

# North Shore Airport Topic Report

## Silverdale West Dairy Flat Business Area Structure Plan

December 2017





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# 1 Executive Summary

This report provides an outline of existing information and previous planning relevant to the North Shore Airport and the Silverdale West Dairy Flat Business Area structure plan. It draws on information that is known or currently in progress, including from the North Shore Aero Club.

The North Shore Airport is not located within the structure plan area but it is surrounded on three sides by the structure plan area to the east of Postman Road and south of Wilks Road. The North Shore Aero Club owns and operates the airport and has 450 members and 207 aircraft registered at the field. The airport has an important flight training role and commercial flights also operate from it.

The Auckland Unitary Plan Operative in Part (AUPOP) Regional Policy statement recognises the need to protect significant regional infrastructure which includes airports.

The AUPOP District Plan also recognises the airport and it has an underlying zone of Special Purpose Airport and Airfields zone and is also covered by the North Shore Airport Precinct and. The precinct provides for the continued operation of the airport. The AUPOP also includes an Airport Approach Surface Overlay and Aircraft Noise Overlay both of which affect the structure plan area.

The Aero Club sees the airport as becoming a significant regional transport asset and hub and has growth aspirations. It is concerned about development around the airport for safety reasons and reverse sensitivity effects on the airport arising from noise, particularly for residential use and other noise sensitive activities.

The identification of business land around the airport in the Future Urban Land Supply Strategy 2017 (FULSS) is to help mitigate reverse sensitivity effects on the airport. The detailed planning for urban development of this land through the structure plan process therefore needs to consider the effects on the airport and vice versa.

## 2 Introduction

### 2.1 Purpose and scope of the report

This report provides an outline of existing information and previous planning relevant to the North Shore Airport and the Silverdale West Dairy Flat Business Area structure plan. From this a preliminary list of opportunities, constraints and gaps in information has been identified.

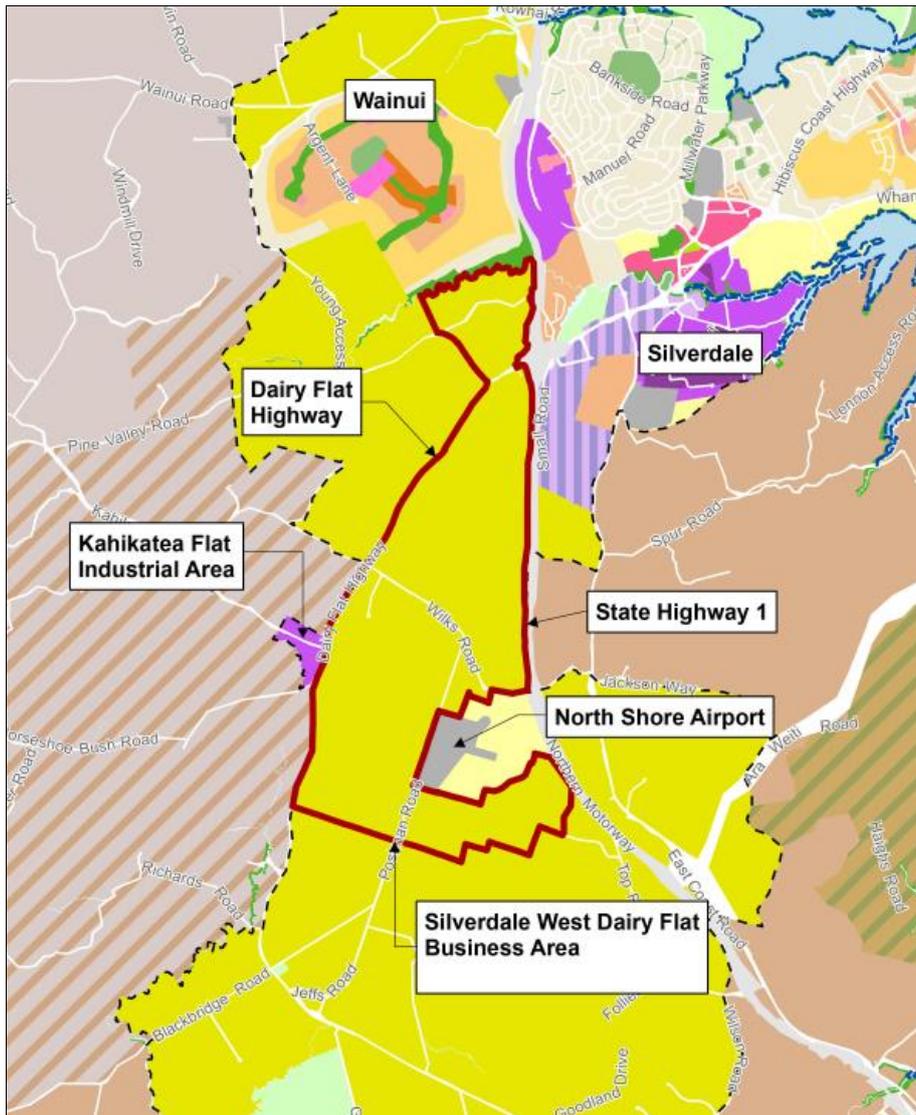
This report draws on information that is known or currently in progress. It has been informed by the Future Urban Land Supply Strategy 2017(FULSS), Supporting Growth Programme 2016 (Transport for Future Urban Growth) submissions and hearing evidence

submitted by the North Shore Aero Club and other interested parties, to the Auckland Unitary Plan and the FULSS (see references) and direct discussions with the Aero Club.

### 2.2 The Airport

The North Shore Airport is not located within the structure plan area but it is surrounded on three sides by the structure plan area to the east of Postman Road and south of Wilks Road (see Figure 1).

Figure 1 North Shore Airport



The North Shore Aero Club owns and operates the airport. It has 450 members and there are 207 aircraft registered at the field. The airport has an important training function with several flight training organisations operating from it for fixed wing and helicopter training. The Aero Club believes that forecast aircraft movements will increase as the demand for recreational pilot training is increasing.

There are nine aviation related businesses operating at the airport including Great Barrier Airlines, Sun Air and Commercial Helicopters. Scheduled air operations and air charter services operate to and from North Shore Airport and Kerikeri, Whangarei, Great Barrier Island, Whitianga, Auckland International Airport, Tauranga and Rotorua. Other businesses include aircraft maintenance facilities and helicopter manufacturers. Nearly 100 people are employed at the airport.

Emergency and public services also frequently use the airports facilities. The Northland Emergency Services Trust (NEST) bases at least one helicopter at the airport at any given time. NEST provides medical transfer flights and emergency/rescue services for Auckland/Northland and the upper half of the North Island. The Westpac Rescue and police helicopters also use the airport when required. The Royal New Zealand Air Force uses the airport to assist in pilot and mission training and as an alternative to RNZAF Base Auckland (Whenuapai) if required.

Currently the sealed main runway is 791m long by 9m wide and extends in a north east south west direction. It is paved, lit, which enables night approaches, and also has instrument approaches. There is a smaller cross runway that runs east west.

The Aero Club sees the airport as becoming a significant regional transport asset and hub and has future growth aspirations including:

- Widening and lengthening the main sealed runway;
- Providing infrastructure and facilities for passenger traffic, servicing and maintenance of aircraft and freight;
- Improved flying schools.

The Aero Club considers that ideally the sealed runway would be able to be extended to 1100m long and widened to 30m and sit within a 1220m by 150m strip with 90m long runway safety areas beyond each end. It considers that this sealed runway length would be adequate for the operation of larger aircraft such as the 50 seat Bombardier Q300. If this proposal were to eventuate, it would involve the Aero Club purchasing additional land to the west of Postman Road and realigning Postman Road.

The Aero Club is concerned about development around the airport for two main reasons. The first is safety and the Aero Club seek that emergency landing areas be identified at either end of the runway which should be clear of structures.

The second issue is reverse sensitivity arising from noise, particularly for residential and other noise sensitive activities.

The detailed planning for urban development of this land through the structure plan process therefore needs to consider the effects on the airport and the effects of the airport on future land uses.

In submissions to the FULSS process in 2017 the Aero Club requested that the business area shown in the FULSS be extended to include all of the land under the 55dB Ldn (see section 3.3 below) for the following reasons:

- a) The current area ignores the main take-off flight paths to the south-west under which suitable land uses must be carefully considered;
- b) The area ignores the predominant flight circuit to the south under which suitable land uses must also be carefully considered;
- c) The 'business' area would benefit from being larger to facilitate appropriate economic opportunities for the north.

The revised FULLS did not extend the business area as that was not the role of the FULSS. Any change to the extent of the business area is a matter that could be considered through this structure plan process if necessary, taking into account the economic assessment of the amount of business land required.

The land around the airport is the flattest and otherwise least constrained for urban development of the land in the Future Urban zone west of the motorway. The land is very attractive for urban development and given the shortage of such land in the region, landuse strategies need to be developed to enable its development while taking into account the airport's continued operation and development.

### **3 Strategic context - statutory and non-statutory**

This section contains excerpts from relevant policy documents which support the need to address the airport related issues described in this report. The policy framework referred to provides the mandate for the council to deliver outcomes relating to the airport through the structure plan process.

#### **3.1 The Auckland Plan 2012**

Adopted in 2012, the Auckland Plan sets the overall strategy for Auckland. Key to the plan is the development strategy for accommodating future growth up to 2040, with up to 40 per cent of growth in greenfield areas, satellite towns, rural and coastal towns.

In the broader context it deals with airports and has a number of references and directions relating to airports including the North Shore Airport (or as referred to in the plan, Dairy Flat airstrip). These are outlined below.

In Section D, Auckland's High Level Development Strategy, D1 Key shapers and enablers, it is stated that:

*Of all infrastructure, transport (roads, rail, ferries, ports, airports) has the strongest influence on the location, patterns and quality of place.*

The airport is also identified in Map 6.1 Auckland's Economy which shows, among other things, key economic infrastructure.

In Chapter 10 on Urban Auckland, the discussion of business areas recognises airports as business and employment areas.

Chapter 12 addresses Auckland's Physical and Social Infrastructure and in Table 12.2 Existing Critical Infrastructure, the North Shore Airport (Dairy Flat airstrip) is identified.

The plan specifically deals with transport issues in Chapter 13 - Transport. In this section Directive 13.1 is to:

*Manage Auckland's transport system in accordance with the principles in Box 13.1...*

In relation to the airport, principles 5 and 10 are relevant and are to:

- 5) *Optimise existing and proposed transport investment.*
- 10) *Ensure that transport is sustainable in the long term, minimises negative impacts on people's health and the built and natural environment.....*

Also, Directive 13.2 refers to managing Auckland's transport system according to the list of functions including national - inter-regional connections by road, rail, sea and air.

The chapter specifically recognises the North Shore Airport and states:

*Additionally, we will protect the operations of our smaller airports such as Ardmore and Dairy Flat, (currently used for recreation), as they can provide a flexible alternative for future freight movements....*

Based on current knowledge set out in section 2.2 above, the North Shore Airport (Dairy Flat) is used for more than just recreation use.

The Auckland Plan therefore recognises the role of the North Shore Airport and even at this high level provides direction to protect such transport infrastructure.

### 3.2 Future Urban Land Supply Strategy

The reviewed FULSS, 2017 identifies part of the Silverdale West Dairy Flat area specifically for business and it is sequenced to be development ready in the period 2018 – 2022.

The proposed business area is timed ahead of the rest of the Silverdale Dairy Flat area to provide local employment opportunities for the Hibiscus Coast area including the live zoned land at Wainui, and to reduce the need for people to travel out of the area for work.

The specific identification of business land around the airport is in part to mitigate reverse sensitivity effects on the airport.

### 3.3 The Auckland Unitary Plan (Operative in Part)

Under section 2 of the Resource Management Act the definition of “Infrastructure” includes:

*An airport as defined in section 2 of the Airport Authorities Act 1966.*

The AUPOP defines Airport as follows:

*Any defined area of land or water intended or designated to be used either wholly or partly for the landing, departure, movement, or servicing of aircraft, and includes land wholly or partly connected with such activities or their administration, or used for the wider operations and activities to meet the needs of passengers, visitors and employees and businesses located at the airport.*

*Excludes:*

- *private helipads used by the occupiers of a property on a non-commercial basis; and*
- *rural airstrips.*

#### Regional Policy Statement

Chapter B3 on Infrastructure transport and energy addresses the issue of airports.

Section B3.2. Infrastructure sets out the following objectives and policies relevant to the airport:

##### *B3.2.1. Objectives*

- (1) *Infrastructure is resilient, efficient and effective.*
- (2) *The benefits of infrastructure are recognised, including:*
  - (a) *providing essential services for the functioning of communities, businesses and industries within and beyond Auckland;*
  - (b) *enabling economic growth;*
  - (c) *contributing to the economy of Auckland and New Zealand;*
  - (d) *providing for public health, safety and the well-being of people and communities;*
  - (e) *protecting the quality of the natural environment; and*
  - (f) *enabling interaction and communication, including national and international links for trade and tourism.*

- (3) *Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on:...*
  - (b) *the health and safety of communities and amenity values.*
- (4) *The functional and operational needs of infrastructure are recognised.*
- (5) *Infrastructure planning and land use planning are integrated to service growth efficiently.*
- (6) *Infrastructure is protected from reverse sensitivity effects caused by incompatible subdivision, use and development.....*
- (8) *The adverse effects of infrastructure are avoided, remedied or mitigated.*

#### *B3.2.2. Policies*

##### *Provision of infrastructure*

- (1) *Enable the efficient development, operation, maintenance and upgrading of infrastructure.*
- (2) *Recognise the value of investment in existing infrastructure ....*

##### *Reverse sensitivity*

- (3) *Avoid where practicable, or otherwise remedy or mitigate, adverse effects of subdivision, use and development on infrastructure....*
- (5) *Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure.....*

##### *Managing adverse effects*

- (7) *Encourage the co-location of infrastructure and the shared use of existing infrastructure corridors where this is safe and satisfies operational and technical requirements.*

Section B3.3. Transport contains more specific objectives and policies relating to transport and include:

#### *B3.3.1. Objectives*

- (1) *Effective, efficient and safe transport that:*
  - (a) *supports the movement of people, goods and services;*
  - (b) *integrates with and supports a quality compact urban form;*
  - (c) *enables growth;*

- (d) *avoids, remedies or mitigates adverse effects on the quality of the environment and amenity values and the health and safety of people and communities; ...*

### *B3.3.2. Policies*

#### *Managing transport infrastructure*

- (1) *Enable the effective, efficient and safe development, operation, maintenance and upgrading of all modes of an integrated transport system.....*
- (3) *Identify and protect existing and future areas and routes for developing Auckland's transport infrastructure.*
- (4) *Ensure that transport infrastructure is designed, located and managed to:*
  - (a) *integrate with adjacent land uses, taking into account their current and planned use, intensity, scale, character and amenity; ....*
- (6) *Require activities sensitive to adverse effects from the operation of transport infrastructure to be located or designed to avoid, remedy or mitigate those potential adverse effects.*
- (7) *Avoid, remedy or mitigate the adverse effects associated with the construction or operation of transport infrastructure on the environment and on community health and safety.*

The RPS also requires that the rezoning of future urban zoned land for urbanisation follow the structure plan guidelines in Appendix 1. These set out that a structure plan is to, in this context identify, investigate and address:

*The location and protection of infrastructure and management of reverse sensitivity effects on infrastructure from subdivision, use and development.*

*The location and protection of use and development and management of reverse sensitivity effects on use and development.*

### District Plan

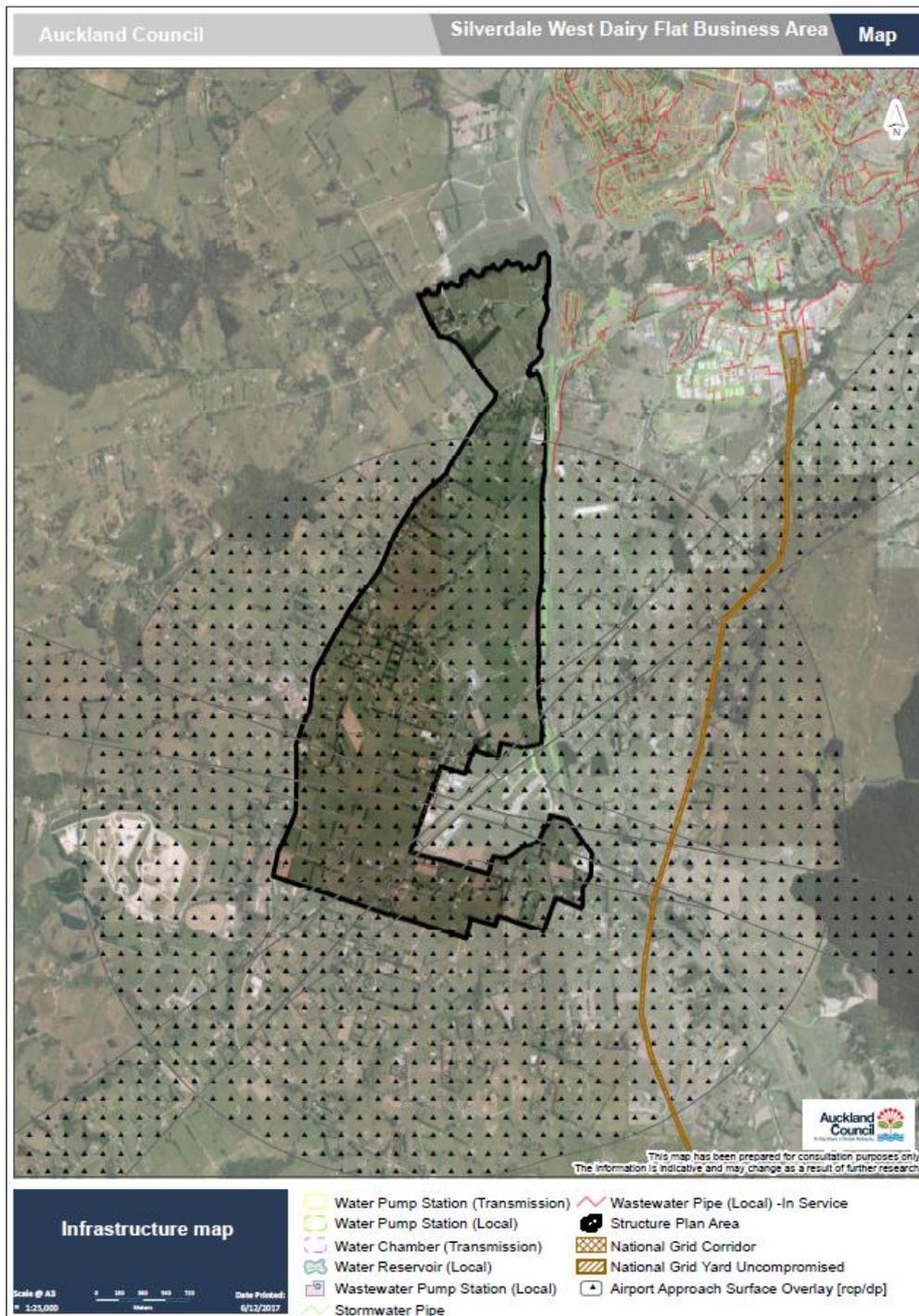
In the district plan the airport is zoned Special Purpose Airport and Airfields and it is also covered by the North Shore Airport Precinct.

The precinct provides for the continued operation of the airport, including aircraft operations, maintenance and repair of aircraft, and limited provision for commercial and industrial activities associated with aviation.

The AUPOP also includes an Airport Approach Surface Overlay and Aircraft Noise Overlay both of which affect the structure plan area. These are shown respectively in Figures 2 and 3.

The purpose of the Airport Approach Surface Overlay is to manage obstructions such as buildings and trees, so that they do not protrude into the airport approach surfaces. As can be seen the Airport Approach Surface Overlay covers most of the structure plan area.

**Figure 2 Airport Approach Surface Overlay**



The objectives and policies of the Airport Approach Surface Overlay are:

#### D23.2. Objective

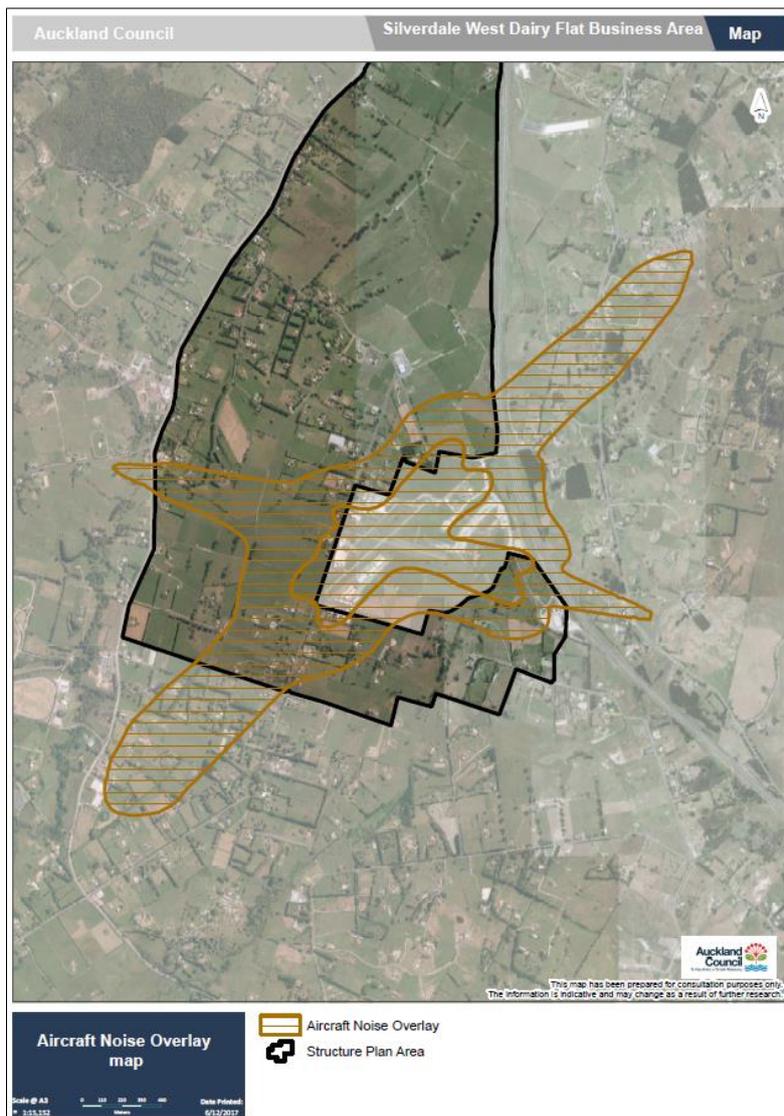
- (1) Obstructions that compromise the safe and efficient operation of airports or airfields are prevented from protruding into airport approach surfaces or airspace restriction designations as shown on the planning maps.

D23.3. Policies

- (1) Allow the removal or topping of trees that protrude into airport approach surfaces and airport restriction designations.
- (2) Control development through height restrictions within the airport approach surfaces and airspace restriction designations shown on the planning maps.
- (3) Prevent the height of buildings and trees and other obstructions from adversely affecting the safety and efficiency of airports or the ability of airports to function at present levels.

The purpose of the Aircraft Noise Overlay is to manage the subdivision of land and location of activities sensitive to aircraft noise in areas of high cumulative noise around the region’s airports and airfields, so that their continued operation is not compromised and reverse sensitivity issues are addressed.

**Figure 3 Aircraft Noise Overlay**



The Aircraft Noise Overlay controls activities sensitive to aircraft noise within specified noise contours. The 65dB Ldn contour is closest to the airport and essentially activities sensitive to aircraft noise are prohibited. Between the 65dB Ldn contour and the 55dB Ldn contour, activities sensitive to aircraft noise are restricted discretionary activities requiring a resource consent. Such activities must provide sound attenuation and related ventilation and/or air conditioning measures to ensure the internal noise environment of habitable rooms does not exceed a maximum noise level of 40dB Ldn.

The Aircraft Noise Overlay applies to a much smaller area than the Airport Approach Surface Overlay. The outer contour, 55dB Ldn, covers most of the southern part of the Postman Road area and extends to the south west to part of the Future Urban zone around Blackbridge Road. The 65dB Ldn contour affects very little of the structure plan area and is largely confined to the North Shore Airport Precinct and the Dairy Flat Precinct to the east of the airport (see Figure 3).

The objectives and policies of the Aircraft Noise Overlay are:

#### *D24.2. Objectives*

- (1) Airports and airfields are protected from reverse sensitivity effects.*
- (2) The adverse effects of aircraft noise on residential and other activities sensitive to aircraft noise are avoided, remedied or mitigated.*

#### *D24.3. Policies*

- (1) Avoid the establishment of new activities sensitive to aircraft noise (except tertiary education facilities) within the 65dB Ldn noise contour in the Aircraft Noise Overlay.*
- (2) Avoid the establishment of new tertiary education facilities and additions or alterations to existing activities sensitive to aircraft noise (other than existing dwellings) within the 65dB Ldn noise contour in the Aircraft Noise Overlay unless all habitable rooms and all learning, amenity and recreation spaces on site are located inside buildings and achieve an internal noise environment of 40dB Ldn.*
- (3) Avoid establishing residential and other activities sensitive to aircraft noise at:
  - (a) airports/airfields except for Auckland International Airport: within the area between the 55dB Ldn and 65dB Ldn noise contours, unless the effects can be adequately remedied or mitigated through restrictions on the numbers of people to be accommodated through zoning and density mechanisms and the acoustic treatment (including mechanical ventilation) of buildings containing activities sensitive to aircraft noise excluding land designated for defence purposes;...**

Activities sensitive to aircraft noise are defined in the AUPOP as:

*Any dwellings, boarding houses, marae, papakāinga, integrated residential development, retirement villages, supported residential care, care centres, education facilities, tertiary education facilities, hospitals, and healthcare facilities with an overnight stay facility.*

### 3.3 Civil Aviation Act 1990

The Civil Aviation Act 1990 and Civil Aviation Rules set out specific requirements for the operation of aircraft, airport design, airspace management and safety.

The Civil Aviation Rules address a range of aviation matters and include specific rules about the operation of aerodromes which are set out in Rule 139. This addresses two specific requirements relating to land use which are Obstacle Limitation Surfaces and Wildlife Hazard Management.

Obstacle Limitation Surfaces for the aerodrome are defined surfaces in the airspace above and adjacent to the aerodrome. These surfaces should be free of obstacles and subject to control such as the establishment of zones, where the erection of buildings, masts and so on, are prohibited. These obstacle limitation surfaces are necessary to enable aircraft to maintain a satisfactory level of safety while manoeuvring at low altitude in the vicinity of the aerodrome. The district plan Airport Approach Surface Overlay is designed to meet this requirement.

In relation to Wildlife Hazard Management, an aerodrome operator must establish an environmental management programme to minimise or eliminate any wildlife hazard that presents a hazard to aircraft operations at their aerodrome in areas within their authority. The management of wildlife, especially birds, is critical for aircraft operational safety. Bird strikes put the lives of aircraft crew members and their passengers at risk.

In this context stormwater ponds are the main potential source of wildlife hazard.

The Civil Aviation Authority has produced a document “Guidance material for land use at or near aerodromes”, June 2008. This suggests to local authorities that zoning of the area surrounding airports should be such that it is compatible with aircraft operations, and does not jeopardise the safety of persons or property within the vicinity of the airport. The guidance refers to runway protection zones used in the United States and these limit dwellings and places which result in the gathering of people, such as schools and churches. However, no rules have been put forward to date to constrain land use in this way<sup>1</sup>.

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<sup>1</sup> Statement of Rebuttal Evidence of Eric Morgan for Lakes Golf Course Limited and High Green Limited Unitary Plan Hearings Topic 016 RUB North/West 22 December 2015.

## 4 Constraints and opportunities

This section summarises the constraints and opportunities in relation to the airport and the structure plan area.

### 4.1 Constraints

- Reverse sensitivity noise effects on the airport.
- Noise effects on the structure plan area.
- Safety issues for aircraft and the surrounding land uses.
- Lack of certainty about airport expansion plans.

### 4.2 Opportunities

- Business land use can address some of the reverse sensitivity effects on the airport, noise, safety.
- Build an airport related business hub.

### 4.3 Information gaps

Clarification of the certainty of the Aero Club's future expansion plans would assist in the preparation of the structure plan.

## 5 Conclusion

This report has considered the existing information and previous planning relevant to the North Shore Airport and the Silverdale West Dairy Flat Business Area structure plan. It draws on existing reports and no additional work has been carried out at this stage.

The North Shore Aero Club is concerned about development around the airport for safety and reverse sensitivity reasons arising from noise, particularly for residential and other noise sensitive activities.

The identification of business land around the airport in the FULSS is to help mitigate reverse sensitivity effects on the airport. The detailed planning for urban development of this land through the structure plan process therefore needs to consider the effects on the airport.

## 6 Reference

Civil Aviation Authority of

New Zealand June 2008 Guidance Material for land use at or near aerodromes

Lakes Golf Course Ltd Statement of Rebuttal Evidence of Eric Morgan for Lakes Golf Course Limited and High Green Limited, 22 December 2015, Unitary Plan Hearings Topic 016 RUB North/West.

North Shore Aero Club Statement of Evidence of Daryl Gillet for North Shore Aero Club, 27 November 2015 Unitary Plan Hearings Topic 016 RUB North/West

North Shore Aero Club Statement of Evidence of David Park for North Shore Aero Club, 27 November 2015 Unitary Plan Hearings Topic 016 RUB North/West

North Shore Aero Club Statement of Evidence of Joe Smith for North Shore Aero Club, 27 November 2015 Unitary Plan Hearings Topic 016 RUB North/West

North Shore Aero Club Statement of Evidence of Kaaren Rosser for North Shore Aero Club, 27 November 2015 Unitary Plan Hearings Topic 016 RUB North/West

North Shore Aero Club Submission on the Future Urban Land Supply Strategy Refresh, 24 April 2017

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