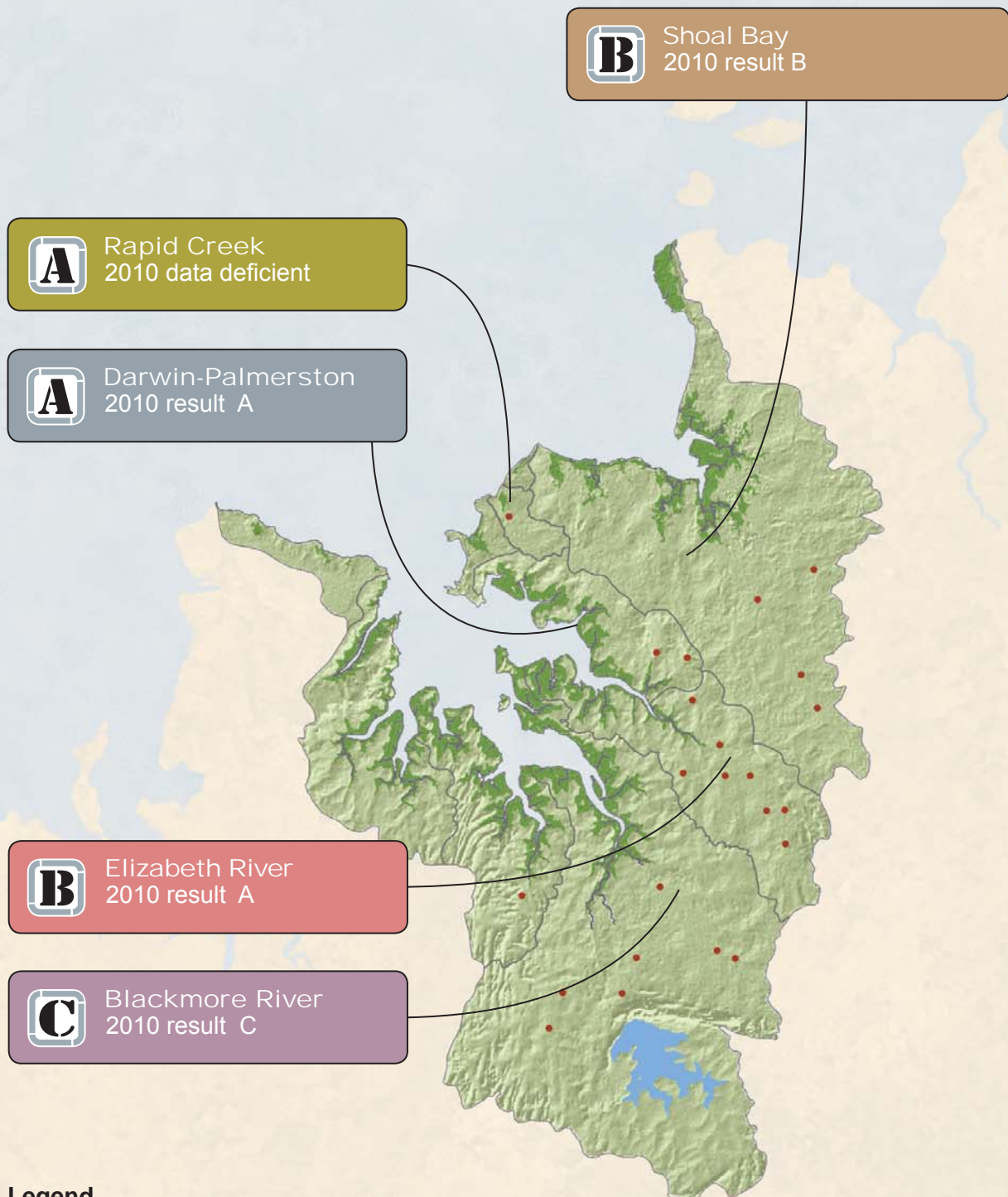


Summary of freshwater and marine water quality ratings

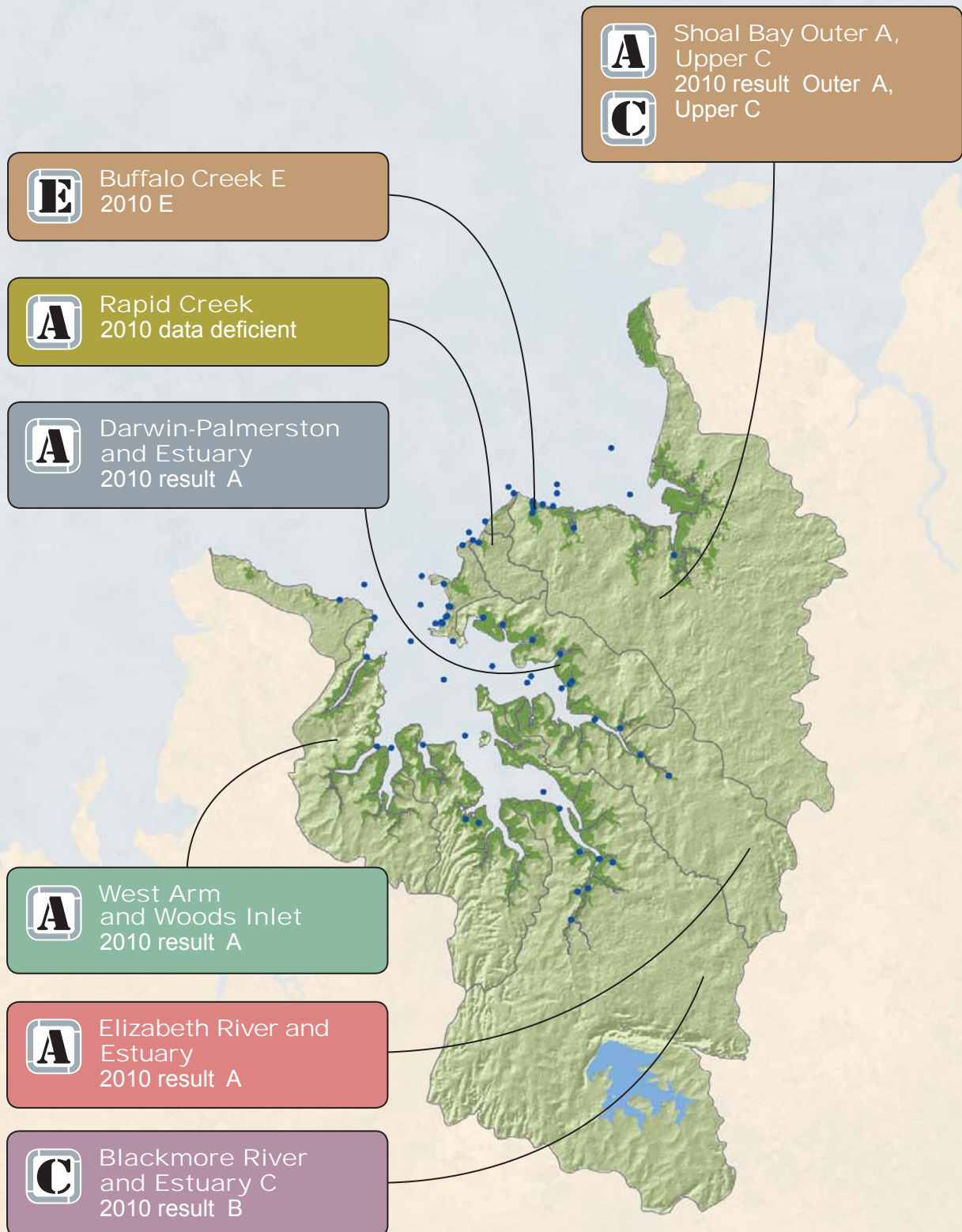


Electrofishing is a widely recognised and non-lethal method to monitor fish communities



Legend

Water quality rating	Water quality
A	Excellent
B	Very good
C	Moderate
D	Poor
E	Very poor



Summary

Water quality monitoring

Water quality monitoring has been undertaken in Darwin Harbour and its catchment by the Department of Natural Resources, Environment, The Arts and Sport (NRETAS) since 2001.

These Report Cards provide a snapshot of water quality at 29 freshwater and 61 estuarine sites monitored in 2011. The water quality of each site has been assigned a rating, from A to E, depending on compliance to local water quality objectives.

These Report Cards describe results of estuarine data collected approximately quarterly during a one year period (May 2010 to June 2011).

These Report Cards report on freshwater data collected in May 2011. The Rapid Creek Report Card also includes freshwater monitoring data supplied by Darwin International Airport.

Water quality results

The maps on the previous pages provide a summary of water quality results in 2011 for all sites in Darwin Harbour and its catchment.

Darwin Harbour and its catchment received the following scorecard:

A	A (Excellent)	Darwin Harbour Darwin-Palmerston Elizabeth River and Estuary West Arm and Woods Inlet Shoal Bay (outer) Rapid Creek (Freshwater) Rapid Creek (Upper marine)
B	B (Very good)	Elizabeth (Freshwater) Shoal Bay (Freshwater)
C	C (Moderate)	Blackmore River and Estuary Shoal Bay (Upper marine)
D	D (Poor)	None
E	E (Very poor)	Buffalo Creek (Shoal Bay catchment)

Water quality at the majority of estuarine sites across Darwin Harbour in 2010–11 was assessed as being moderate to excellent. Water quality at Buffalo Creek was very poor. Water quality in freshwater streams within the Harbour's catchments was assessed as being moderate to excellent at the sites monitored. The water-bug communities at catchment biological monitoring sites was largely in good condition with the majority of sites achieving an Ausrivas score of 'A'.

Differences in 'A to E' water quality ratings between years may not always reflect a real change in condition. Differences may arise from natural variability within short-term monitoring periods, and changes in sites.

Differences in biological ratings between years may not always reflect a real change in conditions due to variability. In future years, once sufficient data are collected, detection of trends over time may be possible.

Other monitoring in Darwin Harbour

A selection of research and monitoring activities in the Darwin Harbour region is presented in the supplement to these Report Cards titled 'Darwin Harbour Region Other Projects and Monitoring 2011'. Several collaborative monitoring projects are reported on, including a study of investigations into the potential sources of the high bacterial counts on Darwin's beaches. Other Projects and Monitoring reported on include studies on the corals, seagrasses, marine worms, dolphins, Darwin Harbour habitat mapping and the Howard River toadlet.

The Report Cards

The Darwin Harbour Region Report Cards describe the health of aquatic ecosystems based on water quality. The Report Cards contribute to the Darwin Harbour Strategy, the Territory 2030 Strategy and the Water Quality Protection Plan by providing knowledge to manage our healthy waterways.

Our harbour, our life, our future

Darwin Harbour and its catchment has a population of over 120,000 people and faces increasing population and industrial growth. This growth may intensify pressure on the Harbour environment and the wildlife it supports.

The Darwin Harbour region has green turtles (doedlirra to Larrakia people), dugong (damaldanggala, Larrakia), barramundi (damabila, Larrakia), sea eagles (garngarn, Wadjigin name), magpie geese (gakkingga, Larrakia), brahminy kites (butumba, Larrakia), mud crabs (madla, Larrakia) and agile wallabies (milula, Larrakia).

Culture – land and sea country

Larrakia Nation 2011

Darwin Harbour has been home to the Gulumoerrgin (Larrakia people) for thousands of years. For the Larrakia, the region's environments are 'cultural landscapes' that are vital to well being.

Larrakia 'country' consists of both land (gwalwa) and sea (gunumitjanda). There are tidal mudflats and mangrove (moerroerrlma) lined waterways, lagoons, floodplains, freshwater creeks and woodland (matboerrma). The sea itself comprises a variety of plant (mayoema) and animal (majawa) resources, which are managed, harvested, hunted and fished by the Larrakia People. Larrakia people have oral traditions and written documentation of our unbroken relationship to our land, our sacred sites, stories and resources. Larrakia people like to refer to ourselves as 'saltwater people' and consider the species that are not hunted including saltwater crocodiles, dolphins and whales an important part of our ancestry.

Footnote: It is traditional for Larrakia people to share their culture in the 'first person'.