

Terms of Reference for a Feasibility Study of the Potential Development of a Regional Airport for the Bay of Plenty

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Chapter 1: Introduction

1.1 General Introduction

This document sets out the Terms of Reference (ToR) for a feasibility Study that Environment Bay of Plenty wishes to conduct on a proposed regional airport development for the Bay of Plenty Region in the North Island of New Zealand.

The document is structured as follows:

- The remainder of this section provides the background to the proposed study.
- Section 2 outlines the objectives of the study.
- Section 3 outlines the anticipated scope of works.
- Section 4 details project organisation issues.

1.2 About the Bay of Plenty

1.2.1 Location

The Bay of Plenty is located on the east coast of the North Island of New Zealand. The region takes in the full sweep of the coastline from Lottin Point in the east, to Waihi Beach in the west. On the landward side, the region is mostly bounded by the watersheds of the catchments that flow into the Bay of Plenty, including the lakes in the Rotorua district. On the ocean side, the region includes 18 offshore islands and the sea area extending out to the 12 nautical mile boundary. The area of the region is 21,740 square kilometres, comprising 12,231 square kilometres of land and 9,509 square kilometres of coastal marine area.

1.2.2 Local Government

Environment Bay of Plenty is the regional council with responsibility for the Bay of Plenty region. There are seven territorial authorities that are also part of local government in the Bay of Plenty region. They are Tauranga City Council, Western Bay of Plenty District Council, Whakatane District Council, Opotiki District Council, Kawerau District Council, Rotorua District Council (part) and Taupo District Council (part).

1.2.3 Existing Airports

The three existing airports in the Bay of Plenty region are located in Tauranga City, Rotorua District and Whakatane District, and are either directly or indirectly owned by the respective district/city councils in which they are located.

1.3 Brief Project Description

Environment Bay of Plenty wishes to commission a study into the feasibility of the development of a single regional airport to service the Bay of Plenty region.

The study currently proposed by Environment Bay of Plenty is the second stage of a three stage Regional Airport Scoping Study (RASS). Each stage of the RASS is set out below.

Regional Airport Scoping Study Process

Stage 1 (completed 2002)

Pre-Feasibility Analysis



Stage 2 (current 2004)

Benefit-Cost and Financial Feasibility Study



Stage 3 (2006+)

Detailed Implementation Plan

The RASS process is intended to determine whether the Bay of Plenty region would, at an economy wide level, benefit from the development of a single airport to service the entire region and if so, to determine at a detailed level, the feasibility of, and overall plan for, any proposed development.

Stage 1 of the RASS, a pre-feasibility study, was conducted in 2002 by McGregor & Company on behalf of Environment Bay of Plenty. The McGregor & Company report identified that the regional airport concept was worthy of more detailed consideration. The findings of the McGregor & Company report have been accepted by Environment Bay of Plenty, which now wishes to proceed to Stage 2 of the RASS – a feasibility study.

If the benefit-cost and economic analysis for proceeding with a regional airport are positive, the next stages of the RASS will include more detailed economic impact analysis and a detailed implementation plan.

1.4 Summary of Stage 1 RASS Outcomes

In 2002, Environment Bay of Plenty commissioned McGregor & Company to prepare a report on Stage 1 of the RASS.

The objectives of the Stage 1 RASS, as stated in the McGregor & Company report were:

“The objective of the study is twofold:

- *Determine the risks to regional development of the present airport infrastructure (i.e. three autonomous airports); and then (if there is a risk).*
- *Assess regional airport requirements, including the need for a single regional airport.”*

McGregor & Company issued their final report to Environment Bay of Plenty on 17 December 2002. McGregor & Company found that:

“Overall, the three airports in the Bay of Plenty region each have the capability to cater for future regional and national air transport requirements. Notwithstanding this, however, the present airport infrastructure presents risks that in our opinion are of concern to the future economic and social development of the region. These risks involve the airspace and land issues surrounding Tauranga aerodrome and airport plus the question of the need for and suitability of Rotorua as an airport to support jet aircraft operations, with and without runway extensions.”

On the basis of these risks, McGregor & Company assessed that there should be further investigation in to a single regional airport to service the Bay of Plenty region.

A copy of the McGregor & Company report is available upon request.

Environment Bay of Plenty has accepted the principal finding of the McGregor & Company report that the concept of a single regional airport for the Bay of Plenty region is worthy of further investigation. On this basis, Environment Bay of Plenty now wishes to proceed with Stage 2 of the RASS. The objectives and scope of the Stage 2 RASS are set out below.

Chapter 2: Stage 2 RASS Objectives

2.1 Objectives Overview

Environment Bay of Plenty's primary objective for Stage 2 of the RASS is to determine – at a conceptual level – the feasibility of a single regional airport for the Bay of Plenty region.

The feasibility study has three components, which will need to be carried out simultaneously:

- To undertake a cost-benefit and economic analysis for a single regional airport.
- To determine potential locations for a single regional airport.
- To assess the impact of any regional airport development on key stakeholders.

Environment Bay of Plenty's objectives for these three areas of analysis are discussed in further detail below.

2.2 Benefit Cost and Economic Analysis Objectives

The primary objective of the benefit-cost and economic analysis will be to examine the overall benefits and costs of a regional airport from a region-wide perspective. That is, will a single regional airport help Environment Bay of Plenty to achieve the Region's transportation objectives better than the current situation.

As part of this process, Environment Bay of Plenty wishes to identify all of the potential benefits and costs that could be attributed to the development of a single regional airport, as well as a range of other financial information such as a likely net present value and return on capital for such an airport.

In this sense, the benefit-cost and economic analysis is not a narrow financial feasibility study or focussed on a particular part of the Bay of Plenty region. Rather, its perspective is broad and focussed on improving economic prosperity at a regional level.

Environment Bay of Plenty anticipates that the feasibility of a single regional airport will be analysed on a marginal basis, that is, what benefits, costs and financial returns will a regional airport provide over and above a "do nothing" option (the base case) in which the aviation needs of the Bay of Plenty region are serviced by the existing airports in the region.

Further detail on anticipated benefits and costs is set out in Section 3.2 below.

2.3 **Potential Locations Objectives**

Although it is not intended that Stage 2 of the RASS will include a full site selection study, the potential location of any regional airport is critical to its ability to adequately service the geographic distribution of population and demand for aviation services in the Bay of Plenty region.

Consequently, a key objective for Environment Bay of Plenty out of Stage 2 of the RASS is to identify high-potential locations for a regional airport. Such high-potential locations are to be identified via a desk-top based analysis of various areas within the Bay of Plenty region against a set of location criteria to be developed as part of this study, in consultation with Environment Bay of Plenty and other key stakeholders. The three existing airports – Tauranga, Rotorua and Whakatane – and other possible greenfields sites should be assessed against these location criteria.

Further detail on anticipated benefits and costs are set out in Section 3.3 below.

2.4 **Stakeholder Impacts Objectives**

The third key objective for Stage 2 of the RASS is the analysis of the impact of any regional airport proposal on each of the primary council and non-council stakeholders in the proposal. The objective will be to determine whether a single regional airport can generate more benefits than costs for all stakeholders.

Further detail on anticipated benefits and costs are set out in Section 3.4 below.

Chapter 3: Scope of Work

3.1 Overview

Environment Bay of Plenty's anticipated scope of work (SOW) for Stage 2 of the RASS includes three parallel workstreams as set out below:

- Regional Airport feasibility analysis.
- Potential location identification analysis.
- Stakeholder impacts.

The anticipated scope of work for each of these workstreams is set out below.

3.2 Regional Airport Benefit-Cost and economic Analysis - SOW

The key deliverable from the benefit-cost and economic analysis will be to report on the overall net benefits and financial returns of a regional airport for the Bay of Plenty region.

The feasibility analysis will consist of a benefit-cost analysis and an economic analysis.

Environment Bay of Plenty anticipates that the benefit-cost and economic analysis will consist of the following components:

An air transport analysis;

High level concept plans for potential regional airport sites;

- Determining cost-benefit analysis parameters (project set-up).
- Identifying potential benefits.
- Identifying potential costs.
- Determining the commercial/financial feasibility of a regional airport.

3.2.1 Air Transport Analysis

To underpin the cost-benefit and economic analysis, the consultant will need to:

- (a) For the base case, forecast future regional air traffic activity and carry out an assignment of this traffic among the existing airports, based on their current limitations;

- (b) For a single regional airport, forecast future commercial, business and private aviation activity that reflects a possible changed air access scenario (facilities for larger aircraft, enhanced instrumentation, improved terminal facilities, improved road access and so on), and the possible airline reaction, in terms of routes (national and international), services and aircraft, that might result from an improved airport in the region.

3.2.2 High Level Concept Plan

To facilitate the benefit-cost and economic analysis, concept plans for a single regional airport will need to be developed. The concept plans will be based on the facilities required to meet forecast air traffic levels and to service the needs of the aviation industry and the general public that will utilise any facility.

The concept plans will highlight the number/length of runways, the associated taxiways and aircraft parking aprons, the scale of terminal facilities and the other associated facility requirements.

Although the concept plan may use generic traffic forecasting and facility requirement information, Environment Bay of Plenty anticipates that, due to the differing characteristics of potential regional airport sites, specific airport layout concepts and construction cost estimates will be required for each potential airport location. This component of the benefit-cost and economic analysis will therefore need to be undertaken simultaneously with the identification of potential airport locations.

Environment Bay of Plenty anticipates that the concept plans will be used to determine potential capital costs and operating costs for a regional airport. The concept plan can then be compared to existing/planned facilities at the sub-regional airports (excluding known developments that will be occurring at the airports prior to the development of any future regional airport) as part of the overall assessment of the additional benefit to be generated by a single regional airport.

3.2.3 BCA Set-Up

There are a number of set-up issues associated with performing benefit-cost analyses on projects of this scale and nature. Some of these set-up issues include:

- Determining a base case against which alternatives can be evaluated.
- Specifying the alternate case to be evaluated.
- Identifying the perspective from which the benefit-cost analysis is being undertaken.
- Determining the extent to which non-financial/non-market factors will be taken into consideration.

For this project, Environment Bay of Plenty propose to deal with these issues as follows:

- The base case is the continuation of the current situation, where three airports serve the Bay of Plenty region.
- The alternate case is the development of a single airport to replace the three existing airports.

- The benefit-cost analysis is to be undertaken from a region wide perspective, that is, the analysis is to identify benefit and cost impacts across the region, regardless of where these benefits and costs fall (although the incidence of benefits and costs on key sub-regional stakeholders should be identified).
- The benefit-cost analysis is to be undertaken on the basis of quantifiable, region-wide financial and economic factors.

3.2.4 Identification and Quantification of Potential Benefits

A list of the potential benefits of a regional airport is set out below. This list is not intended to be prescriptive but to provide a general guide to some of the potential benefits that may arise from the development of a single regional airport.

- **Additional Traffic** – a single regional airport may result in the generation of additional passenger and freight movements into and out of the Bay of Plenty region over and above the existing three facilities.

The potential sources of this additional traffic might include:

- Road to air modal shifts for both passengers and freight.
- Greater visitation to the region.
- Consolidation of markets creating greater incentives for new carriers to service the region.
- Potential to broaden the catchment area to include parts of Taupo, the Waikato region (e.g. Hamilton) and other surrounding areas.

It is anticipated that the air transport analysis described in section 3.2.1 above will be used to determine what, if any, additional traffic would arise from the creation of a single regional airport. This will require consultation with the aviation industry, sub-regional airports and other key stakeholders, and an assessment of international experience in similar situations.

- **Alternate Land Use for Existing Airports** – the replacement of three existing airports with a single regional airport in a central location has the potential to release some of the existing airport sites for alternate (and higher value) land uses.
- It is envisaged that this analysis will be relatively high level (i.e. conceptual) and assumption driven, taking into account the following inputs:
 - An analysis, based on consultation with stakeholders, on the extent of land to be released (i.e. whole airports or pieces);
 - Highest-and-best use analysis of real estate values; and
 - Potential site make good costs (based on discussions with management/stakeholders and review of existing documentation if any).

While the value of the existing airport land could be enhanced by further development, the analysis will be conducted on an as-is basis.

- **Operational & financial efficiency savings** – A larger single airport for the region may have a better Profit & Loss account than three single airport entities. Any such efficiency savings will need to be quantified and captured within the cost-benefit analysis using information from the financial viability assessment described below;
- **Avoided capital costs** – the development of a single regional airport could result in capital costs being avoided within the region. These capital costs could include existing airport developments or other issues such as roading upgrades that would have otherwise occurred without the development of a single regional airport;
- **Greater opportunities for aviation industry and other developments** – large airports typically attract greater levels of investment in aviation and related facilities than small airports due to market size. A single regional airport may result in the attraction of more investment in aviation industry and related developments to the Bay of Plenty region; and
- **Other factors** – There are a number of other factors that may significantly affect the viability and sustainability of a single regional airport. To the extent possible, the analysis should identify and where possible measure the social and environmental benefits associated with the project.

3.2.5 Identification & Quantification of Potential Costs

A list of the costs of a regional airport is set out below. This list is not intended to be prescriptive but to provide a general guide to some potential costs associated with a single regional airport.

- **On and Off Airport Development Costs** – the high level concept plan for a single regional airport will determine the minimum level of on-airport and off-airport facilities required to meet the forecast traffic levels. These facilities will include: runways (number, length, width, strength and so on); associated taxiways and aircraft parking aprons; required terminal areas; aviation and related support facilities; infrastructure (utilities, roads etc); landside facilities (car parks etc); off-airport roads and other infrastructure and facilities as appropriate.

The high level concept plan will be used to produce a “ball-park” estimate of capital costs, with an indication of appropriate contingencies for site issues and other factors.

- **Land acquisition costs** – the costs associated with acquisition of sufficient land for the proposed airport development, together with the foregone value of that land for other uses, need to be taken into account;
- **Airport Closure Costs** – a single regional airport may result in the closure of the existing airports. In this case, closure costs may be incurred. These may include staff redundancies, asset write-downs, tenant compensation/relocation costs and other costs associated with decommissioning facilities; and
- **Other factors** – to the extent possible, the analysis should identify and where possible measure social and environmental costs associated with the project.

3.2.6 Determining the Commercial/Financial Feasibility of a Regional Airport

In addition to the cost-benefit analysis, Environment Bay of Plenty wishes the consultant to undertake an economic analysis to determine the commercial/financial feasibility of a single regional airport relative to the three existing airports. This will involve an

assessment of whether a single regional airport would have a positive NPV and/or provide a greater return on capital than the three existing sub-regional airports.

While there will be some overlaps between this task and the benefit-cost analysis, the objective of the financial viability analysis will be to determine the financial standing of any entity created to own and operate the single regional airport.

This analysis will need to take into account:

- Operating profitability.
- Capital servicing capability.

3.3 Potential Site Identification Analysis - SOW

Although it is not intended that Stage 2 of the RASS will include a full site selection study, the potential location of any regional airport is critical to its ability to adequately service the geographic distribution of population and demand for aviation services in the Bay of Plenty region.

It is anticipated that the location identification process will be a 2-stage task.

First, a number of broad locations where a regional airport could physically be accommodated need to be identified; all these locations need to be feasible sites that could actually be developed into an airport. Environment Bay of Plenty expects that the suitability of the existing sub-regional airport sites as the possible location for the development of a single regional airport will be assessed during this stage.

Environment Bay of Plenty anticipates that these locations will need to be evaluated using broad factors, such as environmental disturbance, relative distance from population centres, physical implications for construction, and airspace compatibility. An evaluation of these sites can then be carried out to short-list the sites for a more detailed review.

Second, an evaluation of how the short-listed locations might physically accommodate an airport will need to be carried out. This evaluation will use primary siting criteria developed as part of this stage of the assignment. These primary siting criteria would be those that either determine whether the site is feasible in aeronautical and airspace operational terms, or represent major cost elements (difficult terrain/geology, presence of obstacles, significant environmental impact, relative cost of land acquisition) that will affect the inputs to a cost-benefit analysis. This second stage review of potential locations would take the siting issue to the point of generating a basis to carry out a detailed evaluation of the final short-list of sites at a later phase of the project.

As a part of this stage, it is expected that the consultants will conduct a workshop with Environment Bay of Plenty and the various council stakeholders to determine the relative importance of each of the assessment criteria (i.e. a criteria weighting system). This will allow the overall preferred sites to be identified and allow potential trade-offs to be made (e.g. can a site with much lower development cost be preferred over a site with better accessibility to all stakeholders).

It is not anticipated that any field engineering or environmental analysis will be required at this stage of the RASS. Rather, more detailed site selection studies and appropriate environmental impact studies will be conducted at later stages, should Environment Bay of Plenty decide to proceed with any regional airport proposal.

3.4 **Stakeholder Impact Analysis - SOW**

Environment Bay of Plenty requires that an analysis of the proposal be conducted from the perspective of each of the primary council and non-council stakeholders in the proposal. The objective will be to determine whether a single regional airport can generate more benefits than costs for key stakeholders.

It is expected that the SOW will include:

- Interviews with key stakeholders, including councils, the airport companies, iwi and the aviation industry.
- Assessment of sub-regional plans and strategies.
- Scenario analysis on a sub-regional basis.

Chapter 4: Project Organisation

4.1 Timing

Potential consultants are required to provide proposals within 60 days of the issue of this document – that is, by **5:00 p.m. on 15 February 2005**.

Environment Bay of Plenty anticipates that the project will commence in April 2005, and is likely to require the Stage 2 RASS to be completed within 8 months of appointment.

4.2 Proposal Expenses

All costs associated with submitted proposals for the Stage 2 RASS are made at the proponent's expense.

4.3 Tender Process

- Environment Bay of Plenty is undertaking a five step process for this project as follows: advertising for expressions of interest, short-listing expressions of interest, calling for detailed tenders from short-listed tenderers, assessing detailed tenders, selecting the successful tenderer.

Tenders should be submitted on a “two envelope” basis. Tenderers should submit two proposals as follows:

- A organisation/team and timing.
- A financial proposal outlining the costs of the work, including hourly/daily rates for key personnel and the anticipated time to be spent on each task.
- Environment Bay of Plenty will conduct an evaluation of the technical proposal and select a preferred tenderer. We will then open the financial proposal of the preferred tenderer, and either award the contract to that tenderer or enter into price negotiations. If negotiations with the preferred tenderer are unsuccessful, Environment Bay of Plenty reserves the right to open the financial proposal of the second and subsequently ranked tenderers.

Environment Bay of Plenty will evaluate the technical merits of tenders using a scoring system out of 100 as set out in the Table below:

Criteria	Points
<p>Demonstrated ability to do the job in all disciplines.</p> <p>A maximum of 7 points for demonstrated competence and experience in each of the following disciplines:</p> <ul style="list-style-type: none"> • Air transport analysis; • Airport concept/master planning; • Benefit cost analysis; • Real estate valuation; • Airport site selection; • Airport operations budgeting; and • financial analysis, feasibility and business planning. 	50 points
Organisational credentials in conducting similar or related studies.	20 points
Demonstrated ability to manage multi-disciplinary, multi-organisation teams, ability/willingness to manage the project from the Bay of Plenty region, and demonstrated understanding of the region.	20 points
Previous experience in conducting regional airport scoping studies.	10 points

4.4 Team & Location

It is anticipated that the conduct of the Stage 2 RASS will require a multi-disciplined and perhaps a multi-organisational team that exhibit the following features:

- Provision of appropriate resources – proponents will need to demonstrate that they can provide high level resources to support all the disciplines required for the study, including:
 - Airport demand/traffic forecasting.
 - Airport concept development and master planning.
 - Benefit-cost studies.
 - Real estate valuation and analysis.
 - Financial analysis.
 - Site selection.
 - Detailed technical expertise in airport operation and development.
- Local presence – proponents will need to be able to demonstrate a detailed understanding of the Bay of Plenty region and locate project management resources in the region to provide Environment Bay of Plenty and various stakeholders with easy and regular access to the project team for consultation, discussion and assessments.
- Previous experience – proponents will need to be able to demonstrate significant previous experience in conducting regional airport scoping studies.

4.5 Project Governance

4.5.1 Reporting & Consultation

While Environment Bay of Plenty is funding and managing this project, it will establish multi-council staff and councillor consultation groups with the other local authorities of the Bay of Plenty region for the purposes of project consultation. Environment Bay of Plenty anticipates that consultation and reporting on the project will involve:

- Regular reporting by the consultant to Environment Bay of Plenty staff at project management meetings.
- Periodic consultation by the consultant with the multi-council staff and councillor consultation groups at meetings in Whakatane.

Although not as regular, Environment Bay of Plenty anticipates that project consultation meetings could coincide with project management meetings to reduce costs.

4.5.2 Reporting Milestones

The consultant is required to present, at key milestones, on progress and key findings to the staff and councillor consultation groups, and to build feedback from this consultation into subsequent phases of the project.

A list of potential consultation milestones is set out below. This list is not intended to be prescriptive but to provide a general guide to key points at which it is likely Environment Bay of Plenty will require the successful tenderer to consult with the staff and councillor groups. Tenderers are required to provide estimates of the number of consultation meetings to be held, based on their proposed work plan. It may be possible to report on more than one milestone at a consultation meeting.

Possible Milestone Consultation With

- | | |
|--|---------------------|
| • Completion of air transport analysis | Staff |
| • Identification of potential benefits & costs and valuation methodologies | Staff |
| • Completion of benefit-cost analysis | Staff & Councillors |
| • Selection of short-list of potential locations | Staff & Councillors |
| • Development of site assessment criteria | Staff |
| • Completion of draft report | Staff & Councillors |
| • Completion of final report | Staff & Councillors |