VOLUME B

AIRPORT AND SURROUNDS

(CHAPTERS 1–8)

B1

AIRPORT AND SURROUNDS

INTRODUCTION

1.1 INTRODUCTION

Volume B of the Environmental Impact Statement (EIS) reports on the investigations and impact assessment associated with the Sunshine Coast Airport Expansion Project (the Project) as they relate to the Sunshine Coast Airport (SCA) site and surrounding land and waters.

Specifically it relates to the following aspects of the Project:

- Construction of the new 2,450 m runway (Runway 13/31), including end taxiway loops, apron extension, relocation of navigational aids and other associated infrastructure
- A collocated Air Traffic Control tower and Aircraft Rescue and Fire Fighting Services station
- Establishment of a temporary mooring site in the waters offshore from Marcoola Beach that will be used for the dredge vessel to pump marine sand to fill the runway site
- Other temporary construction operations including site establishment, site drainage works, installation, operation and decommissioning of the dredge pipeline and management of dredge tailwater.

The chapters within this volume describe the baseline conditions and potential impacts from the Project across a broad range of environmental, social and economic matters.

Mitigation measures and monitoring recommended within the chapters of this volume are addressed in Volume E in the context of the Environmental Management Plan (Chapter E2), and the Risk Management Plan (Chapter E5).

Volume B includes the following chapters:

- **Chapter B2 – Land Use and Tenure:** This chapter provides the context of land use within and adjacent to the airport site including relevant tenure holdings in the broader study area. The chapter also documents the relevant land use planning arrangements that apply to the airport and surrounding lands and waters. Building on the identification of relevant legislation and planning documents in Chapter A6, it includes an assessment of the Project's consistency with key planning documents such as State Planning Policies.
- **Chapter B3 – Geology, Soils and Groundwater:** This chapter describes the regional and local geology of the airport and surrounds as well as soil properties, chemistry and other characteristics. The chapter also describes the groundwater resources within the study area in terms of groundwater levels, hydrology and quality. The impact assessment within this chapter identifies how geology, soils and groundwater resources may be affected by the proposed Project, including associated mitigation, management planning and monitoring for issues such as acid sulphate soils.
- **Chapter B4 – Coastal Processes:** This chapter describes the coastal processes of the study area, which includes Marcoola Beach, the nearshore coastal waters offshore from the beach and the tidal components of the Maroochy River system. Specific issues discussed in the impact assessment undertaken as part of this chapter include the temporary impacts on beach and coastal processes from installation, operation and decommissioning of the dredge mooring and pipeline.
- **Chapter B5 – Flooding:** This chapter assesses how the Project may affect regional and local flooding. It presents the modelling undertaken to assess potential changes to flood heights and velocities on the airport and in neighbouring areas as a result of bulk filling associated with the runway and proposed changes to the airport's master drainage system.
- **Chapter B6 – Surface Water and Hydrology:** This chapter provides a baseline description of water quality and hydrological processes within the airport site and in adjoining waterways. Changes to water quality and hydrology in receiving waters have been assessed using hydrologic numerical modelling tools. Specifically, the models have been used to predict and quantify changes to water quality associated with construction-based activities such as the release of dredge tailwater and operational stormwater. Changes identified by the

modelling have then been assessed against relevant water quality objectives to determine potential impacts.

- **Chapter B7 – Terrestrial Flora:** This chapter describes the baseline conditions for terrestrial flora populations and habitats on the airport and in adjacent areas that may be affected by the Project. The impact assessment provides an assessment of construction and operational phase activities that could impact on terrestrial flora values including potential impacts on threatened species such as the *Allocasuarina emuina* and coastal dune vegetation communities and appropriate mitigation and monitoring strategies to avoid or minimise impacts.
- **Chapter B8 – Terrestrial Fauna:** This chapter describes the baseline conditions for terrestrial fauna populations and their habitats on the airport and in adjacent areas that may be affected by the Project. The impact assessment provides an assessment of construction and operational phase activities that could impact on terrestrial fauna values including potential impacts on threatened species such as Wallum frogs and Ground Parrot and appropriate mitigation and monitoring strategies to avoid or minimise impacts to these species and their habitat.
- **Chapter B9 – Aquatic Ecology:** This chapter describes the ecological baseline conditions for freshwater habitats on the airport site and in adjoining waterways. The impact assessment within this chapter identifies how freshwater ecological values may be affected by the proposed Project, including associated mitigation, management planning and monitoring.
- **Chapter B10 – Marine Ecology:** This chapter describes the ecological baseline conditions for estuarine habitats on and adjacent the airport. It also describes baseline conditions and benthic ecology field investigations undertaken offshore from Marcoola Beach where the dredge pipeline and mooring site are proposed. The impact assessment within this chapter identifies how marine ecological values may be affected by the proposed Project, including associated mitigation, management planning and monitoring.
- **Chapter B11 – Indigenous Cultural Heritage and Native Title:** This chapter identifies relevant items, places and objects of Indigenous cultural heritage significance and other matters and obligations under the *Aboriginal Cultural Heritage Act 2003* (Qld) and assesses how the Project may affect these values. The chapter also outlines native title considerations and obligations under the *Native Title Act 1994* (Cth).
- **Chapter B12 – Non-Indigenous Cultural Heritage:** This chapter identifies relevant items, places and objects of non-Indigenous (historic) cultural heritage matters as identified under relevant state and local government heritage legislation and policies and assesses how the Project may affect these values.
- **Chapter B13 – Social Impact:** This chapter describes the social values of the study area and how they may be affected by the Project. It also includes an assessment of potential impacts on beach use and amenity and marine uses such as fishing in the nearshore waters off Marcoola Beach where the temporary pipeline and mooring are proposed. Impacts on social values from aircraft noise and operation are addressed in Volume D, Airspace and Aircraft Related Noise.
- **Chapter B14 – Surface Transport:** This chapter describes the current conditions and potential impacts on surface transport. This includes consideration of increased traffic issues and road use during both construction and operational phases of the Project.
- **Chapter B15 – Noise and Vibration:** This chapter describes the acoustic environment of the study area and assesses how noise and vibration generated during construction or operational phase activities could affect environmental values and sensitive receptors. Impacts from aircraft noise and operation of the runway are addressed in Volume D.
- **Chapter B16 – Air Quality and Greenhouse Gas Emissions:** This chapter describes the air quality environment of the study area and assesses how dust and air emissions generated during construction or operational phase activities could affect environmental values and sensitive receptors. This chapter also includes consideration of the relative increase in greenhouse gas emissions from construction and operational phase activities. Emissions from aircraft using the proposed new runway and facilities are addressed in Volume D.
- **Chapter B17 – Landscape and Visual:** This chapter describes the landscape and visual amenity values of the study area and provides an assessment of how the proposed development may impact on these existing landscapes and views.
- **Chapter B18 – Climate Change:** This chapter describes how climate change is likely to affect the Sunshine Coast region and provides a risk assessment of the Project against relevant climate change parameters. This includes consideration of future flooding risk (from sea level rise and increased rainfall), the incidence of more extreme weather events, and increased temperature and bushfire risk. Key mitigation measures are outlined including how the concept design and layout of the Project has considered future climate change implications.
- Mitigation measures and monitoring recommended within the chapters of this Volume are addressed in Volume E in the context of the Environmental Management Plan (Chapter E2) and in the context of the Risk Management Plan (Chapter E5).