



Thames Airfield
Master Plan
Final Report

August 2019



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01. Background

1.1 Introduction

Context

Airbiz was commissioned by the Thames-Coromandel District Council (TCDC) to update the 2005 Master Plan and provide the Council and the community with an updated vision for Thames Airfield, formally known as Sir Keith Park Memorial Airfield.

In development of the Master Plan TCDC advised that work was underway in parallel to update the existing designation of land in and around the airfield, this would allow some forms of limited aviation related accommodation and other activities associated with the use of the airfield that are currently not within the purpose of the designation. This Master Plan update therefore aims to be a guiding document for the alteration to the current designation of Sir Keith Park Memorial Airfield being undertaken by TCDC. During the update process three developments were proposed by TCDC, to be made along with the designation change application:

- Cluster of aircraft hangars parallel to the cross runway towards the RWY 23 Threshold – suggested by the airfield users themselves
- Residential accommodation of up to 20 dwellings (one or two bedroom) associated with airfield activities (i.e. aircraft hangars connected to dwellings)
- A potential site for future recreation in the South East corner of the airfield

The scope of this Master Plan update includes:

- Reviewing the Civil Aviation regulatory framework under which the airfield currently operates, and how that could change in the future
- Advice on types and scale of practical and realistic future airfield activities, both aeronautical and non-aeronautical
- Update key land use planning elements such as Obstacle Limitation Surfaces (OLS), Aircraft Noise implications and Building Induced Wake Effect in relation to suggested developments
- Update the airfield Master Plan layout, allocating spaces for various land uses and activities (aeronautical and non-aeronautical), and indicating primary infrastructure elements such as runways, taxiways, aprons, main roads and existing facilities.

- Refresh the Master Plan

Objective

Broadly speaking, the objectives of this Master Plan update are to:

- Refresh the existing Master Plan to align with the current regulatory framework, key Council objectives and generally update the plan. Typically, master plans are refreshed every 5 years, the last Thames Airport Master Plan was prepared in 2005.
- Enable the development of new facilities with consideration given to protecting for the future development and operation of the key aeronautical facilities, in order to meet TCDC community objectives for the use of the airfield.
- Align the plan with proposed Master Plans for a cluster of aircraft hangars with associated residential accommodation, as well as a potential site for future recreation.

Approach

The approach followed was:

- Confirming key issues, changes and influences that should be addressed in the updated Master Plan through a project Inception and vision meeting
- Review the documentation of the current airfield infrastructure, activities, regulatory and planning regimes as well as constraints and opportunities.
- Update the airfield Master Plan to consider and enable the identified commercial aeronautical opportunities.
- Refresh of all relevant sections of the 2005 Master Plan to address the outcomes above.

1.2 Airfield Location

Sir Keith Park Memorial Airfield is situated on the western side of the Coromandel Peninsula within the Thames Community Ward of the Thames-Coromandel District. The airfield lies just to the south of Thames Township on the Ngati Maru Highway. It is bordered by the Waihou River on its western flank and State Highway 25 to the east (Ngati Maru Highway), Rhodes Park and a rugby field to the north and oxidation ponds to the south. The airfield is owned by the Thames-Coromandel District Council. The airfield operates on the periphery of Thames Township and also near rural zones with farming in the larger surrounding areas. The airfield has some commercial activity in the form of top-dressing operations. The airfield is one of several small airfields on the Coromandel Peninsula servicing the needs of the general aviation community throughout the region. The area of land occupied by the airfield is viewed to be prime land in terms of district development as the natural constraints of the land force Thames Township to develop in a southern direction with the airfield being part of the closest 'non-residential' land to the town.



FIGURE 01-1 THAMES AIRFIELD



FIGURE 01-2 THAMES

02. Aviation

2.1 Regional



FIGURE 02-1 COROMANDEL AREA AIRFIELD
(Source: © map: dreamland.co.nz)

Aviation activity within the Coromandel area is confined by and large to general aviation with one exception being Sunair who fly a scheduled passenger service to Whitianga airfield (privately owned). The closest trunk routes for larger scheduled services fly out of Auckland Airport to the north-west, Hamilton to the south and Tauranga to the south-east. Due to the proximity of the airfield to other major airports the likelihood of scheduled air services at the airfield is very low - more likely services would be possible charter services. This, coupled with the small population of the district, means the airfield is likely to continue to be used exclusively for general aviation purposes. Further to this, the airfield sees a reasonable amount of itinerant aircraft enroute from the various other small airfields on and around the Coromandel Peninsula, illustrated in Figure 2.1 below. During events at certain times of the year the airport can host a significant number of general aviation aircraft.

2.2.1 Facilities

Runway characteristics are listed below:

Runway	Dimensions (m)	Surface
05 -23	680 x 34	Grass
14 -32	980 x 34	Grass

TABLE 02-1 RUNWAY CHARACTERISTICS

Aviation facilities include:

- 4-5 hangars
- Hauraki Aero Club
- Glider storage
- Fee collection box
- Fuel pumps and fuel tanks (fuel is Z Energy, Jet A1, Avgas 100, access via a Z Energy Aviation Card)
- Sky diving landing zone
- Non-aviation facilities include Thames Clay Target Club shooting range on the western side of the airfield
- Navigational aids include 5 windsocks

2.2.2 Activity

No recorded movement data is available for the airfield. Estimates put busy day movements at approximately 20 to 25 movements per day with a busy hour of approximately 5 to 10 movements. These numbers can swell by approximately 50% over peak summer periods when the region is experiencing high numbers of vacationers.

General aviation within New Zealand generally grows at an average of 1% per annum.

The present infrastructure and configuration of Sir Keith Park Memorial Airfield provides sufficient capacity to accommodate such an increase in activity. As many of the movements generated are from itinerant aircraft, the only true capacity issues Thames airfield must address are the areas available to aircraft parking and the capacity of the fuel supply. However, if the airfield is to develop into a profitable part of the community the attraction of aviation and non-aviation related business to the airfield may see an increase in movements above the 1% growth rate. This has some potential to place pressures on the capacity of existing facilities.

03. Planning Framework

Establishing development options for Sir Keith Park Memorial Airfield requires assessment of the various regulatory frameworks that govern the airfield's development and operation, the compliance of integrating proposed developments within the airfield and other issues that will affect the planning process.

3.1 Aircraft Assessment

Crucial to the development of any airfield is an assessment of the types and dynamics of the aircraft that would usually utilise the airfield. The aircraft types currently in use are almost entirely single engine Code A (refer Figure 3.6) aircraft such as the Piper PA18 and the Cessna 182. Charter companies in the area such as Sunair operates the Code A twin engine types such as the Piper PA23 Aztec.

The largest realistic aircraft size that could be expected to utilise the airfield in the immediate planning period are Code B aircraft such as the Cessna Caravan (13 seats) from Barrier Air which used to operate at the airfield some years ago. Providing for Code B aircraft in planning decisions would still allow for significant growth of the airfield's target market and would not limit the ability for scheduled passenger services to utilise the airfield should the need ever arise.

In order protect for this ability to have scheduled services, the airfield must be planned in accordance with specific set of rules under the Civil Aviation Act 1990 – Part 139 and AC 139-6 which are reviewed in depth in the next section of this report.

Reference has been made in the current Airfield Designation (April 2010 and Certificate of Compliance (2008) to the use of the airfield by aircraft with a seating capacity of 30+. This size of aircraft generally falls into Code C (refer Figure 3.4) aircraft and it is seen to be unrealistic to plan to the standards aligned with Code C aircraft and hence scheduled services, as this would require a significant runway extension and sealing, additional land (to the north?) and a much wider separation of facilities from the runways. The proximity of Thames to main cities such as Auckland, Hamilton and Tauranga restrict the viability of a scheduled service operating. Generally scheduled services will not fly to a location within 2½ hrs of a main centre unless a significant market is developed. In relation to Thames this could be a burgeoning tourism industry or a large industrial/mining development.

3.2 Civil Aviation Act 1990 – Part 139: Aerodromes Certification, Operation and Use

Under the Civil Aviation Act 1990, airfields must adhere to a set of rules. Specific to Thames is Part 139: Aerodromes Certification, Operation and Use. The parameters set out under this Part will produce an Airport Reference Code. As stated by Part 139 *‘the intent of the reference code is to provide a simple method for inter-relating the numerous specifications concerning the characteristics of aerodromes so as to provide a series of aerodrome facilities that are suitable for the aeroplanes that are intended to operate at the aerodrome.’*

There are two options in choosing the application of Part 139 to the airfield: AC139-6 or AC139-7. The two options provide planning parameters based on the projected types of aircraft utilising the airfield. As defined in Section 3.1.6 these types are Code A and Code B aircraft. AC139-7 refers to Aeroplanes less than 5700kg MCTOW Non-Air Transport Operations and AC139-6 refers to Aeroplanes over 5700kg MCTOW and ALL Aeroplanes Conducting Air Transport Operations.

After analysis of both Advisory Circulars (AC), it is recommended that TCDC adopt AC139-6 for the airfield. Whilst Thames may not currently service aircraft over the 5700kg threshold or Aeroplanes Conducting Air Transport Operations it is prudent for planning proposes that the standard allowing for maximum realistic future development be adopted as to not limit any future realistic growth options that the Council may choose to pursue. Protecting for an opportunity for ‘Air Transport Operations’ or scheduled/charter services is considered appropriate for this Master Plan.

Key issues from a planning perspective are:

- Airfield Certification
- Airfield Reference Codes
- Obstacle Limitation Surfaces

3.2.1 Airfield Certification

Sir Keith Park Memorial Airfield currently operates as an uncertificated aerodrome. The Civil Aviation Authority specifies under Part 139.5 (a) that *‘No person shall operate an aerodrome serving any aeroplane having a certified seating capacity of more than 30 passengers that is engaged in regular air transport operations except under the authority of, and in accordance with the provisions of, an aerodrome operating certificate issued for that aerodrome under this Part.’* At current and projected levels of movements and aircraft types does not require

certification. However, should development and growth proceed at rates outside projections the airfield may require certification. This should be kept in mind in the future, but it is not seen as a likely event.

3.2.2 Airfield Reference Codes

Specifications under AC139-6 (specific to Sir Keith Park Memorial Airfield) relate to the planning parameters of the runways and taxiways. The decision to apply AC139-6 to the airfield allows planning for larger aircraft and hence does not restrict future development options. Specifically, the use of AC139-6 provides definitive parameters for the runway width, the runway and taxiway centreline, the centreline of the taxiway to an object and the runway strip width. Design of Runway 14-32 has followed parameters under this Part and hence further development should also follow this.

By applying AC139-6 to the airfield it is possible to adopt a code for both Runway 14-32 and Runway 05-23. Figure 3.1 below shows the parameters that are applied to each code. In reference to Runway 14-32 it is applicable to apply Code 2, for a runway over 800m but not over 1200m and Code B to accommodate aircraft with a wingspan of 15m up to but not including 24m. For Runway 05-23, Code 1 is applicable as the runway is under 800m and also Code B as for Runway 14-32.

Therefore, it is recommended:

- TCDC adopts AC139-6 and design as per the requirements under this for the airfield
- Runway 14-32 is to be designated Code 2B non-instrument
- Runway 05-23 is to be designated Code 1B non-instrument.

Code element 1		Code element 2		
Code number (1)	Aeroplane reference field length (2)	Code letter (3)	Wing span (4)	Outer main gear wheel; span ^a (5)
1	Less than 800m	A	Up to but not including 15m	Up to but not including 4.5m
2	800m up to but not including 1200m	B	15m up to but not including 24m	4.5m up to but not including 6m
3	1200m up to but not including 1800m	C	24m up to but not including 36m	6m up to but not including 9m
4	1800m and over	D	36m up to but not including 52m	9m up to but not including 14m
		E	52m up to but not including 65m	9m up to but not including 14m

^a Distance between the outside edges of the main gear wheels

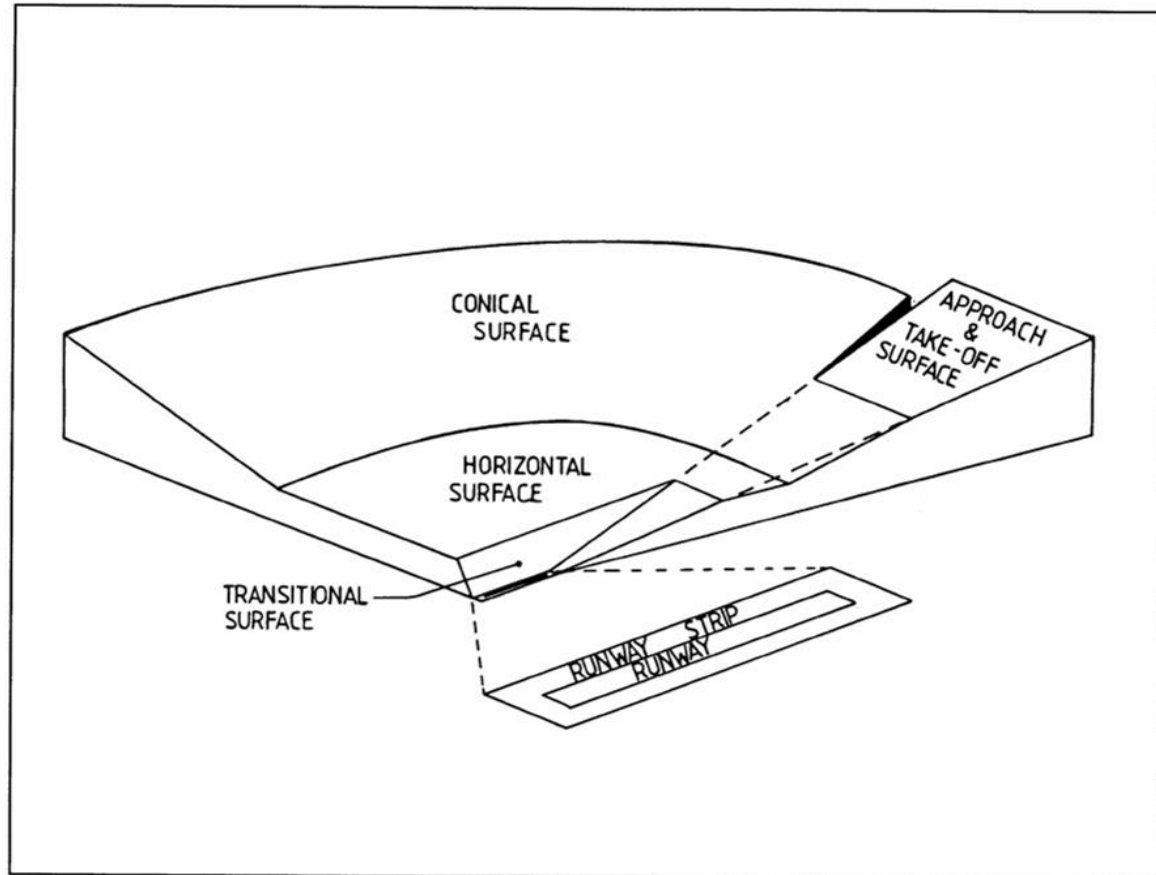
FIGURE 3-1 AIRFIELD REFERENCE CODE (Source: CAANZ AC139-6)

3.2.3 Obstacle Limitation Surfaces (OLS)

The Obstacle Limitation Surfaces (OLS) are defined surfaces in the airspace adjacent to and above the airfield. The objectives of the OLS are to define the airspace around the airfield to be maintained obstacle free. The requirements of the OLS are based on the runway classification. Provision for this specification has been made in the Proposed District Plan under Section 28.3. The OLS in Figure 3.2 comprises:

- Conical surface – a surface sloping upwards and outwards from the inner horizontal surface
- Inner horizontal surface – a surface located in a horizontal plane above an airfield (45 metres above the airfield elevation datum)
- Approach surface – an inclined diverging approach surface located within a defined area called the approach fan
- Transitional surface – a complex surface originating from the edge of strip and approach slopes, projecting upwards and outwards to the inner horizontal surface
- Take-off climb surface – an inclined diverging take-off surface located within a defined area called the take-off fan

Figure 4-1. Obstacle limitation surfaces



139-06A

FIGURE 3-2 OBSTACLE LIMITATION SURFACES (Source : CAANZ AC139-6)

It is recommended that the specifics of the OLS in relation to Sir Keith Park Memorial Airfield be re-evaluated as the District Plan maps may not truly represent the current airfield layout and therefore the fans shown in planning maps may not be accurate.

Airbiz has prepared a high-level assessment of OLS, this is included in Section 4 Master Plan.

3.2.4 Building Induced Wake Turbulence

The location of potential commercial/recreational zones close to runway thresholds means that buildings developed could have an effect on aircraft arriving and departing on the runway by creating wind shear.

Planning guidelines for wind shear assessment exist in Australia and we have reviewed that guidance material (termed Building Induced Wake Turbulence) and highlight that the guideline notes:

→ ‘that a wind consultant needs to provide guidance on the acceptability or otherwise of a proposed building development in relation to the potential wake disturbance by the building on the runway’.

The guidelines also state that:

→ ‘Any building satisfying the Schiphol 1 in 35 height rule⁽¹⁾ is ‘automatically acceptable’.

The 1:35 surface is illustrated over the airfield in Section 4 Master Plan.

(1) The Schiphol Rule is a planning guideline which arose from the detailed studies of building induced windshear undertaken at Amsterdam’s Schiphol Airport.

3.3 Airfield Land Availability

The area of land available for Sir Keith Park Memorial Airfield to develop is generally confined within the existing airport boundary. Figure 3.3 demonstrates the approximate airfield boundary and runway locations. The area within the dotted red line is leased to airfield users and as such is available for development in line with provisions within the District Plan, with the exception of a small portion of land leased out to the Thames Clay Target Club on the western fringe.

The primary area available for development is the north-eastern quadrant of the airfield, it currently houses all aviation facilities, is close to the road and has all current utility infrastructure (power/water) running through it. Most of the north-western quadrant is leased by the Thames Target Club and hence is unavailable for intensive development.

There also exists a pocket of land directly to the north of the northern end of Runway 14/32 which is available for use. Council has rendered this area part of Rhodes Park and hence the area can be reserved as a long-term protection zone for a runway extension (not proposed in this Master Plan), with no intensive development in the meantime.

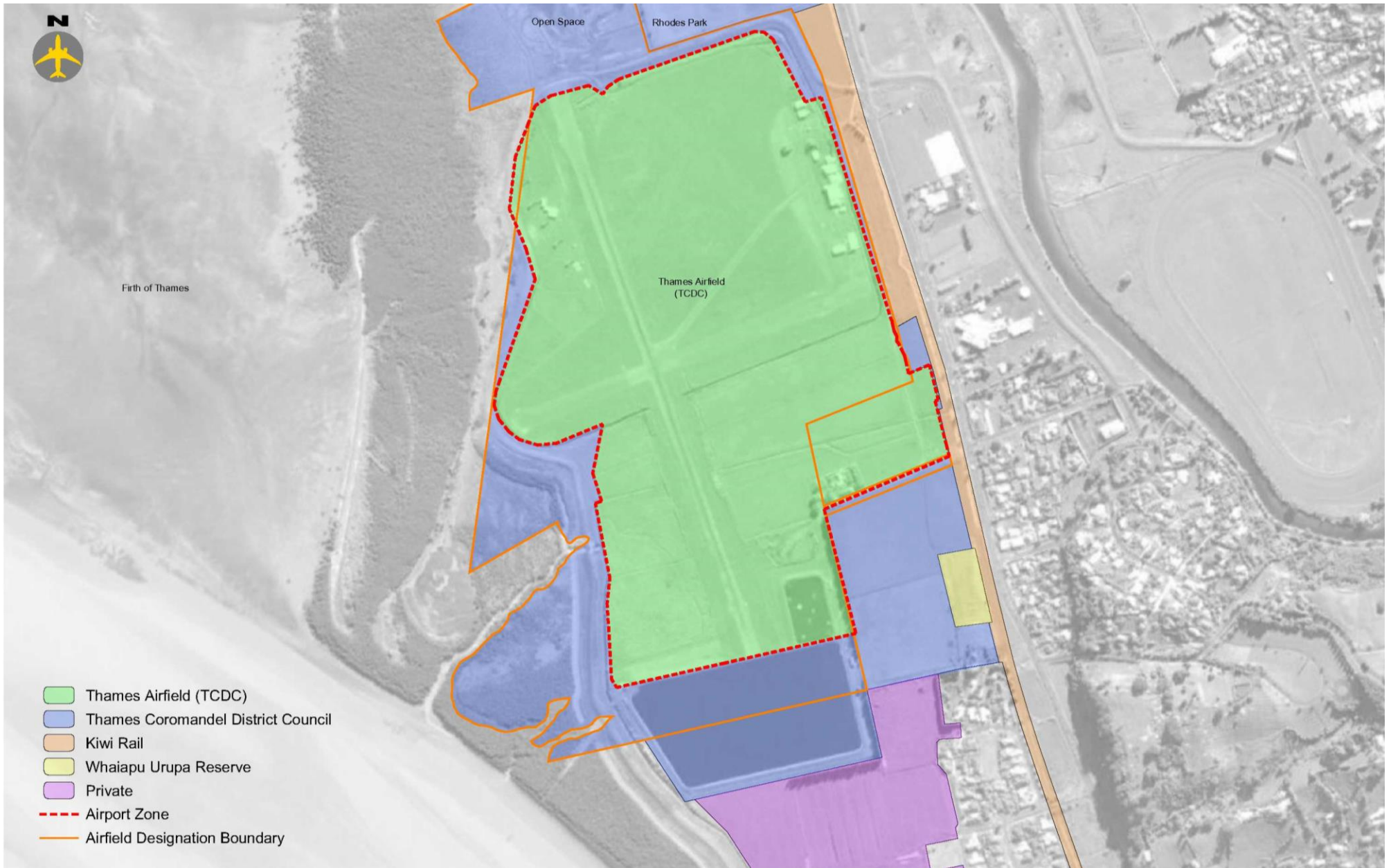


FIGURE 3-3 THAMES LAND OWNERSHIP PLAN

3.4 Planning Recommendations

Planning recommendations for Sir Keith Park Memorial Airfield are as follows and reflect realistic future development options.

- Plan future airfield development to standards applicable under the CAA Rule AC 139-6 (Aircraft over 5700kg MCTOW and All Aeroplanes Conducting Air Transport Operations).
- Adopt Code 2B for Runway 14-32 and Code 1B for Runway 05-23.
- Investigate possible land use/sharing agreements between the Council, the airfield and relevant land owners/users around the airfield.
- Review utility infrastructure such as sewerage and water capacity and improve to accommodate future development.
- Establish management procedures to maintain obstacles heights inside adopted obstacle limitation surface requirements, in particular the trees and power lines off the eastern end of Runway 05-23.
- Review financial management.

04. Master Plan

This section presents the Sir Keith Park Memorial Airfield Master Plan and sets out the key parameters for aeronautical infrastructure (runways/taxiways) and land uses/development options for areas of the airfield not specifically required for a core aeronautical function.

4.1 Aeronautical Infrastructure

The following describes the key parameters that define aeronautical infrastructure elements of the Master Plan shown on figure 4-4.

RUNWAYS

Runway 14-32

A small change to the main runway 14-32 is proposed to ensure the strip is contained within the airport boundary, current plans have the strip sitting outside the airport boundary at the Runway 14 end and in the pond at the Runway 34 end. No changes are proposed to the existing runway thresholds. The Master plan is based on the following parameters:

- Strip width 80m
- Runway Dimensions 980m x 34m (as existing)
- Runway Code 2B
- Runway surface Grass

Runway 05-23

No changes are proposed to the cross runway 05-23. The Master Plan is based on the following parameters:

- Strip Width 60m
- Runway Dimensions 680m x 34m (as existing)
- Runway Code 1B
- Runway Surface Grass

TAXIWAYS

Taxiway A (proposed main taxiway running parallel to Runway 14-32)

- Aircraft Capability Code B
- Taxiway Width 11m

Taxiway B (existing – linking runways to Terminal / Club Room Precinct)

- Aircraft Capability Code A
- Taxiway Width 7.5m

Taxilane C (proposed to service a potential residential hangar development)

- Aircraft Capability Code A
- Taxiway Width 7.5m minimum

APRON

Apron A (running parallel to the main runway)

The Apron A area is provided to enable aircraft parking close to the runway. The area could be used as part of a hangar development zone or for a commercial operator.

- Aircraft Capability Code B

Apron B (adjacent the existing Terminal/Club Room Precinct)

The Apron B area is provided to enable aircraft parking close to existing aeronautical infrastructure.

- Aircraft Capability Code A

Apron C

The Apron C area is provided to enable additional aircraft parking capacity for small aircraft during events. Aircraft access to this area would need to be around the western end of existing drain from the main runway.

- Aircraft Capability As required

Apron D

The Apron D area is provided in front of the potential residential hangar zone.

- Aircraft Capability Code A

4.2 Land use / Development Options

PRECINCT USE SUMMARY

Terminal/Club Room Precinct and Hangar/Aviation Support Precinct

Development within this area is suited to accommodate any mix of development options described. The most compatible use of available land would see the inclusion of the current aviation facilities (Aero Club, fuel pump, hangars, gliding facilities) and light industrial, retail or commercial development. Noting the existing investment in infrastructure in this zone it is proposed that the area continues to function as the core area for aviation support facilities aligned to the existing operation and use of the airfield.

North Eastern Airfield Quadrant

Land use in this area is aligned to the provision of or protection for the following uses:

- Small hangar development adjacent Runway 05-23
- Hangar development area adjacent Apron A
- Commercial development zone adjacent the hangar area
- Residential hangars/dwellings
- Additional commercial zone adjacent the eastern end of the Residential hangars/dwellings with proximity to the State Highway

North Western Airfield Quadrant

This area is proposed to be maintained for its current ancillary use (existing 'Thames Clay Target Club' site). The area is linked to the North Eastern Precinct via an existing airport road around the northern end of the main runway.

South Western Airfield Quadrant

Land use in this area is proposed as Commercial, once again, this could include one of the development options discussed below or a drop zone for parachutes, or if there were opportunities to leverage the interface with the Firth of Thames. The area is linked to the North Western Precinct via an airport road around the western end of the cross runway and to the South Eastern Airfield area via an airport road at the southern end of the main runway.

South Eastern Airfield Quadrant

Apart from the Apron Area D discussed earlier this area is proposed to provide for future Commercial/Recreational uses. The proximity to the State Highway and undeveloped state of the site make it a prime area for the development of larger scale facilities.

DEVELOPMENT OPTIONS

During the course of this Master Plan update and the 2005 Master Plan a number of development options for the airfield were identified in consultation with TCDC, these are:

- Residential air park
- Light industry/retail/commercial
- Recreational areas
- Motel/Camping
- Charter/Scheduled Services
- Events
- Potential future recreation



FIGURE 4-1 HANGARS

01. Air Park

The development of an air park on Sir Keith Park Memorial Airfield has been proposed by the Council and various other individuals.

Internationally, air parks vary in size, amenities and structure depending on the types of aircraft operating, the surrounding population base, numbers of aviators and the financial situation of the surrounding population and projected users.

Air parks range from small grassed strips with caravans and aircraft parked outside to larger sealed strips with large lots allocated to residential living with various mixes in between. Generally, air parks gain revenue through landing charges, long term parking charges, fuel charges and the rent or sale of on-airport hangars or properties. Successful air parks have a strong on-airport community with various fundraising events, wider community involvement (possibly in the form of an air park committee) and some form of marketing strategy in line with the surrounding community's development direction and marketing plan.

An air park development at Thames could include the development of private hangars with apartments situated above, through to the development of permanent residential housing on the airfield, accompanied by a hangar and including access to taxiways. Both options could be developed by the Council and either sold off or rented out to appropriate tenants. Figures 4.1 and 4.2 demonstrate types of on-airport living potentially applicable to the airfield.



FIGURE 4-2 HANGAR LIVING/RENTING

Air park design needs reflect the appropriate planning parameters set out by AC 139-6. Provision may also be made for the accommodation of helicopters within the air park.

Critical to the success of an air park is the attraction of tenants. Numbers of facilities must be reconciled with the expected numbers of tenants before an air park is constructed, therefore it is recommended that hangar/apartments are sold or preferably leased out prior to definitive construction of the air park so as to not over accommodate for tenants. Crucial too is the reconciliation of costs in the development and running of the air park, with the rents or sale prices charged. This warrants further investigation outside the scope of this report.

Based on discussion with TCDC the Master Plan has illustrated a potential location and arrangement for residential hangars on the airfield. These are located on the north of the airfield and are serviced by a central taxilane. The layout of the area provides for a hangar with residential accommodation above and/or behind the aircraft hangar/garage. Based on discussions with TCDC the area drawn allows for up to 20 dwellings measuring approximately 42m deep x 24m wide inclusive of aircraft parking, an allowance has then been made for a landside area and road reserve backing both sides of the area.

In addition, TCDC has noted a current plan for smaller hangars running along the northern side of Runway 05-23.

The site for this development is reflected on the Master Plan drawing shown in figure 4-4.

02. Light Industry

The development of an area for light industry has also been suggested. Currently Sir Keith Park Memorial Airfield does accommodate some aviation related industry and the attraction of further industrial tenants is a viable option in terms of land use. The specific types and complexity of that industry must be carefully assessed as to not significantly impact the airfield's operations, the development of an air park or the surrounding community.

03. Retail/Commercial

A compatible land use may also be the introduction of retail or commercial facilities onto the airfield. Linked to a light industrial area the development of a larger retail or commercial facility possibly in the form of building supplies or warehouse retail, balanced with the provision of smaller retail or office facilities in the same area is a definite option for land use and airfield development.

Areas are illustrated for Future Commercial on the Master Plan drawing in figure 4-4.

04. Recreational Areas

Sir Keith Park Memorial Airfield occupies land adjacent to the coast and as such its western side is better suited to the development of recreational facilities, subject to secure fencing of the operational area. The use of the airfield by the community is important so as to retain ongoing community support and involvement. There are various options available in terms of recreational facilities and require further investigation outside the scope of this report. However, a few ideas can be put forward:

- Development of an outdoor educational playground for children educating on aircraft and possibly the coastal region
- Golf driving range, subject to limiting obstacle heights
- Slip-way for jet boating on the Waihou River or the Firth of Thames
- BMX facility
- Coastal walkway
- Aircraft viewing area
- Motor racing track

The provision of any recreational facility on the airfield must be developed alongside strict safety guidelines as to not endanger the public enjoying these facilities or the pilots using the airfield.

05. Motel and Camping

The inclusion of a motel and some form of camping facility is a possibility for the airfield. A motel has the potential to service both users of the airfield and visitors to Thames. The location of the airfield on the road into Thames may be an advantage to this type of facility. Space can also be allocated for either a campervan parking area and/or a camping facility. This is a low cost, un-intensive land use option for the airfield and may prove worthy of further investigation.

06. Future Recreation

TCDC have indicated that the potential development of an area for a future recreation use or complex. If this use was to go ahead one of the potential locations is in the south eastern quadrant of the airfield. Based on this the Master Plan has indicated a potential zone for 'Future Recreation'. The area will need to comply with OLS requirements set out earlier and consider wind shear implications discussed earlier.

07. Charter/Scheduled services

Whilst the approach taken in planning has discounted the introduction of scheduled services visiting Thames there is scope for investigation into small charter services utilising the airfield.

Realistically major scheduled service providers such as Air New Zealand and Jetstar etc. would not see Thames as a viable option for development due to reasons described earlier. It may, however, be wise to develop a relationship with local area charter services in order to promote the airfield and the district. With a host of natural resources in and around the Coromandel Peninsula the number of charter services utilising the airfield is surprisingly low.

There may also exist the possibility to develop a closer relationship with Great Barrier Airlines, Air-to-There or Sunair in terms of the introduction of a scheduled service over the summer months possibly tied to events. Some of Great Barrier Airlines smaller aircraft could utilise the new Thames runway and any future developments. Sunair currently operates serviced from Whitianga airfield to Great Barrier Island and Tauranga. Successful development generally attracts business and whilst unlikely, this option should not be completely discounted.

08. Events

Holding events at the airfield is another way to develop community interest in the airfield. Some ideas for events are:

- Free flights day
- Community fair
- School development programme
- Hot air ballooning day
- Gliding day

Holding events where the community can utilise the airfield will serve to mitigate criticisms and gain wider acceptance of the airfield as an integral and functional part of the Town.

09. Helicopters

There is the possibility of further helicopter operations at the airfield, as either a result of more commercial activities, the development of an air park or a general community need for further helicopter facilities in the region. Should further helicopter operations be introduced TCDC should consider if a submission to the CAA under the Civil Aviation Rule 157 is required to be made.

APPLICATION OF OPTIONS

Assessing and applying the development options available to TCDC for the airfield should follow specific criteria, these include:

- Complementary land-uses inside and outside the airfield boundary
- Maximum land-use without over-development
- Development within criteria prescribed under AC 139-6
- Inclusion of Council and community wants and needs

Specific criteria outside the scope of this document which need to be addressed are:

- Flooding
- Land value and pricing
- Infrastructure (sewerage, water, roads, power etc)
- Actual size and type of development facilities

It is important that the airfield, in a drive to develop, maintains focus on its current major users, itinerant aircraft and general aviation. Immediate focus could be placed on growing and marketing a relationship between the café directly across SH25 and itinerant users. The immediate aim for TCDC should be to differentiate Sir Keith Park Memorial Airfield from other facilities on the Peninsula by the provision of a unique facility which caters for the airfield's, and more importantly the Region's, main users.

Development options for the airfield are specific to a small airfield in a geographically constrained location.

Restrictions evident at Thames are:

- Limited land availability
- Small population base
- Small level of aircraft movements
- Proximity of other small airfields
- Reliance on general aviation
- Community issues with noise
- Proximity of Airports on trunk routes
- Proximity to Auckland
- Lack of destinational tourism as opposed to transitory visitation tourism

Whilst these are a negative in the pursuit of gaining larger scheduled aviation services, they can be a plus in a drive to diversify operations at the airfield and within the wider community.

The following master plan provides a framework for the development of the preceding Options in line with the criteria discussed above.

4.3 Master Plan

The following drawings present:

01. The Master Plan

02. Land Ownership

03. OLS – based on the following key criteria:

- AC139-6
- Runway 14/32 as a non-instrument reference code 2 runway
- Runway 05/23 as a non-instrument reference code 1 runway
- An aerodrome elevation datum of 3m above mean sea level (AMSL)
- Existing runway threshold locations

This OLS drawing (figure 4-6) shows that the maximum power cable height has to be approximately 7m above ground level, assuming its approximate location and ground level to be 3m AMSL. Section 3.3.3 defines further the OLS objectives and the surfaces that it comprises as per AC139-6.

04. OLS – specific to various potential development sites on the airfield

This OLS drawing (figure 4-7) shows the maximum building height ranges to be considered for the various potential development sites identified on the airfield: dwelling site, hangar site and aquatic site.

05. Building Induced Wake Turbulence 1:35 surface specific to various potential development sites on the airfield

Both figure 4-8 and section 3.3.4 details the planning guidelines followed in regard to the Building Induced Wake Turbulence.

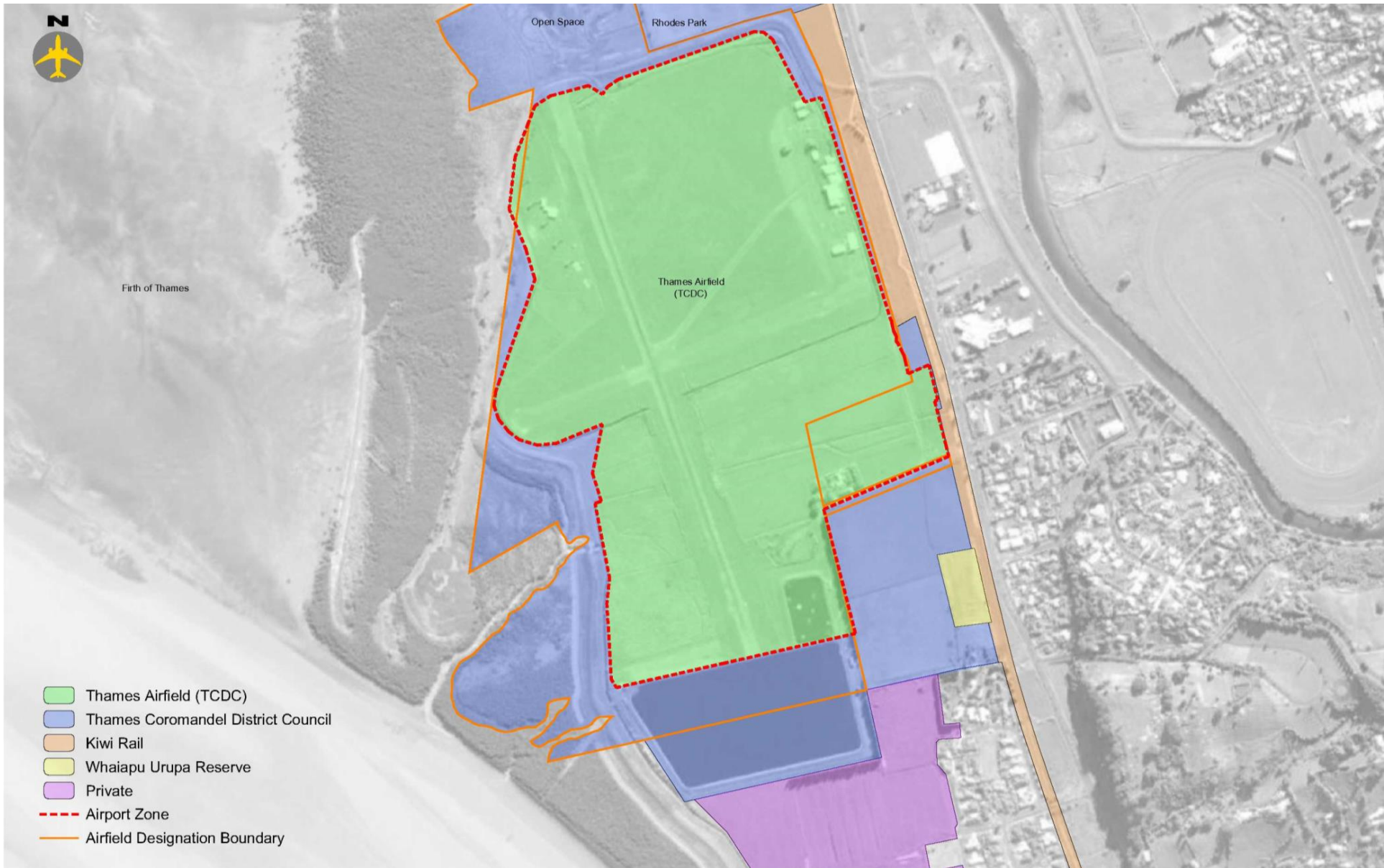


FIGURE 4-5 THAMES LAND OWNERSHIP PLAN

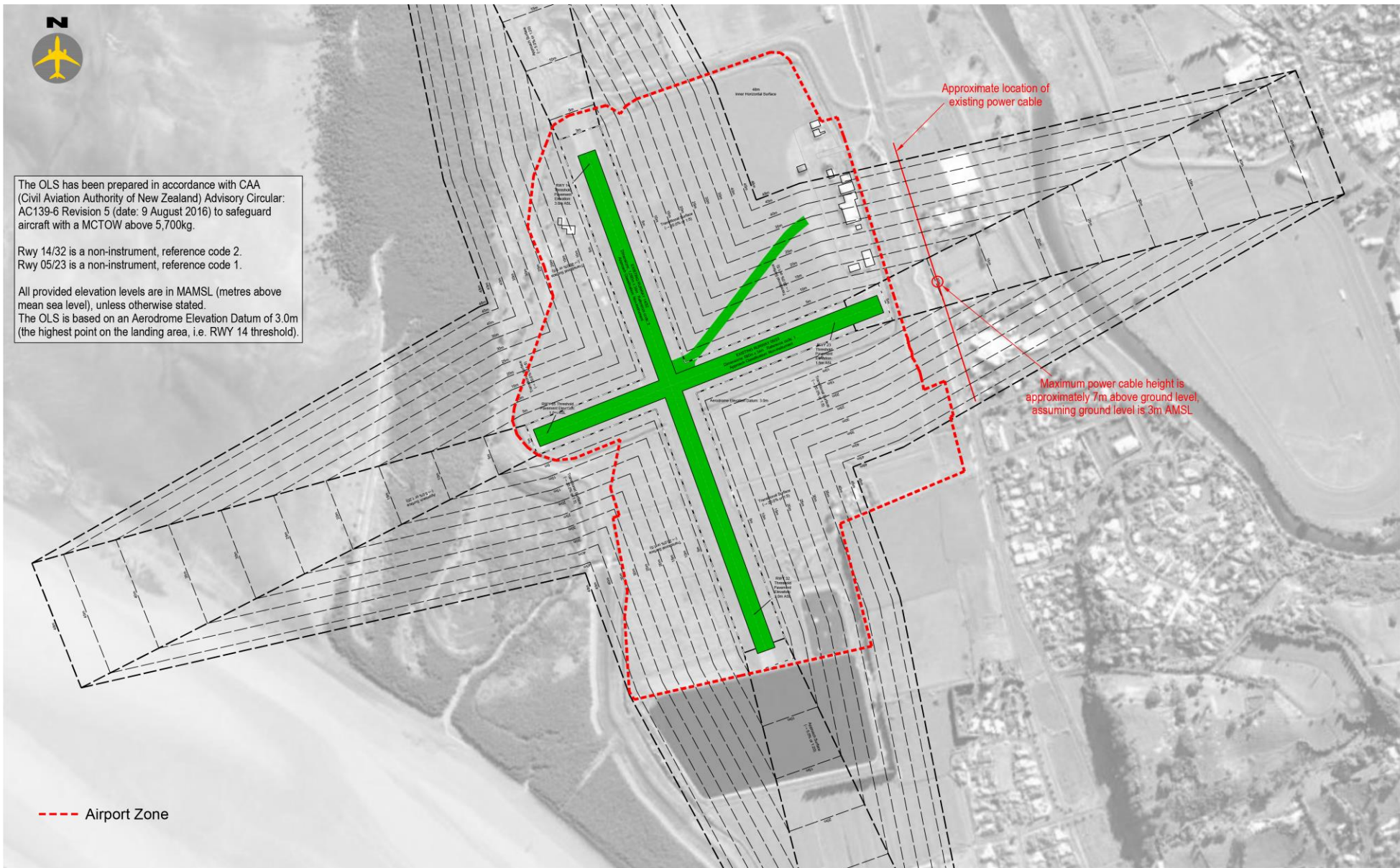


FIGURE 4-6 OLS

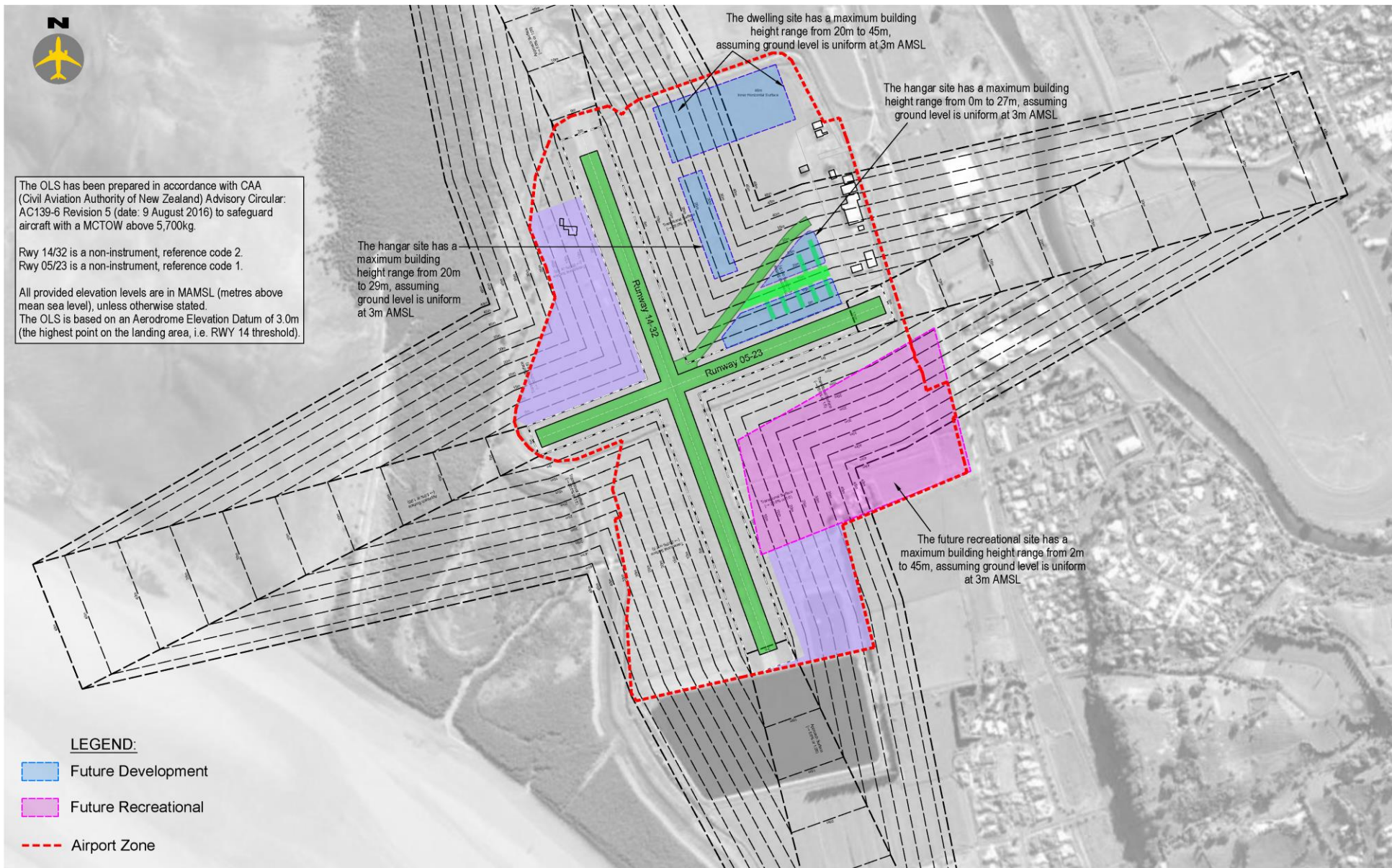


FIGURE 4-7 OLS AGAINST SPECIFIC POTENTIAL DEVELOPMENT SITES



FIGURE 4-8 WIND SHEAR AGAINST SPECIFIC POTENTIAL DEVELOPMENT SITES

4.4 Next Steps

The following steps outline a path towards the development of Sir Keith Park Memorial Airfield into a facility that will benefit both the users of the airfield, the surrounding community, the Council and the wider district in general. Community involvement should be ongoing throughout the development process.

- **Step 1** – Review and adopt development opportunities available and allocated for by the Master Plan. Finalise decisions on types, numbers and location of facilities.
- **Step 2** – Develop a concise business plan for chosen development options and the airfield.
- **Step 3** – Develop an operational and architectural plan for airfield’s development.
- **Step 4** – Develop marketing plan for airfield intertwined with the/a Thames regional marketing strategy. Place high importance on a developed airfield and the lifestyle. Develop strategy for the attraction of charter services.
- **Step 5** – Commission development of the airfield.

Review and planning for the airfield has been conducted in accordance with Council and community aspirations, current civil aviation regulatory framework and general planning practice.

It is recommended that TCDC follow the specific steps outlined to develop the airfield into a facility that will feature more prominently within both the District and the Coromandel Peninsula as a whole.

The airfield has the opportunity to develop a niche market as a General Aviation hub facility on the Peninsula catering for the high numbers of small and itinerant aircraft that visit the Peninsula’s airfields, especially during the summer months.

Initially the Council needs to address the issues outstanding in relation to the Proposed District Plan. Following this it would be advantageous to set up an airfield Committee should one not already be in place. This committee could govern any future development at the airfield. Once development has occurred it would function to ‘manage’ the facility.

Further, a significant drive by the Council to market both Thames and the airfield coinciding with the finalisation of airfield development would prove beneficial. The targeting of the summer holiday period for such a drive would gain maximum exposure to tourists and the higher numbers of aviators on the Peninsula.

Generally small airfields do not function as a profitable enterprise, usually breaking even or running at a loss. The Council should take care to weigh up all opportunities available to the airfield and develop a balance between the financial capability of the Council and intended users, Council goals and the natural environment and community, whilst attracting business that will maximise income for the airfield. If financial capabilities are ignored or unbalanced the airfield and Council could suffer in the future.