2.4 Issue 4

<b>Issue statement 4</b>	<p><b>Complexities of airpark management:</b></p> <p>Airparks are distinct environments which need to be carefully managed to ensure an appropriate level of functionality without undue effect on neighbouring amenity.</p>
<p>This issue statement is an important resource management consideration because it relates to the sustainable management of a physical resource, being Te Kowhai aerodrome. Management of airparks can be complex because of the unique operating environment and the potential for on-site activity to result in off-site effects. Airparks present a challenge with respect to managing the interface between residential and commercial precincts, whilst at the same time providing for the taxiing of aircraft throughout the site. Site-specific controls are needed to manage that unique environment. Ultimately, the sustainability of the resource is dependent upon its ability to meet the operational needs of the aviation community, whilst at the same time maintaining reasonable levels of amenity both for on-site residents and nearby landowners. These and other considerations are addressed in the Summary Assessment of Environmental Effects which is attached as Appendix I3.</p>	

## 3 EVALUATION OF OBJECTIVES

The objectives that are the most appropriate to address these issues and to achieve the purpose of the Resource Management Act 1991 are listed in the table below. The table includes an evaluation as required by section 32(1)(a) of the Act.

Objectives	Evaluation
<p>9.2.1 - To use and develop Te Kowhai Aerodrome as a strategically significant, safe and economically sustainable airpark that meets the current and future needs of the aviation community.</p>	<ul style="list-style-type: none"> <li>- This objective is most appropriate to achieve the purpose of the Act because it promotes a sustainable development of a key District facility, providing for the social, economic and cultural wellbeing (section 5 of the Act) of the aviation sector.</li> <li>- The objective is also consistent with section 7(b) of the Resource Management Act because it promotes the sustainable use a specialist and relatively scarce District facility, which gives regard to the efficient use and development of resources.</li> </ul>
<p>9.2.2 - The adverse effects of airpark activities are managed to ensure acceptable amenity outcomes.</p>	<ul style="list-style-type: none"> <li>- This objective is most appropriate to achieve the purpose of the Act because it encourages the sustainable management of resources to ensure acceptable amenity outcomes.</li> <li>- The successful management of adverse effects leads to the maintenance of amenity values in the manner envisaged by section 7(c) of the Resource Management Act.</li> <li>- By maintaining or enhancing environmental quality, it enables people and communities to provide for their social and cultural wellbeing and for their health and safety (Section 5 of the Act). It also directly supports section 5(2)(c) of the Act which seeks to avoid, remedy or mitigate adverse effects of activities on the environment.</li> </ul>

## 4 SCALE AND SIGNIFICANCE EVALUATION

The level of detail undertaken for the evaluation of the Proposed District Plan provisions has been determined by an assessment of the scale and significance of the implementation of the Proposed District Plan provisions. The scale and significance



assessment considered the environmental, economic, social and cultural effects of the provisions. In making this assessment regard has been had to the following:

- Regional or District-wide significance;
- Whether matters are of national importance under section 6 of the RMA;
- Impacts on people's health and safety;
- Degree of shift from the status quo;
- Extent of potentially affected stakeholders;
- Degree of impact on Maori / iwi;
- Geographic scale of impacts; and
- Type of effect.

The topic is assessed against the above listed criteria and is ranked on a scale of 1 to 5, with '1' being insignificant and '5' being highly significant. The ranking is further expressed as either a positive (+), negative (-) or neutral (n) outcome. The findings indicate that none of the primary or secondary criteria will result in scores of '4' or above. The topic is essentially confined to the immediate Te Kowhai locality and will not result in District-wide environmental change. For the reasons listed in the table below, the topic is not considered to be significant.

Primary Criteria	Secondary Criteria	Comments	Ranking
Degree of shift from the status quo	Addressing existing or new resource management issues.	<p>The aerodrome already exists, as does a level of on-site aviation-related activity (e.g. hangars). Aircraft movements at the aerodrome are currently unrestricted and controlled only by the Air Noise Boundary. Although the residential component of the airpark will be new, the concept has been muted over a number of years (10+), most notably by the previous landowner. The airpark concept does not require change to the existing air noise boundary. Nor does it require extension of the existing runway.</p> <p>Airspace protection is an existing aerodrome issue, as evidenced by the current OLS. The proposed change to the OLS has the potential to affect additional landowners to a radius of 2500m from the centreline and ends of the runway.</p> <p>Although no existing structures or buildings are considered to be affected by the OLS change, a number of landowners may have compliance issues due to trees projecting into the proposed OLS. Boundary setbacks caused by the OLS change also have the potential to affect a small number of</p>	3 (-)

		landowners immediately adjacent to the runway. The setbacks are relevant in the context of future development potential, though studies to date indicate that the OLS impacts would be minimal.	
	New management regime or minor change to existing framework	A stand-alone regime is proposed to manage activities within the Te Kowhai Airpark Special Activities Zone. The new regime is site-specific and adopts a policy / rule methodology which is already an adopted methodology in the Plan.	2 (n)
	Discrete provisions or broader suits of existing provisions	The airpark will be managed through a combination of discreet, site-specific provisions, and District wide provisions where relevant.	2 (n)
	Changes to existing objectives and policy framework	The site-specific nature of the Special Activities Zone means that the Plan's objectives and policy framework is untouched. A new stand-alone framework will be developed for the airpark.	2 (n)
Extent of potentially affected stakeholders	Degree of public interest	Public interest in the proposal will generally be limited to the aviation community and to the landowners perceived to be affected by the change in OLS.	3 (-)
	Degree of impact on private property	<p>A small number of immediately adjoining properties will potentially be impacted by aircraft taxiing around the perimeter of the airpark. However, some of these landowners have indicated this to be a positive, rather than a negative effect, due to the potential for shared runway access.</p> <p>Not all properties which lie below the OLS footprint are materially impacted by the proposed change, and the change itself does not affect any existing buildings or structures. Some property owners will be impacted by the need for tree management, and a small number of landowners will need to factor increased setbacks (caused by the OLS) into future development plans.</p>	2 (-)
	Extent to which proposal addresses identified community outcomes	The proposal will give effect to a concept which has been muted for a number of years, and which is seen to address the concerns of the aviation community. The proposal is also aligned with the Te Kowhai Community Plan 2011-2021 (Appendix 14)	3 (+)

		which specifically states that <i>“Te Kowhai airport need(s) to be supported and encouraged to grow”</i> .	
Degree of impact on Maori / Iwi	Likely degree of impact on iwi / Maori	Waikato Tainui have been party to preliminary discussions with TKA. There are no negative impacts on iwi or Maori in general.	1 (n)
	Impact on sites of significance	The site does not contain any sites of significance, as confirmed by Waikato Tainui	1 (n)
	Degree of consistency with management plans	The proposal has been assessed against and is found to be consistent with the Waikato Tainui Environmental Plan.	1 (n)
Geographic scale of impacts	Localised or wide ranging.	Impacts resulting from the airpark proposal are localised to the Te Kowhai community and the immediate airpark environs. Changes to the OLS affect a discreet number of additional landowners above and beyond those already affected by the existing OLS. Although the proposed OLS footprint extends over a 2,500m radius from the centreline and ends of the runway, only a few properties within the footprint are materially affected by its consequences	2 (-)
Type of effect	Acute / chronic / temporary / cumulative / positive / negative	<p>Aircraft-related effects are already long established in the locality. Regardless of whether aircraft movements increase as a result of the proposal, they will still be managed by the existing air noise boundary, which is to remain unchanged.</p> <p>There will be visual effects due to the development of the airpark, and those effects will be particularly notable for adjacent or nearby properties. Although the landscape is neither significant nor protected, the airpark concept provides for mitigation planting around the perimeter of the site.</p> <p>Traffic effects are considered to be within the capacity of the localised network, albeit that improvements will be needed to the intersection with SH39.</p> <p>Creation of the airpark and increased protection of airspace will result in</p>	3 (+/-)

		pronounced benefits to the aviation sector.  Overall, there are considered to be no acute or chronic effects.	
	Degree of impact on social and cultural wellbeing	Impacts on social and cultural wellbeing are generally considered to be of a positive nature because the proposal will meet the niche requirements of the aviation sector. Development of the airpark also has the potential to result in improved economic wellbeing for the wider Te Kowha community. Social wellbeing of the wider community is protected by the existing ANB, which is unchanged.	2 (+)
	Degree of impact (positive / negative) on Part 2 matters.	There are localised adverse effects on visual amenity for some, but not all landowners. Generally, however, there are no matters in Part 2 which are considered to be significantly adversely affected.	2(-)

## 5 EVALUATION OF PROPOSED POLICIES, RULES AND METHODS

Section 32 (1)(b) requires an evaluation of whether the provisions are the most appropriate way to achieve the objectives by identifying other reasonably practicable options, assessing the efficiency and effectiveness of the provisions in achieving the objectives, and summarising the reasons for deciding on the provisions. The assessment must identify and assess the benefits and costs of environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions, including opportunities for economic growth and employment. The assessment must if practicable, quantify the benefits and costs and assess the risk of acting or not acting if there is uncertain or insufficient information available about the subject matter.

### 5.1 Identification of Reasonably Practicable Options – for Achieving Objectives

The following assessment consists of an examination of all reasonably practicable options for achieving Objectives 9.2.1 and 9.2.2. This high-level screening process considers the effectiveness of each option. Only those options considered to be reasonably practicable will be evaluated in this section.

<b>Objective 9.2.1</b>	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.				
<b>Options</b> Approach to achieve objective(s)	<b>Description (brief)</b> Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	<b>Relevance</b> How effective provisions are in achieving the objective(s).	<b>Feasibility</b> Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	<b>Acceptability</b> Level of equity and fair distribution of impacts, level of community acceptance.  Where possible identify at a broad level social, economic, environmental, cultural effects.	<b>Recommendation</b> Discard or evaluate further (with brief explanation).
Do nothing – (remove all policies and associated methods)	Do nothing equates to removal of regulatory controls and letting the market decide the issue.	<p>The do nothing option has the potential to achieve Objective 9.2.1 insofar as the aviation community will be able to meet the needs of current and future generations. Although this option would potentially assist in optimising the aerodrome's social and economic potential, it would likely be at a high environmental cost and is unlikely to be sustainable.</p> <p>It also does not provide the means to address any of the resultant effects (both adverse and positive).</p> <p>The removal of all</p>	<p>There is a high level of risk associated with this option because of the inevitable environmental cost and wider social impacts.</p> <p>Without rules, there would be no ability to monitor and enforce the remediation of adverse effects.</p> <p>Council has a responsibility for the sustainable management of resources, including the subdivision of land. The option would result in uncontrolled subdivision which is unsustainable in terms of resource use.</p> <p>The option does not provide any assurances</p>	<p>- A laissez faire approach has the potential for significant environmental cost due to the unsustainable use of resources.</p> <p>- The aviation community will be able to meet the needs of current and future generations without being hindered by wider environmental considerations.</p> <p>- There are potentially cost savings if development is not required to remedy or mitigate adverse environmental effects or to undergo subdivision consents.</p>	<p><b>Discard</b></p> <p>This option is discarded because it has a high level of environmental risk and is contrary to Council's established RMA approach for the management of resources within the District. The option will not ensure acceptable amenity outcomes and is therefore unlikely to be acceptable from the wider community.</p>

		<p>policies and methods would result in an uncontrolled, laissez faire approach to subdivision. By default therefore, the option would potentially enable subdivision within the Te Kowhai Airpark Zone.</p> <p>On balance, the option is unlikely to be fully effective with regards to Objective 9.2.1.</p>	<p>with regards acceptable subdivision outcomes and is therefore considered unfeasible.</p>	<p>- A lack of regulatory control has the potential to disadvantage some user groups and stakeholders, whose needs and concerns would not necessarily be taken into account.</p> <p>- There are no identifiable cultural costs.</p> <p>- Potential reverse sensitivity effects may arise.</p>	
<p>Status quo – (retain existing policy framework and rely upon resource consents)</p>	<p>This approach would rely upon the ongoing use of the existing objective, policy and rule framework for the Rural Zone. That framework seeks to manage the location, density, scale and intensity of subdivision and development in the Rural Zone in order to manage growth and ensure the sustainability of rural resources. And, although that includes rules to control the environmental and community health effects of activities such as Te</p>	<p>Retaining the status quo would only be moderately effective at achieving the objective because the existing policy / rule framework does not provide for the development of aviation activity, commercial activity or the subdivision of airparks. Almost all forms of development will trigger an RMA consent requirement, and the uncertainty associated with that process would not necessarily meet the needs of the aviation community or enable realisation of the</p>	<p>Retaining the status quo is feasible insofar as the management of the aerodrome is already subject to existing objectives, policies and rules. However, almost all forms of development will trigger an RMA consent requirement, and the uncertainty associated with that process would not safeguard the needs of the aviation community or enable realisation of the aerodrome's long term social and economic potential. Although reliance upon resource consents is within Council's powers</p>	<p>The status quo is potentially acceptable to neighbouring landowners but is unlikely to be acceptable to the aviation community, who are the drivers for change.</p> <p>Although under this option environmental effects can be considered on a case by case basis, the policy framework against which applications are judged are a mismatch in terms of on-site activity.</p> <p>There is a social cost with this option insofar as the needs of the aviation</p>	<p><b>Retain for Further Evaluation</b></p> <p>This option is retained for further evaluation because the methodology has managed the airfield to date, albeit in a piecemeal and only partially successful manner.</p>

	<p>Kowhai Airfield, the methods are otherwise focussed on traditional rural issues, rather than the needs of the aviation sector.</p> <p>Consequently, the existing policy / rule framework triggers an RMA consent requirement for almost all forms of aviation-related development.</p>	<p>aerodrome's long term social and economic potential.</p> <p>The ad hoc nature of resource consents means that objectives would typically be achieved in a piecemeal manner, if at all. As the existing Plan provisions do not support subdivision, the status quo would be ineffective at meeting the objective.</p>	<p>and responsibilities, the process has a high level of uncertainty which has the potential to undermine investor confidence in the aerodrome</p> <p>The status quo would enable monitoring and enforcement, but within a framework which is geared towards rural, rather than aviation activities.</p>	<p>sector would not necessarily be met. The aviation sector would also be unable to meet their specialist housing needs, which are predicated on access to a runway and the ability to hangar aircraft.</p> <p>This option also has an economic cost because commercial operators which rely upon existing use rights are unable to expand these operations 'by right' thereby preventing those operators from maximising commercial potential and undermining the economic sustainability of the airfield.</p> <p>Reliance upon resource consents will impose an economic cost on aerodrome investors and provides no certainty that the current and future needs of the aviation community will be met.</p>	
Option I – Rezone	This option would involve	This is a potentially	This option is feasible	This option would have a	<b>Retain for further</b>

<p>the aerodrome site (to Airpark or equivalent) as part of the Waikato District Plan review</p>	<p>rezoning of the aerodrome site for airpark purposes as part of the wider District Plan review.</p>	<p>effective option because known issues are able to be addressed comprehensively in an integrated manner.</p> <p>The option allows for the development of a policy rule framework which provides for the unique requirements of an airpark, including the subdivision of land.</p> <p>Any such framework could allow for the optimisation of the aerodrome's long-term potential and, with appropriate levels of flexibility, could promote an economically sustainable aerodrome which is responsive to the needs of the aviation sector.</p>	<p>because Council has already embarked upon a District Plan review, including the consideration of future needs in the Te Kowhai community.</p> <p>The review is within Council's powers and is a requirement under the RMA.</p> <p>There is an element of risk associated with any Plan change or Plan review process, and those risks include the potential for referral to the Environment Court.</p> <p>There is a reasonable level of certainty that this option could achieve a policy / rule framework which supports the objective. There are no known monitoring or enforcement uncertainties associated with this option.</p>	<p>high level of equity because the District Plan review is an inclusive process which provides opportunity for community input and submissions. Both the aviation community and opponents of the aviation sector would have opportunity to shape environmental outcomes.</p> <p>The option has an economic effect because changes to the District Plan are costly regardless of whether they are Council-led or privately initiated. If successful, however, rezoning potentially avoids application costs for activities which would otherwise trigger RMA consent requirements.</p> <p>The development of airpark-specific subdivision standards does not remove the financial costs associated with a consent process, but it does provide more certainty for developers.</p>	<p><b>evaluation</b></p> <p>This option is retained for further evaluation because it has the greatest potential to address the issues identified by the aviation community in an efficient and effective manner.</p> <p>The option is appropriate because of its potential to integrate with the review process which is already under way.</p>
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				<p>Environmentally, the option enables potentially adverse effects, including those associated with subdivision, to be considered in an holistic and comprehensive manner.</p> <p>Rezoning with appropriate subdivision standards will give developers greater confidence to invest in the airpark, than would be the case with an uncertain consent approach.</p> <p>Socially, the option enables the aviation sector to provide for its wellbeing, to a significantly greater extent than the existing zone provisions.</p> <p>This option is promoted by the airpark owners and has provisional support from Council at both a staff and a political level.</p>	
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<b>Objective 9.2.2</b>	The adverse effects of airpark activities are managed to ensure acceptable amenity outcomes				
<b>Options</b> Approach to achieve objective(s)	<b>Description (brief)</b> Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	<b>Relevance</b> How effective provisions are in achieving the objective(s).	<b>Feasibility</b> Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	<b>Acceptability</b> Level of equity and fair distribution of impacts, level of community acceptance.  Where possible identify at a broad level social, economic, environmental, cultural effects.	<b>Recommendation</b> Discard or evaluate further (with brief explanation).
Do nothing – (remove all policies and associated methods)	Do nothing equates to removal of regulatory controls and letting the market decide the issue.	The do nothing option is potentially ineffective at managing adverse effects because there would be no requirement upon developers to do so. Therefore, this option does not support Objective 9.2.2.	There is a high level of risk associated with this option because of the potential environmental cost and wider social impacts.  Without rules, there would be no ability to monitor and enforce the remediation of adverse effects. The option provides no assurance of acceptable amenity outcomes.	Under this scenario, the aviation community will be able to meet the needs of current and future generations without being hindered by wider environmental considerations. However, a laissez faire approach has the potential for significant environmental cost and the unsustainable use of resources.  There are potentially cost savings if developers are not required to remedy or mitigate adverse environmental effects. However, a lack of regulatory control has	<b>Discard</b>  This option is discarded because of the high level of environmental risk and because it is contrary to Council's established RMA approach for the management of resources within the District. The option will not ensure acceptable amenity outcomes and is therefore unlikely to be acceptable to the wider community.

				the potential to disadvantage some user groups and stakeholders, whose needs and concerns would not necessarily be taken into account.	
Status quo – (retain existing policies and rely upon resource consents)	This approach would rely upon the ongoing use of the existing objective, policy and rule framework for the Rural Zone. That framework seeks to manage the location, density, scale and intensity of development as a means of managing environmental outcomes. The Plan identifies 'permitted' thresholds of development whose environmental effects are considered appropriate for the Rural Zone. Beyond those thresholds, consent requirements are triggered.	Retaining the status quo would be moderately effective at achieving Objective 9.2.2, insofar as the Rural Zone provisions already have a number of policies and rules to manage adverse effects. Although consent applications would have to evaluate and either avoid, remedy or mitigate adverse effects, the ad hoc nature of the consents approach means that the management of adverse effects is typically achieved in a piecemeal manner. At best, this option has a medium level of certainty in terms of its effectiveness.	Retaining the status quo is feasible insofar as the management of the aerodrome is already subject to existing objectives, policies and rules, some of which address adverse effects, including aviation-related effects (such as noise and obstacle limitations). The status quo would enable monitoring and enforcement, but within a framework which is primarily geared towards rural, rather than aviation activities.  The status quo (and thus a consent approach) provides limited confidence to developers in terms of establishing acceptable development parameters.	The status quo is potentially acceptable to neighbouring landowners but is unlikely to be acceptable to the aviation community, who may consider that the adverse effects can be better managed with an 'airpark-specific' suite of objectives, policies and rules. Reliance upon a consent regime imposes a financial cost on aerodrome investors and provides limited certainty that an appropriate balance can be struck between managing adverse effects and ensuring the sustainability of the airpark.	<b>Retain for Further Evaluation</b>  This option is retained for further evaluation because the methodology has managed the airfield to date, albeit in a piecemeal and only partially successful manner.

<p>Option 1</p> <p>Airpark-specific standards are developed as part of the District Plan review</p>	<p>This option would enable the development of airpark-specific standards as part of the wider District Plan review. This option is promoted by the airpark owners and has provisional support from Council at both a staff and a political level.</p>	<p>This is a potentially effective option because known issues are able to be addressed comprehensively in an integrated manner.</p> <p>The option allows for the development of a policy rule framework which provides for the unique requirements of an airpark, including the management of potentially adverse effects.</p>	<p>This option is feasible because Council has already embarked upon a District Plan review, and because the consideration of airpark needs are already part of that process.</p> <p>The review of the Plan is within Council's powers and is a requirement under the RMA.</p> <p>There is an element of risk associated with any Plan change or Plan review process, and those risks include the potential for referral to the Environment Court.</p> <p>There is a reasonable level of certainty that this option could achieve a policy / rule framework which supports Objective 9.2.2. There are no known monitoring or enforcement uncertainties associated with this option.</p>	<p>This option would have a high level of equity because the District Plan review is a consultative process which provides opportunity for community input and submissions. The aviation sector and the wider community would have opportunity to shape environmental outcomes and manage adverse effects.</p> <p>The option has an economic effect because changes to the District Plan are costly regardless of whether they are Council-led or privately initiated. The development of airpark-specific standards potentially avoids application costs for activities which would otherwise trigger RMA consent requirements.</p> <p>Environmentally, the option enables potentially adverse effects to be considered</p>	<p><b>Retain for Further Evaluation</b></p> <p>This option is evaluated further because it has the greatest potential to address the issues identified by the aviation community in an efficient and effective manner.</p> <p>The option is appropriate because of its potential to integrate with the review process which is already under way.</p>
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				<p>in an holistic and comprehensive manner.</p> <p>Site-specific standards will give developers greater confidence to invest in the airpark, than would be the case with an uncertain consent approach.</p>	
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## 5.2 Evaluation of Selected Options

This section contains a finer grained evaluation of the shortlisted options retained from above for further evaluation.

In accordance with the requirements of section 32(1)(b) of the RMA, the short list evaluation considers the whether the provisions in the proposal (i.e. the policies, rules and other methods) are the most appropriate way to achieve the objectives. It does this by identifying other reasonably practicable options for achieving the objectives and assessing the efficiency and effectiveness of the provisions in achieving the objectives.

The provisions which are being evaluated are the policies, rules and standards for the Te Kowhai airpark Zone. The provisions have been ‘bundled’ for evaluation purposes because they are expected to work together to achieve the relevant objectives.

For efficiency, this second tier evaluation focuses on the approach and the policies and rules which implement that approach as a package, rather than a detailed analysis of every policy and every rule.

The following table provides a summary of the evaluation results. The table is informed by the various appendices which are contained within Part 3.

Note that the evaluation required under this section of the Act is required to contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.

## 5.3 Objective 9.2.1

*Objective 9.2.1 - 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.*

This objective seeks to provide certainty to the current and future use and development of the Te Kowhai Aerodrome. The objective needs to be supported by related policies that provide direction on how this is to be achieved, with appropriate methods that enable aviation and aviation-related activities to locate in the Te Kowhai Airpark Zone.

The provisions to achieve the objective are:

- a) 9.2.1.1 Policy - Development
- b) 9.2.1.2 Policy - Servicing
- c) 9.2.1.3 Policy – Precinct –based development
- d) 9.2.1.4 Policy – Alignment of activities
- e) 9.2.1.5 Policy – Commercial Activity
- f) 9.2.1.6 Policy – Existing and future operations
- g) 9.2.1.7 Policy – Future Connectivity with Te Kowhai Village
- h) Te Kowhai Airpark Zone – Precincts, Permitted Activities, Activity Specific Standards and Built Form Standards

### 5.3.1 Identification of Options

In considering options for managing and enabling aviation and aviation-related land uses a number of factors were taken into account including:

- The need to recognise a significant regional aerodrome.
- The need to ensure the aerodrome will comply with Civil Aviation standards and requirements, both now and in the future.
- The need to ensure a sufficient supply of land is available for aviation and aviation-related activities.
- The diversity of aviation and aviation-related land use.

Options considered for providing for aviation and aviation-related land use included:

- A policy framework that provides clear direction on the use of the Te Kowhai Airpark versus one that stayed silent.
- A Precinct Plan (Appendix 9) that provides for and/or restricts a range of aviation activities and land uses within the zone.
- An enabling Activity Status Table that provides for aviation activities and compatible land uses as permitted activities or an Activity Status Table that requires resource consent for a range of activities.

### 5.3.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table I Evaluation of provisions

Provisions most appropriate	Effectiveness and Efficiency	
	Benefits	Costs
<p><b>a) Policies</b></p> <p>Policy 9.2.1.1(a) Facilitate development of Te Kowhai Airpark by providing for a diversity of residential and commercial opportunities which leverage off existing aerodrome infrastructure.</p> <p>Policy 9.2.1.2(a) Development is to be adequately serviced with respect to essential services, water supply, wastewater treatment and disposal and stormwater treatment and disposal.</p> <p>Policy 9.2.1.3(a) Provide a precinct based approach for the strategic development and management of Te Kowhai Aerodrome such that:</p> <p>(i) Precinct A- provides for a runway, runway strip and associated aircraft operations;</p> <p>(ii) Precinct B- provides for commercial activities which supports the airpark and the aviation sector;</p> <p>(iii) Precinct C- provides for medium</p>	<p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>- The precinct-based approach has environmental benefits by clustering compatible activities in like environments, and by avoiding commercial activities within residential areas. The airpark will also result in environmental benefits by providing a centralised place to work and live, thereby discouraging urban sprawl.</li> <li>- The safeguarding of operational needs (through OLS and noise control boundaries) is a means of futureproofing the facility to avoid long-term reverse sensitivity constraints. The policies therefore promote the sustainable use of the aerodrome to meet the needs of the current and future aviation community.</li> <li>- Promotion of the OLS and noise control buffer provides certainty for developers and landowners as to what is or is not compatible with aviation activity.</li> <li>- The safeguarding of operational needs will ensure a safer and more compliant airspace for the aviation sector.</li> <li>- Each precinct has specific rules, which</li> </ul>	<p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>- There is potentially an environmental cost due to the intensification of aircraft movements and precinct-related traffic.</li> <li>- There is a cost to Te Kowhai Airpark because additional land will be required to give effect to connectivity options with Te Kowhai Village, as identified in the Framework Plan.</li> <li>- The precinct-based approach removes developer flexibility to undertake all activities in all areas.</li> <li>- There will be some activities which are required to obtain resource consent and which are not permitted by right. This adds complexity for some developers.</li> <li>- The precinct-based approach removes the ability for more intense development in areas which are not set aside for higher density living.</li> <li>- There is a potential environmental cost resulting from the more pronounced change in character associated with a higher density precinct.</li> <li>- There is potentially an environmental cost in</li> </ul>



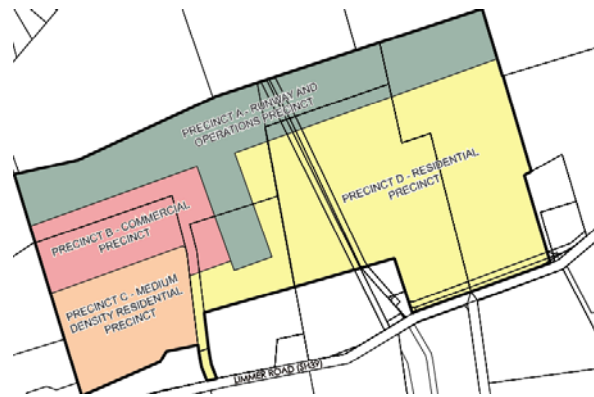
<p>density residential activities;</p> <p>(iv) Precinct D- provides for low density residential development and a transitional higher density airside overlay;</p> <p>(v) All precincts - have taxiway connectivity with the runway.</p> <p>Policy 9.2.1.4(a) On-site activities must be consistent with the precinct functions identified in the Te Kowhai Airpark Framework Plan.</p> <p>Policy 9.2.1.5(a) Provide for commercial activities that support Te Kowhai Airpark and the aviation sector, including but not limited to hangars, workshops and refuelling facilities.</p> <p>Policy 9.2.1.6(a) Te Kowhai Aerodrome's existing and future operational needs are safeguarded through mechanisms such as airspace protection (Obstacle Limitation Surface) and noise control boundaries.</p> <p>Policy 9.2.1.6(b) Buildings, structures, trees and other vegetation do not create a potential hazard to the flight paths of aircraft or any other operations associated with Te Kowhai Aerodrome.</p>	<p>provides clarity to developers and the public as to what types of development are appropriate for each precinct.</p> <ul style="list-style-type: none"> <li>- A precinct-based approach facilitates consistency of outcome by ensuring that development occurs where it is most appropriate.</li> <li>- The method will result in benefits for users of the Plan because it provides a clear expectation of what is anticipated or appropriate within each precinct.</li> <li>- The identified activities provide for a good balance and diversity within the airpark. It recognises that multiple activities have the potential to support aviation activity, even of the activities themselves are not specifically aviation related.</li> <li>- The approach identifies where intensification can occur, subject to the availability of appropriate servicing. This allows the coordination of infrastructure with intensification.</li> <li>- Provides developers with a choice of residential options, including flexibility with density.</li> <li>- Rules such as 'parking and loading', 'on site manoeuvring' and 'hazardous substances' are cross-referenced to District wide standards which are applicable to all Zones. In the context of environmental management, consistency of standards assists with consistency of outcomes.</li> <li>- There are benefits to Council and the</li> </ul>	<p>providing for temporary events.</p> <ul style="list-style-type: none"> <li>- The Airpark bulk and location provisions may constrain the maximum development potential of a site.</li> <li>- There is potentially an environmental cost if significant numbers of trees require trimming or removal as a result of the new OLS.</li> <li>- The new OLS could also prevent some landowners from reaching their optimum development potential if the OLS imposes limitations with regards height and / or setback requirements. Based upon survey information to date, however, the number of landowners potentially affected in this manner is expected to be low.</li> </ul>
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**Policy 9.2.1.7(a)**  
Provide for future connectivity between Te Kowhai Airpark and Te Kowhai village in the Te Kowhai Airpark Framework Plan.

*Note: See Appendix 8 for the Framework plan*

**b) Precincts**


The airpark has been structured to allow management on a precinct basis (Appendix 9). This includes: Precinct A (Runway and Operations), Precinct B (Commercial), Precinct C (Medium Density Residential) and Precinct D (Residential)



**c) Activity Status Table**

An activity status table has been assigned to each precinct.

- community in knowing that temporary events will be managed to minimise impacts on amenity.
- The provisions strike a workable balance between the flexibility needed to host temporary events, and the controls needed to manage associated effects.
- The provisions provide certainty for event organisers as to permitted thresholds and consent triggers.
- The Noise Buffer Overlay provides clarity for adjoining landowners as to the extent of potential aircraft noise effects. It enables developers to plan accordingly in order to meet the mitigation standards outlined in the Acoustic Assessment Report (Appendix 3, Section 3 of s32 Summary Report).
- The Noise Buffer Overlay minimises the risk of reverse sensitivity complaint against the airpark in the event of future development adjacent to the airpark’s wester, southern and eastern boundaries.
- The Noise Buffer is designed to manage noise effects, rather than prevent development.
- Rules are tailored to meet the complexities of the airpark environment, including the management of ‘height’ relative to OLS requirements.
- The rules give a clear expectation of what is anticipated or appropriate within the airpark precincts.

<p><b>d) General Standards</b></p> <p>Development of general standards for each precinct.</p> <p><b>e) Noise Standards</b></p> <p><b>f) Temporary Events Standards</b></p> <p><b>g) Noise Buffer Overlay (Appendix 10)</b></p>	<ul style="list-style-type: none"> <li>- The Airpark bulk and location provisions make allowance for the larger coverage areas needed to accommodate aircraft hangars, and to ensure adequate setback from taxiways.</li> <li>- Allowance has been made for increased setbacks from Airpark Zone boundaries in order to manage the interface between airpark and rural environments.</li> <li>- A consistent level of amenity and building potential is achieved within each precinct.</li> <li>- The 'height of structures', 'living court' and 'service court' provisions ensure an acceptable level of amenity for airpark residents.</li> <li>- The OLS builds upon existing aerodrome infrastructure, thereby avoiding the need to create a new aerodrome in a new location.</li> <li>- Facilitates the efficient and effective provision of adequate infrastructure.</li> <li>- It allows for connectivity to future Council reticulated services, if and when that becomes available.</li> <li>- Supports the achievement of a functional, attractive and well-designed environment</li> <li>- The requirement for shelterbelt planting will assist with the mitigation of visual effects and soften the interface between the airpark and neighbouring property.</li> </ul>	
	<p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>- The policies provide for economic benefits</li> </ul>	<p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>- The precinct-based approach limits some</li> </ul>
<p><b>h) Airpark- Specific Bulk and Performance Standards</b></p> <p><b>i) Obstacle Limitation Surface (New OLS) (Appendix 11)</b></p> <p><b>j) Subdivision Standards</b></p>		

	<p>to the aviation sector and potentially the wider community by providing for a diversity of residential and commercial opportunities within the airpark. The diversity supports economic sustainability of the facility.</p> <ul style="list-style-type: none"> <li>- The ability to leverage off existing aerodrome infrastructure has economic benefits because key infrastructure (runway, hangars etc) is already in place and will not need to be replicated on alternative sites.</li> <li>- The flexibility provided by the policies allows for a range of commercial activities which support the aviation sector, without necessarily needing to be aviation in nature. The flexibility is of potential benefit to small-scale local business, who have opportunity to leverage off the airpark.</li> <li>- Policy 9.2.1.7(a) promotes economic benefits to the community by encouraging improved connectivity with Te Kowhai village.</li> <li>- Higher density development has the potential for economic benefits to developers due to critical mass of numbers.</li> <li>- Noise provisions are activity-specific and precinct-specific specific, in order to adapt to the complexity of airpark environments.</li> <li>- The rules provide scope for Council to control the operation of activities which generate excessive noise.</li> </ul>	<p>activities from establishing in some locations, which is potentially at an economic cost to some developers.</p> <ul style="list-style-type: none"> <li>- There is potentially an economic cost to landowners in the event that trees or structures protrude in the new protected airspace and require removal or trimming. There is potentially an environmental cost if significant numbers of trees require trimming or removal.</li> <li>- There will be some activities which are required to obtain resource consent and which are not permitted by right. This adds cost for some developers.</li> <li>- The adherence to development standards can impose a financial cost on developers.</li> <li>- There are potentially financial costs for activities to ensure that noise, construction and vibration effects to not have an adverse amenity effect.</li> <li>- There are financial costs on Council associated with enforcement of noise standards.</li> <li>- There is potentially an economic cost to the airpark if compliance with noise standards requires mitigation in the form of acoustic fencing.</li> <li>- There is potentially an economic cost to event organisers if they are constrained in the scope of their activity, or if they are</li> </ul>
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	<ul style="list-style-type: none"> <li>- Inclusion of the Air Noise Boundary on the planning maps provides clarity to neighbouring landowners as to the extent of noise that can be expected from aircraft approaching and leaving the runway.</li> <li>- There are environmental benefits and amenity gains in the management of noise to reasonable levels.</li> <li>- Dispensations provided by some landowners have enabled a relaxation of noise standards between 7.00pm and 10.00pm in some locations, thereby minimising impact on airpark activities and avoiding the need for acoustic fencing.</li> <li>- There are economic benefits to the airpark and the wider community in being able to host temporary events.</li> <li>- The potential to be IFR compliant gives Te Kowhai a strategic advantage over other aerodromes currently operating in the Waikato District.</li> </ul>	<ul style="list-style-type: none"> <li>- required to provide management plans (e.g. traffic management plan or waste management plans).</li> <li>- Implementation of the Noise Buffer will impose an economic cost on developers due to the increased standards of insulation required.</li> <li>- Implementation of the Airpark bulk and location standards will impose an economic cost on developers due to the increased standards of insulation required.</li> <li>- There is potentially an economic cost to landowners affected by the proposed OLS, in the event that trees or structures protrude in the new protected airspace and require removal or trimming.</li> <li>- Imposes a cost to developers through the provision of essential services and critical infrastructure (such as roads).</li> </ul>
	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>- Policy 9.2.1.7(a) promotes social benefits to the community by encouraging improved connectivity with Te Kowhai village.</li> <li>- Promotion of the OLS and noise control buffer provides certainty for developers and landowners as to what is or is not compatible with aviation activity.</li> <li>- There are public health and social wellbeing benefits to the community in</li> </ul>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>- The new OLS could also prevent some landowners from reaching their optimum development potential if the OLS imposes limitations with regards height and / or setback requirements. However, the number of landowners potentially affected in this manner is generally very low.</li> </ul>

	<p>knowing that activities will be managed to minimise noise-related effects.</p> <ul style="list-style-type: none"> <li>- There are social benefits to the airpark and the wider community in being able to host temporary events.</li> <li>- Implementation of the Noise Buffer Overlay has social and wellbeing benefits due to the higher standards of acoustic insulation.</li> <li>- Providing compliance is achieved with all relevant CAA standards, the revised OLS will enable Te Kowhai aerodrome to operate under IFR conditions as well as VFR.</li> <li>- The obstacle free airspace created by the new OLS will create a safer environment for pilots.</li> <li>- The ability to accommodate IFR is meeting the changing technological needs of the aviation sector (i.e. pilots have increasing access to digital navigation instrumentation).</li> <li>- The ability to accommodate IFR improves the sustainability of Te Kowhai aerodrome because it can be utilised by a wider range of general aviation pilots and aircraft.</li> <li>- Te Kowhai aerodrome potentially gives pilots other options in the event of bad weather.</li> <li>-</li> </ul>	
	<p><b>Cultural:</b></p> <ul style="list-style-type: none"> <li>- Policy 9.2.1.7(a) promotes cultural benefits</li> </ul>	<p><b>Cultural:</b></p> <ul style="list-style-type: none"> <li>- There are no identifiable cultural costs.</li> </ul>

	to the community by encouraging improved connectivity with Te Kowhai village.	
<b>Effects</b>		
<p><i>Overall Scale of Effects –</i> Effects resulting from the preferred alternative are localised to a radius of 2.5km from the centreline and ends of the runway, which represents the outer extent of the proposed OLS change. Within this radius, the OLS has the potential to affect the development potential of a small number of adjoining or nearby landowners, and consultation is ongoing between the aerodrome and those landowners.</p> <p>In comparison to the OLS, other effects, such ‘visual’ and ‘traffic’ effects have a limited catchment and are generally restricted to the immediate locality. The technical assessments contained in Section 3 of this report confirm that there are no aspects of the proposal which would result in District-wide environmental change.</p> <p>Making an overall judgement and based upon the evaluation in Appendix 13 of Part 3, the scale of effects is not considered to be significant.</p> <p><i>Overall Significance of Effects -</i> In practical terms, the airpark concept amounts to the clustering of residential development around an existing airfield in order to make sustainable use of a long-standing strategic resource. The assessments in Part 3 of this report demonstrate that the proposal will not result in District-wide environmental change, and that effects are generally localised to the immediate community. Although landowners within a 2.5km radius of the runway are potentially affected by the OLS, the predominant impact is on trees rather than existing structures. Consultation is ongoing with several landowners whose trees could be affected. The OLS studies within Part 3 of this report demonstrate that regard has been had to the impacts of OLS change on the development potential of adjoining properties. Making a broad overall judgement, the significance of effects is medium-low (i.e. scores 3 or below on the assessment criteria).</p> <p><i>Certainty of Effects –</i> There is a medium-to-high level of certainty regarding the effects associated with wholesale re-zoning (i.e. airpark development). A number of technical reports have been prepared to assess resultant environmental effects, including but not limited to: an Integrated Transport Assessment, an Acoustic Assessment and a Landscape and Visual Assessment Report. Supplementary information has also been provided regarding CAA compliance, the safety benefits of IFR and the environmental consequences of changing the OLS.</p> <p>There is a lower level of certainty regarding developer uptake and market response to the airpark because of the unique nature of the facility and the lack of comparable New Zealand examples. Therefore, there is also an element of uncertainty regarding opportunities for economic</p>		

growth and employment insofar as those impacts have not been quantified. That uncertainty is also in part due to the volatile nature of the aviation sector.

### **Opportunities for economic growth and employment**

*Status Quo –*

Opportunities for economic growth and employment are notably constrained under the status quo, because almost all form of development will trigger RMA consent requirements. The Rural Zone provisions impose strict limitations on the nature and scale of activities which can establish by right, and this does not extend to commercial activity which supports aerodromes. This is a disincentive for would-be investors and developers in the aviation sector because of the uncertainties involved.

Due to the localised nature of the proposal, low rigour has been applied to the assessment of cost, benefits and economic growth and employment resulting from the status quo.

*Rezoning the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

Rezoning of the aerodrome as part of the District Plan review enables the introduction of activities and businesses which support the aviation community, as well as the expansion of businesses which are already located at Te Kowhai aerodrome. The rezoning option would provide confidence for investors that commercial activities could establish by right within the commercial precinct, and this in turn would enhance localised employment opportunities. The niche nature of the facility could be expected to attract niche employment opportunities, most notably in the aviation sector.

The level of rigour used to assess economic and employment opportunity is low, because the airpark facility is one-of-a-kind within the Waikato District and because there are no other airpark examples of this scale within New Zealand. Therefore, assumptions have had to be made regarding economic and employment opportunities based upon overseas examples, as investigated by the aerodrome owners in 2016/2017.

### **Options less or not as appropriate to achieve the objective**

*Option 1: Status Quo:*

This approach relies upon the ongoing use of the existing objective, policy and rule framework for the management of land in the Rural Zone. Under the status quo, Te Kowhai Airpark would remain a Rural Zoned property and would be subject to the Rural Zone provisions.

**Appropriateness:**

The policies and rules that are required to implement this approach are those for the Rural Zone. Therefore, on-site development of the



aerodrome typically triggers a consent requirement, whereby activities are considered on a case-by-case basis. This makes no allowance for permitted development, the nature and scale of activities associated with aviation, the existing development of the site, the commercial activities required to commercially support an aerodrome, etc. This is a disincentive for would be investors and developers in the aviation sector and does not provide certainty of development for neighbours.

### **Risk of acting or not acting**

#### **Uncertainty or insufficiency of information:**

##### *Status Quo –*

There is sufficient information under the status quo to understand the effects associated with existing aerodrome activities (e.g. ANB and current OLS), and the constraints imposed by the District Plan Rural Zone provisions on aerodrome development.

However, under the status quo, there is no recognition of the changing needs of the aviation sector, and no provision to meet the future needs of that niche community.

##### *Rezone the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

This s32 analysis is based upon a medium-to-high level of information relating to traffic effects, landscape and visual effects and noise effects as evidenced by the technical assessments which are appended to this report. There is also a medium-to-high level of information relating to OLS effects due to the technical inputs from an aviation consultant (Astral Consultants), the OLS survey by Bloxam Burnett and Olliver and the design analysis by Adapt Studio, which considered impacts of the OLS on the development potential of adjacent properties.

There is a low level of information relating to employment and economic growth, because of the niche nature of the airpark, the uncertainty regarding market demand and the lack of comparable examples in New Zealand. Consideration has been had as to whether more information could be gathered to reduce uncertainty regarding economic and employment effects. On balance, this is considered to be of limited benefit because it is unlikely to have a high impact on the ability to evaluate options.

#### **Risk of acting or not acting:**

##### *Status Quo –*

The status quo relies upon a consent regime for almost all development within Te Kowhai aerodrome. The risk associated with this option is that development proceeds in an incremental and piecemeal fashion, with opportunities missed for integrated solutions and efficiencies. The risk of not acting is that the aviation sector cannot thrive within Waikato District and Te Kowhai aerodrome cannot meet its full potential as a strategically significant, safe and economically sustainable airpark.

*Rezone the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

There is a medium-to-high level of information relating to OLS effects due to the technical inputs from Astral Consultants, the OLS survey by Bloxam Burnett and Olliver and the design analysis by Adapt Studio, which considered impacts of the OLS on the development potential of adjacent properties. There is a residual risk (low-to-medium) acting upon this information because, regardless of the safety benefits to the aviation community, the proposed changes to the OLS will impose development restrictions on a small number of landowners. Te Kowhai aerodrome has sought to ameliorate that risk by consulting with potentially affected landowners, and by undertaking tree surveys on an as-requested basis.

Acting upon the uncertainty of employment and economic growth information is considered a low level of risk. This is because of the localised nature of the proposal and the niche sector which it serves. Whilst there will inevitably be economic and employment opportunities if the airpark is developed, it is unlikely to have District-wide or regional consequences with regard those effects. Nor is the feasibility of the airpark necessarily contingent upon employment and economic growth elsewhere within the District.

Making an overall judgement, the risk of not acting (based upon the technical information currently available) is considered medium-to-high. This is because the technical reports provided are sufficient to enable the evaluation of options.

The risk of not acting with regard to this alternative option is that the future needs of the aviation community will not be met, and Te Kowhai aerodrome will not meet its potential as a strategically significant, safe and economically sustainable airpark. Further, the implementation of this option will become increasingly difficult over time as the Te Kowhai environs become increasingly urbanised.

Uncertainty or insufficiency of information:

### **Efficiency and effectiveness**

- These policies will be efficient and effective at achieving Objective 9.2.1 because:
  - o They enable the aviation sector to provide for its wellbeing, to a significantly greater extent than the status quo;
  - o They provide more guidance as to how the objectives can be achieved;
  - o The benefits are considered to outweigh the costs.
- The Precinct Plan will be efficient and effective at achieving Objective 9.2.1 because the approach allows for a diversity of outcomes which are needed to meet the current and future needs of the aviation community and because the current and future needs of the aviation community have the potential to change over time, and thus require flexibility of options. The method will be effective because the benefits outweigh the costs.
- The activity status table will be efficient and effective to achieve Objective 9.2.1 by ensuring that appropriate activities are able to be undertaken within the airpark, whilst not providing for inappropriate activities.

- The general standard rules will be efficient and effective at achieving Objective 9.2.1 because they provide clarity regarding appropriate thresholds for the management of effects.
- The noise rules will be efficient and effective in achieving Objective 9.2.1 because they provide a clear framework that identifies appropriate standards relative to precinct, activity and time of day. The rules are based upon recommendations of the Hegley Acoustic Assessment which is attached as Appendix 3 of this section 32 report. The benefits of the noise provisions are considered to outweigh the costs.
- The temporary events rule is considered efficient and effective at achieving Objective 9.2.1 because it is designed to provide temporary flexibility without compromising amenity. The benefits outweigh the costs.
- The Noise Buffer Overlay is considered an effective and efficient method for giving effect to Objective 9.2.1, because it is a means of sustainably managing potentially adverse effects whilst at the same time providing for the future needs of the aviation community. Notwithstanding the economic costs faced by neighbouring developers, the benefits are considered to outweigh the costs.
- The bulk and location standards for the Airpark will be efficient and effective at achieving Objective 9.2.1 because they are designed to achieve good levels of on-site amenity without impacting on the functionality of the airpark. The benefits outweigh the costs.
- The new OLS has the potential to be both efficient and effective in supporting Objective 9.2.1, because it promotes a safer, obstacle free airspace to meet the changing needs of the aviation community. On balance, the safety benefits of the OLS are considered to outweigh the costs.
- The provisions are effective and efficient at achieving Objective 9.2.1 because they facilitate the subdivision of land as the catalyst for airpark development, thereby meeting the current and future needs of the aviation community.
- Establishing clear subdivision standards is a more efficient and effective means of site development that allowing subdivision works to proceed in a market-led, ad hoc manner. The benefits and expected outcomes of the required process outweigh the respective costs.

In summary, the provisions are considered to be effective at achieving the objectives because:

- They enable development of the aerodrome as a strategically significant airpark to meet the current and future needs of the aviation community;
- They promote a precinct-based approach to the strategic development and management of the airfield, including precinct-specific performance standards;
- They provide for a variety of commercial activities which support the aviation sector, and which leverage off existing aerodrome infrastructure;
- Airpark-specific performance standards provide for the unique operating requirements of an airpark whilst at the same time achieving appropriate levels of amenity;
- The provisions safeguard the aerodrome's existing and future operational needs thereby promoting long-term sustainability.

In summary, the provisions are generally considered to have a high level of efficiency because:

- They enable the aviation sector to provide for its wellbeing, to a significantly greater extent than the status quo;

- They minimise the need for ‘consenting’ activities which could reasonably be expected within airparks or aerodromes;
- The site-specific performance standards strike an effective balance between meeting the operational needs of the aviation sector and maintaining amenity values;
- They provide more guidance as to how the objectives can be achieved;
- They reduce the potential for reverse sensitivity effects;
- The precinct-based approach provides a level of certainty as to what is, and is not, acceptable within specified areas of the airpark.
- They recognise the importance of the interface between precincts, and the interface between the airpark and adjoining property.

## 5.4 Objective 9.2.2

*Objective 9.2.2 - Provide for future connectivity between Te Kowhai Airpark and Te Kowhai village in the Te Kowhai Airpark Framework Plan.*

This objective seeks to ensure that aviation, aviation-related activities, and future development of the Te Kowhai Aerodrome are managed such that adverse effects are at an acceptable level. The objective needs to be supported by related policies that provide direction on how this is to be achieved, with appropriate methods that result in acceptable amenity outcomes.

The provisions to achieve the objective are:

- a) 9.2.2.1 Policy - Airpark Standards
- b) Te Kowhai Airpark Zone – Precincts, Permitted Activities, Activity Specific Standards and Built Form Standards.

### 5.4.1 Identification of Options

In considering options for managing effects of aviation and aviation-related land uses a number of factors were taken into account including:

- The need to recognise a significant regional aerodrome.
- The need to ensure the aerodrome will comply with Civil Aviation standards and requirements, both now and in the future.
- The need to ensure a sufficient supply of land is available for aviation and aviation-related activities.
- The amenity of surrounding land uses.
- The environmental change to the locality.
- The level of effects generated by permitted aviation and aviation related land uses.

Options considered for providing for aviation and aviation-related land use included:

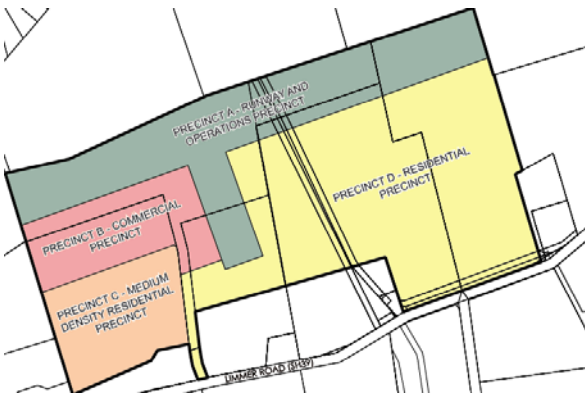
- A policy framework that provides clear direction on the use of the Te Kowhai Aerodrome versus one that stayed silent.
- A Precinct Plan that provides for and/or restricts a range of aviation activities and land uses within the zone.
- An enabling Activity Status Table that provides for aviation activities and compatible land uses as permitted activities or an Activity Status Table that requires resource consent for a range of activities.
- Standards for development, land use and subdivision.

## 5.4.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table 2 Evaluation of provisions

Provisions most appropriate	Effectiveness and Efficiency	
	Benefits	Costs
<p><b>a) Policies</b></p> <p>Policy 9.2.1.6(c) Sensitive land uses within the noise control boundary must achieve appropriate internal noise levels.</p> <p>Policy 9.2.2.1(a) Manage adverse airpark effects through the application of general and airpark-specific performance standards including:</p> <ul style="list-style-type: none"> <li>(i) Noise;</li> <li>(ii) Hazardous substances;</li> <li>(iii) Building setbacks;</li> <li>(iv) Minimum site areas; and</li> <li>(v) Subdivision allotment size.</li> </ul> <p>Policy 9.2.2.1(b) To ensure that bulk and location standards provide for the unique operational requirements of an airpark whilst at the same time achieving appropriate levels of amenity.</p>	<p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>- The policies have environmental benefits because they facilitate the development of site specific performance standards which recognise the complexity and sensitivity of aerodrome environments. Environmental benefits will also result from airpark standards which are designed to maintain amenity values and protect environmental quality.</li> <li>- Performance standards provide clarity and certainty for developers as to what is expected in each precinct. They also provide assurance to neighbouring landowners as to what scale and intensity of development is appropriate for the environment.</li> <li>- Each precinct has specific rules, which provides clarity to developers and the public as to what types of development are appropriate for each precinct.</li> <li>- A precinct-based approach facilitates consistency of outcome by ensuring that development occurs where it is most</li> </ul>	<p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>- The precinct-based approach removes developer flexibility to undertake all activities in all areas.</li> <li>- There will be some activities which are required to obtain resource consent and which are not permitted by right. This adds complexity for some developers.</li> <li>- There is potentially an environmental cost in providing for temporary events.</li> <li>- The Airpark bulk and location provisions may constrain the maximum development potential of a site.</li> <li>- There is potentially an environmental cost if significant numbers of trees require trimming or removal as a result of the new OLS.</li> <li>- The new OLS could also prevent some landowners from reaching their optimum development potential if the OLS imposes limitations with regards height and / or setback requirements. Based upon survey information to date, however, the number of landowners potentially affected in this</li> </ul>

<p><b>b) Precincts</b></p> <p>The airpark has been structured to allow management on a precinct basis. This includes: Precinct A (Runway and Operations), Precinct B (Commercial), Precinct C (Medium Density Residential) and Precinct D (Residential)</p>  <p><b>c) Activity Status Table</b></p> <p>An activity status table has been assigned to each precinct.</p> <p><b>d) General Standards</b></p> <p>Development of general standards for each precinct.</p> <p><b>e) Noise Standards</b></p>	<p>appropriate.</p> <ul style="list-style-type: none"> <li>- The method will result in benefits for users of the Plan because it provides a clear expectation of what is anticipated or appropriate within each precinct.</li> <li>- The identified activities provide for a good balance and diversity within the airpark. It recognises that multiple activities have the potential to support aviation activity, even of the activities themselves are not specifically aviation related.</li> <li>- Rules such as ‘parking and loading’, ‘on site manoeuvring’ and ‘hazardous substances’ are cross-referenced to District wide standards which are applicable to all Zones. In the context of environmental management, consistency of standards assists with consistency of outcomes.</li> <li>- Noise provisions are activity-specific and precinct-specific specific, in order to adapt to the complexity of airpark environments.</li> <li>- The rules provide scope for Council to control the operation of activities which generate excessive noise.</li> <li>- Inclusion of the Air Noise Boundary on the planning maps provides clarity to neighbouring landowners as to the extent of noise that can be expected from aircraft approaching and leaving the runway.</li> <li>- There are environmental benefits and amenity gains in the management of noise to reasonable levels.</li> <li>- Dispensations provided by some</li> </ul>	<p>manner is expected to be low.</p>
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**f) Temporary Events Standards**

**g) Noise Buffer Overlay**



**i) Airpark- Specific Bulk and Performance Standards**

**j) Obstacle Limitation Surface (New OLS)**

**k) Subdivision Standards**

- landowners have enabled a relaxation of noise standards between 7.00pm and 10.00pm in some locations, thereby minimising impact on airpark activities and avoiding the need for acoustic fencing.
- There are benefits to Council and the community in knowing that temporary events will be managed to minimise impacts on amenity.
  - The provisions strike a workable balance between the flexibility needed to host temporary events, and the controls needed to manage associated effects.
  - The provisions provide certainty for event organisers as to permitted thresholds and consent triggers.
  - The Noise Buffer Overlay provides clarity for adjoining landowners as to the extent of potential aircraft noise effects. It enables developers to plan accordingly in order to meet the mitigation standards outlined in the Acoustic Assessment Report (Appendix 3, Section 3 of s32 Summary Report).
  - The Noise Buffer Overlay minimises the risk of reverse sensitivity complaint against the airpark in the event of future development adjacent to the airpark's wester, southern and eastern boundaries.
  - The Noise Buffer is designed to manage noise effects, rather than prevent development.
  - Rules are tailored to meet the



	<p>complexities of the airpark environment, including the management of 'height' relative to OLS requirements.</p> <ul style="list-style-type: none"> <li>- The rules give a clear expectation of what is anticipated or appropriate within the airpark precincts.</li> <li>- The Airpark bulk and location provisions make allowance for the larger coverage areas needed to accommodate aircraft hangars, and to ensure adequate setback from taxiways.</li> <li>- Allowance has been made for increased setbacks from Airpark Zone boundaries in order to manage the interface between airpark and rural environments.</li> <li>- A consistent level of amenity and building potential is achieved within each precinct.</li> <li>- The 'height of structures', 'living court' and 'service court' provisions ensure an acceptable level of amenity for airpark residents.</li> <li>- The OLS builds upon existing aerodrome infrastructure, thereby avoiding the need to create a new aerodrome in a new location.</li> <li>- Supports the achievement of a functional, attractive and well-designed environment.</li> <li>- Provides certainty to developers through clear identification of Council's expectations and requirements</li> <li>- Recognises and provides for the different land use needs of different precincts.</li> </ul>	
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	<ul style="list-style-type: none"> <li>- Provides flexibility and choice of section sizes relative to servicing capabilities.</li> <li>- Allows for higher densities in the event of future Council reticulation.</li> <li>- By not providing for subdivision within Precinct A, it protects the ongoing use of the runway and airstrip.</li> <li>- Facilitates the efficient and effective provision of adequate infrastructure.</li> <li>- It allows for connectivity to future Council reticulated services, if and when that becomes available.</li> <li>- Supports the achievement of a functional, attractive and well-designed environment</li> <li>- The requirement for shelterbelt planting will assist with the mitigation of visual effects and soften the interface between the airpark and neighbouring property.</li> </ul>	
	<p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>- There are economic benefits to the airpark and the wider community in being able to host temporary events.</li> <li>- The potential to be IFR compliant gives Te Kowhai a strategic advantage over other aerodromes currently operating in the Waikato District.</li> </ul>	<p><b>Economic:</b></p> <ul style="list-style-type: none"> <li>- There are potential financial costs to developers associated with adhering to performance standards.</li> <li>- Performance standards will potentially limit the nature or extent of activities which can be undertaken in some precincts. That has the potential to result in an economic cost.</li> <li>- There will be some activities which are required to obtain resource consent and which are not permitted by right. This adds cost for some developers.</li> <li>- The adherence to development standards can impose a financial cost on developers.</li> </ul>

		<ul style="list-style-type: none"> <li>- There are potentially financial costs for activities to ensure that noise, construction and vibration effects to not have an adverse amenity effect.</li> <li>- There are financial costs on Council associated with enforcement of noise standards.</li> <li>- There is potentially an economic cost to the airpark if compliance with noise standards requires mitigation in the form of acoustic fencing.</li> <li>- There is potentially an economic cost to event organisers if they are constrained in the scope of their activity, or if they are required to provide management plans (e.g. traffic management plan or waste management plans).</li> <li>- Implementation of the Noise Buffer will impose an economic cost on developers due to the increased standards of insulation required.</li> <li>- Implementation of the Airpark bulk and location standards will impose an economic cost on developers due to the increased standards of insulation required.</li> <li>- There is potentially an economic cost to landowners affected by the proposed OLS, in the event that trees or structures protrude in the new protected airspace and require removal or trimming.</li> <li>- Time and financial costs to developers due to the subdivision consent process.</li> </ul>
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		<ul style="list-style-type: none"> <li>- Imposes a cost to developers through the provision of essential services and critical infrastructure (such as roads).</li> </ul>
	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>- The policies have social benefits because they facilitate a managed environment whereby adverse effects are appropriately controlled. In so doing, it maintains the wellbeing of people and communities.</li> <li>- There are public health and social wellbeing benefits to the community in knowing that activities will be managed to minimise noise-related effects.</li> <li>- There are social benefits to the airpark and the wider community in being able to host temporary events.</li> <li>- Implementation of the Noise Buffer Overlay has social and wellbeing benefits due to the higher standards of acoustic insulation.</li> <li>- Providing compliance is achieved with all relevant CAA standards, the revised OLS will enable Te Kowhai aerodrome to operate under IFR conditions as well as VFR.</li> <li>- The obstacle free airspace created by the new OLS will create a safer environment for pilots.</li> <li>- The ability to accommodate IFR is meeting the changing technological needs of the aviation sector (i.e. pilots have increasing access to digital navigation instrumentation).</li> <li>- The ability to accommodate IFR improves</li> </ul>	<p><b>Social:</b></p> <ul style="list-style-type: none"> <li>- Performance standards will potentially limit the nature or extent of activities which can be undertaken in some precincts. That has the potential to result in a social cost.</li> <li>- By imposing minimum lot sizes, it potentially restricts the extent of development for the aerodrome.</li> </ul>

	<p>the sustainability of Te Kowhai aerodrome because it can be utilised by a wider range of general aviation pilots and aircraft.</p> <ul style="list-style-type: none"> <li>- Te Kowhai aerodrome potentially gives pilots other options in the event of bad weather.</li> </ul>	
	<p>Cultural:</p> <ul style="list-style-type: none"> <li>- There are no identifiable cultural benefits.</li> </ul>	<p>Cultural:</p> <ul style="list-style-type: none"> <li>- There are no identifiable cultural costs..</li> </ul>
<b>Effects</b>		
<p><i>Overall Scale of Effects –</i>  Effects resulting from the preferred alternative are localised to a radius of 2.5km from the centreline and ends of the runway, which represents the outer extent of the proposed OLS change. Within this radius, the OLS has the potential to affect the development potential of a small number of adjoining or nearby landowners, and consultation is ongoing between the aerodrome and those landowners.</p> <p>In comparison to the OLS, other effects, such ‘visual’ and ‘traffic’ effects have a limited catchment and are generally restricted to the immediate locality. The technical assessments contained in Section 3 of this report confirm that there are no aspects of the proposal which would result in District-wide environmental change.</p> <p>Making an overall judgement and based upon the evaluation in Appendix 13 of Part 3, the scale of effects is not considered to be significant.</p> <p><i>Overall Significance of Effects -</i>  In practical terms, the airpark concept amounts to the clustering of residential development around an existing airfield in order to make sustainable use of a long-standing strategic resource. The assessments in Part 3 of this report demonstrate that the proposal will not result in District-wide environmental change, and that effects are generally localised to the immediate community. Although landowners within a 2.5km radius of the runway are potentially affected by the OLS, the predominant impact is on trees rather than existing structures. Consultation is ongoing with a number of landowners whose trees could be affected. The OLS studies within Part 3 of this report demonstrate that regard has been had to the impacts of OLS change on the development potential of adjoining properties. Making a broad overall judgement, the significance of effects is considered to be medium-low (i.e. scores 3 or below on the assessment criteria).</p> <p><i>Certainty of Effects –</i>  There is a medium-to-high level of certainty regarding the effects associated with wholesale re-zoning (i.e. airpark development). A number of technical reports have been prepared to assess resultant environmental effects, including but not limited to: an Integrated Transport Assessment, an Acoustic Assessment and a Landscape and Visual Assessment Report. Supplementary information has also been provided</p>		

regarding CAA compliance, the safety benefits of IFR and the environmental consequences of changing the OLS.

There is a lower level of certainty regarding developer uptake and market response to the airpark because of the unique nature of the facility and the lack of comparable New Zealand examples. Therefore, there is also an element of uncertainty regarding opportunities for economic growth and employment insofar as those impacts have not been quantified. That uncertainty is also in part due to the volatile nature of the aviation sector.

### **Opportunities for economic growth and employment**

*Status Quo –*

Opportunities for economic growth and employment are notably constrained under the status quo, because almost all form of development will trigger RMA consent requirements. The Rural Zone provisions impose strict limitations on the nature and scale of activities which can establish by right, and this does not extend to commercial activity which supports aerodromes. This is a disincentive for would-be investors and developers in the aviation sector because of the uncertainties involved.

Due to the localised nature of the proposal, low rigour has been applied to the assessment of cost, benefits and economic growth and employment resulting from the status quo.

*Rezone the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

Rezoning of the aerodrome as part of the District Plan review enables the introduction of activities and businesses which support the aviation community, as well as the expansion of businesses which are already located at Te Kowhai aerodrome. The rezoning option would provide confidence for investors that commercial activities could establish by right within the commercial precinct, and this in turn would enhance localised employment opportunities. The niche nature of the facility could be expected to attract niche employment opportunities, most notably in the aviation sector.

The level of rigour used to assess economic and employment opportunity is low, because the airpark facility is one-of-a-kind within the Waikato District and because there are no other airpark examples of this scale within New Zealand. Therefore, assumptions have had to be made regarding economic and employment opportunities based upon overseas examples, as investigated by the aerodrome owners in 2016/2017.

### **Options less or not as appropriate to achieve the objective**

*Option 1: Status Quo:*

This approach relies upon the ongoing use of the existing objective, policy and rule framework for the management of land in the Rural Zone. Under the status quo, Te Kowhai Airpark would remain a Rural Zoned property and would be subject to the Rural Zone provisions.

**Appropriateness:**

The policies and rules that are required to implement this approach are those for the Rural Zone. Therefore, on-site development of the aerodrome typically triggers a consent requirement, whereby activities are considered on a case-by-case basis. This makes no allowance for permitted development, the nature and scale of activities associated with aviation, the existing development of the site, the commercial activities required to commercially support an aerodrome, etc. This is a disincentive for would be investors and developers in the aviation sector and does not provide certainty of development for neighbours.

**Risk of acting or not acting****Uncertainty or insufficiency of information:***Status Quo –*

There is sufficient information under the status quo to understand the effects associated with existing aerodrome activities (e.g. ANB and current OLS), and the constraints imposed by the District Plan Rural Zone provisions on aerodrome development.

However, under the status quo, there is no recognition of the changing needs of the aviation sector, and no provision to meet the future needs of that niche community.

*Rezone the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

This s32 analysis is based upon a medium-to-high level of information relating to traffic effects, landscape and visual effects and noise effects as evidenced by the technical assessments which are appended to this report. There is also a medium-to-high level of information relating to OLS effects due to the technical inputs from an aviation consultant (Astral Consultants), the OLS survey by Bloxam Burnett and Olliver and the design analysis by Adapt Studio, which considered impacts of the OLS on the development potential of adjacent properties.

There is a low level of information relating to employment and economic growth, because of the niche nature of the airpark, the uncertainty regarding market demand and the lack of comparable examples in New Zealand. Consideration has been had as to whether more information could be gathered to reduce uncertainty regarding economic and employment effects. On balance, this is considered to be of limited benefit because it is unlikely to have a high impact on the ability to evaluate options.

**Risk of acting or not acting:***Status Quo –*

The status quo relies upon a consent regime for almost all development within Te Kowhai aerodrome. The risk associated with this option is

that development proceeds in an incremental and piecemeal fashion, with opportunities missed for integrated solutions and efficiencies. The risk of not acting is that the aviation sector cannot thrive within Waikato District and Te Kowhai aerodrome cannot meet its full potential as a strategically significant, safe and economically sustainable airpark.

*Rezone the aerodrome site to Airpark or equivalent as part of the Waikato District Plan review -*

There is a medium-to-high level of information relating to OLS effects due to the technical inputs from Astral Consultants, the OLS survey by Bloxam Burnett and Olliver and the design analysis by Adapt Studio, which considered impacts of the OLS on the development potential of adjacent properties. There is a residual risk (low-to-medium) acting upon this information because, regardless of the safety benefits to the aviation community, the proposed changes to the OLS will impose development restrictions on a small number of landowners. Te Kowhai aerodrome has sought to ameliorate that risk by consulting with potentially affected landowners, and by undertaking tree surveys on an as-requested basis.

Acting upon the uncertainty of employment and economic growth information is considered a low level of risk. This is because of the localised nature of the proposal and the niche sector which it serves. Whilst there will inevitably be economic and employment opportunities if the airpark is developed, it is unlikely to have District-wide or regional consequences with regard those effects. Nor is the feasibility of the airpark necessarily contingent upon employment and economic growth elsewhere within the District.

Making an overall judgement, the risk of not acting (based upon the technical information currently available) is considered medium-to-high. This is because the technical reports provided are sufficient to enable the evaluation of options.

The risk of not acting with regard to this alternative option is that the future needs of the aviation community will not be met, and Te Kowhai aerodrome will not meet its potential as a strategically significant, safe and economically sustainable airpark. Further, the implementation of this option will become increasingly difficult over time as the Te Kowhai environs become increasingly urbanised.

### **Efficiency and effectiveness**

- These policies will be efficient and effective to achieve objective 9.2.2 because performance standards are a tried and tested means of managing environmental effects. They also provide more guidance as to how the objectives can be achieved.
- The policies are effective because, by managing adverse effects, amenity values are maintained and the sustainability of the aerodrome ultimately improved. Overall, it is an effective approach because the benefits outweigh the costs.
- The Precinct Plan will be efficient and effective at achieving Objective 9.2.2 because the approach allows for a diversity of outcomes which are needed to meet the current and future needs of the aviation community. The method will be effective because the benefits outweigh the costs.
- The activity status table will be efficient and effective to achieve Objective 9.2.2 by ensuring that appropriate activities are able to be



undertaken within the airpark, whilst not providing for inappropriate activities.

- The general standard rules will be efficient and effective at achieving Objective 9.2.2 because they provide clarity regarding appropriate thresholds for the management of effects.
- The noise rules will be efficient and effective in achieving Objective 9.2.2 because they provide a clear framework that identifies appropriate standards relative to precinct, activity and time of day. The rules are based upon recommendations of the Hegley Acoustic Assessment which is attached as Appendix 3 of this section 32 report. The benefits of the noise provisions are considered to outweigh the costs.
- The temporary events rule is considered efficient and effective at achieving Objective 9.2.2 because it is designed to provide temporary flexibility without compromising amenity. The benefits outweigh the costs.
- The Noise Buffer Overlay is considered an effective and efficient method for giving effect to Objective 9.2.2, because it is a means of sustainably managing potentially adverse effects whilst at the same time providing for the future needs of the aviation community. Notwithstanding the economic costs faced by neighbouring developers, the benefits are considered to outweigh the costs.
- The bulk and location standards for the Airpark will be efficient and effective at achieving Objective 9.2.2 because they are designed to achieve good levels of on-site amenity without impacting on the functionality of the airpark. The benefits outweigh the costs.
- The new OLS has the potential to be both efficient and effective in supporting Objective 9.2.2, because it promotes a safer, obstacle free airspace to meet the changing needs of the aviation community. On balance, the safety benefits of the OLS are considered to outweigh the costs.
- The provisions are effective and efficient at achieving Objective 9.2.2 because they facilitate the subdivision of land as the catalyst for airpark development, thereby meeting the current and future needs of the aviation community.
- Establishing clear subdivision standards is a more efficient and effective means of site development than allowing subdivision works to proceed in a market-led, ad hoc manner. The benefits and expected outcomes of the required process outweigh the respective costs.

In summary, the provisions are considered to be effective at achieving the objectives because:

- They enable development of the aerodrome as a strategically significant airpark to meet the current and future needs of the aviation community;
- They promote a precinct-based approach to the strategic development and management of the airfield, including precinct-specific performance standards;
- They provide for a variety of commercial activities which support the aviation sector, and which leverage off existing aerodrome infrastructure;
- Airpark-specific performance standards provide for the unique operating requirements of an airpark whilst at the same time achieving appropriate levels of amenity;
- The provisions safeguard the aerodrome's existing and future operational needs thereby promoting long-term sustainability.

In summary, the provisions are generally considered to have a high level of efficiency because:

- They enable the aviation sector to provide for its wellbeing, to a significantly greater extent than the status quo;
- They minimise the need for 'consenting' activities which could reasonably be expected within airparks or aerodromes;
- The site-specific performance standards strike an effective balance between meeting the operational needs of the aviation sector and maintaining amenity values;
- They provide more guidance as to how the objectives can be achieved;
- They reduce the potential for reverse sensitivity effects;
- The precinct-based approach provides a level of certainty as to what is, and is not, acceptable within specified areas of the airpark.
- They recognise the importance of the interface between precincts, and the interface between the airpark and adjoining property.

## 6 CONCLUSION

After undertaking an evaluation as required by Section 32 of the RMA, Objectives 1 and 2 are considered the most appropriate way to achieve the Purpose of the RMA (Section 5) and to address the issues identified in section 2.1 of this report.

It is considered that the recommended policies and methods outlined above are the most appropriate way for achieving the objectives, having considered:

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

## 7 GLOSSARY

Terminology and abbreviations used throughout this report include:

<b>Term/ Abbreviation</b>	<b>Description</b>
VRF	Visual Flight Rules
IFR	Instrument Flight Rules
OLS	Obstacle Limitation Surface
ANB	Air Noise Boundary
ODP	Operative District Plan
TKA	Te Kowhai Airpark
CAA	Civil Aviation Authority
NZTA	New Zealand Transport Agency
HCC	Hamilton City Council
WRC	Waikato Regional Council

# **APPENDIX I: LANDSCAPE AND VISUAL ASSESSMENT (BOFFA MISKELL CONSULTANTS)**

# **APPENDIX 2: INTEGRATED TRANSPORT ASSESSMENT (BLOXAM BURNETT AND OLLIVER)**

# **APPENDIX 3: ACOUSTIC ASSESSMENT (HEGLEY ACOUSTIC CONSULTANTS)**

# **APPENDIX 4: THREE WATERS FEASIBILITY REPORT (HOLMES CONSULTING)**

# **APPENDIX 5: WASTEWATER RECOMMENDING REPORT (HOLMES CONSULTING)**



# **APPENDIX 6: AVIATION ASSESSMENT AND OLS RECOMMENDATIONS (ASTRAL CONSULTANTS)**

# APPENDIX 7: EVIDENCE OF CONSULTATION

# **APPENDIX 8: TE KOWHAI AIRPARK FRAMEWORK PLAN**

# APPENDIX 9: TE KOWHAI AIRPARK PRECINCT PLAN

# **APPENDIX 10: PROPOSED TE KOWHAI AIRPARK NOISE BUFFER**

# **APPENDIX II: PROPOSED OBSTACLE LIMITATION SURFACE PLAN**

# **APPENDIX 12: OBSTACLE LIMITATION STUDIES (ADAPT STUDIO)**

# **APPENDIX 13: SUMMARY ASSESSMENT OF ENVIRONMENTAL EFFECTS**



# **APPENDIX 14: TE KOWHAI COMMUNITY PLAN**

# **APPENDIX 15: TE KOWHAI RUNWAY FUTURE PROOFING STUDY (ADAPT STUDIO)**

# **APPENDIX 16: URBAN DESIGN RULE TESTING (ADAPT STUDIO)**

# **APPENDIX 17: CIVIL AVIATION CIRCULAR AC 139-10**

## APPENDIX 18: PROVISION CASCADE

Issue to be addressed	Objective	Policies	Rules
Te Kowhai Aerodrome form and development	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.	<p>Policy 9.2.1.1(a): Facilitate development of Te Kowhai Airpark by providing for a diversity of residential and commercial opportunities which leverage off existing aerodrome infrastructure.</p> <p>Policy 9.2.1.2(a): Development is to be adequately serviced with respect to essential services, water supply, wastewater treatment and disposal and stormwater treatment and disposal.</p> <p>Policy 9.2.1.3(a): Provide a precinct-based approach for the strategic development and management of Te Kowhai Aerodrome such that:</p> <ul style="list-style-type: none"> <li>(i) Precinct A- provides for a runway, runway strip and associated aircraft operations;</li> <li>(ii) Precinct B- provides for commercial activities which supports the airpark and the aviation sector;</li> <li>(iii) Precinct C- provides for medium density residential activities;</li> <li>(iv) Precinct D- provides for low density residential development and a transitional higher density airside overlay;</li> </ul>	<p>27.1 Activities</p> <p>27.2 Land use – Effects:</p> <ul style="list-style-type: none"> <li>- 27.2.1 On Site Services</li> <li>- 27.2.2 Access and road performance standards</li> <li>- 27.2.3 On Site parking and loading</li> <li>- 27.2.4 On site manoeuvring</li> <li>- 27.2.5 Vehicle movements</li> <li>- 27.2.6 Noise – Other than Taxiways</li> <li>- 27.2.7 Noise – Taxiways</li> <li>- 27.2.8 Construction Noise</li> <li>- 27.2.9 Glare and Lighting</li> <li>- 27.2.10 Earthworks</li> <li>- 27.2.11 Hazardous Substances</li> <li>- 27.2.12 Signs</li> <li>- 27.2.13 Signs – effects on traffic</li> <li>- 27.2.14 Temporary Event</li> <li>- 27.2.15 Outdoor storage</li> </ul> <p>27.3 Land Use – Building:</p> <ul style="list-style-type: none"> <li>- 27.3.1 Height of buildings, structures, trees and other vegetation</li> <li>- 27.3.2 Daylight Admission</li> <li>- 27.3.3 Building coverage and impervious area</li> <li>- 27.3.4 Building setbacks – General</li> <li>- 27.3.5 Building setback from taxiway</li> <li>- 27.3.6 Building setback from airpark zone boundary</li> <li>- 27.3.7 Building setback from a State Highway</li> </ul>

		<p>(v) All precincts - have taxiway connectivity with the runway.</p> <p>Policy 9.2.1.4(a): On-site activities must be consistent with the precinct functions identified in the Te Kowhai Airpark Framework Plan.</p> <p>Policy 9.2.1.5(a): Provide for commercial activities that support Te Kowhai Airpark and the aviation sector, including but not limited to hangars, workshops and refuelling facilities.</p> <p>Policy 9.2.1.6(a): Te Kowhai Aerodrome's existing and future operational needs are safeguarded through mechanisms such as airspace protection (Obstacle Limitation Surface) and noise control boundaries.</p> <p>Policy 9.2.1.6(b): Buildings, structures and trees must not create a potential hazard to the flight paths of aircraft or any other operations associated with Te Kowhai Aerodrome by intruding into the aerodrome's protected airspace.</p> <p>Policy 9.2.1.7(a): Provide for future connectivity between Te Kowhai Airpark and Te Kowhai village in the Te Kowhai Airpark Framework Plan.</p>	<ul style="list-style-type: none"> <li>- 27.3.8 Living Court</li> <li>- 27.3.9 Service Court</li> <li>- 27.3.10 Wastewater treatment setback</li> <li>- 27.3.11 Number of Dwellings</li> <li>- 27.3.12 Minor Dwelling</li> <li>- 27.3.13 Minimum site area for a dwelling</li> </ul> <p>27.4 Subdivision:</p> <ul style="list-style-type: none"> <li>- 27.4.1 Subdivision General</li> <li>- 27.4.2 Subdivision Allotment Size</li> <li>- 27.4.3 Title boundaries</li> <li>- 27.4.4 Road frontage</li> <li>- 27.4.5 Road access</li> <li>- 27.4.6 Building Platform</li> <li>- 27.4.7 perimeter shelter-belt planting</li> </ul>
The adverse effects	The adverse effects of	Policy 9.2.1.6(c):	

<p>of subdivision or development of airpark activities on surrounding land use, character and amenity values are avoided</p>	<p>airpark activities are managed to ensure acceptable amenity outcomes.</p>	<p>Sensitive land uses within the noise control boundary must achieve appropriate internal noise levels.</p> <p>Policy 9.2.2.1(a): Manage adverse airpark effects through the application of general and airpark-specific performance standards including:</p> <ul style="list-style-type: none"> <li>(a) Noise;</li> <li>(b) Hazardous substances;</li> <li>(c) Building setbacks;</li> <li>(d) Minimum site areas; and</li> <li>(e) Subdivision allotment size.</li> </ul> <p>Policy 9.2.2.1(b): To ensure that bulk and location standards provide for the unique operational requirements of an airpark whilst at the same time achieving appropriate levels of amenity.</p>	
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