




# EXECUTIVE SUMMARY

## ES.1 Summary

### Introduction

This report relates to the streams of the Mitchell River drainage basin number 919, which includes the Upper Mitchell River, Palmer River, Walsh River, Lynd River, Alice River and Lower Mitchell River. This represents an area of 71 000 km<sup>2</sup> with a length of major

stream of 15 425 km. Streams were assessed using the State of the Rivers methodology with condition ratings assigned to the streams for the following characteristics.

### Reach Environs

Environs around the streams were rated mostly very good. Within these streams the predominant land use was grazing in native forests, which was mostly *Eucalypt* open woodlands, *Eucalypt* woodlands, *Eucalypt* forest, *Melaleuca* forest and areas of grassland. Stream flow, during the time of survey, was between low flow, and flow level above water mark with about one quarter of sites having isolated waterholes and a further 10% completely dry.

There was little disturbance recorded to these environs with some disturbance attributed to grazing activity and infrastructure provision in the form of roads.

### Channel Habitat Diversity

Streams of the catchment generally had low diversity of habitat types present at the survey sites. The surveyed reaches of the stream comprised mostly pool and run habitat, with riffles and glides providing the control section of the stream. Substrates were mostly of medium sand size although there were numerous occurrences of rock outcrops, boulders and patches of organic material.

### Bed and Bar Stability

The streambeds were rated as less stable than the stream banks but still considered to be stable. Material moving within the streams was present as bars at half of the survey sites and covered about one-quarter of the streambed.

### Bank Stability

Stream banks were rated to be very stable, with low levels of erosion reported along half of the stream lengths. These banks were bare of vegetation for about one-third of their length.

### Riparian Vegetation

Vegetation along the stream banks was generally in good condition, with a mean width of 24 m and a diversity of structural forms throughout the catchment. Structural forms dominating the riparian vegetation included small to medium trees, with tall trees present in parts of the catchment and an understorey of low shrubs, vines and grasses. Exotic species of flora were recorded at three-quarters of the survey sites, commonly represented by *Cryptostegia grandiflora* (rubber vine).

### Aquatic Vegetation

Data describing the aquatic vegetation of the streams of the catchment was collected at 75% of the survey sites. As there were numerous sections of stream that were dry or had isolated waterholes at the time of survey, ratings have not been prepared for the entire length of streams. Submerged vegetation was recorded at 42% of the survey sites, covering about one-third of the stream length, emergent vegetation was recorded at 35% of sites and covered 7% of stream length and floating vegetation was recorded at 9% of sites.

### Aquatic Habitat

Instream features and riparian characteristics contribution to the aquatic habitat were rated as fairly good across the catchment with the full range of ratings recorded. Approximately one-third of the stream length had good habitat and approximately one third had poor condition. Canopy cover and overhanging vegetation were extensive along the stream lengths.

### Recreation and Conservation Value

Across the catchment the streams were rated as having good to very good scenic, recreation and conservation values. Recreation opportunity was of a near-pristine or semi-natural experience for 84% of sites with generally passive activities being undertaken by visitors to the catchment streams.

### Overall Condition

In an attempt to provide a single value rating for the catchment, an overall condition rating is determined by combining all ratings previously assessed. Analysis revealed that 85% of the stream length in this catchment was in good to very good condition.

