

2 METHODOLOGY

The project was carried out in four phases:

- 1) literature survey, map and aerial photograph analysis, site selection,
- 2) field data collection,
- 3) laboratory analysis, and
- 4) report preparation.

The preliminary phase of the project involved an extensive literature survey to determine the general requirements for carbonate sediments in marine aquaria, and provide background information on the theory and practice of artificial beach renourishment. Also sought were descriptions of Queensland coastal areas and material examining process regimes in the Great Barrier Reef Region. This enabled the full range of likely sediment sources to be determined. Initial site selection was carried out after detailed map and aerial photograph analysis. Possible sites along the coastline were identified where likely sediment sources occurred in areas that were not in the Great Barrier Reef Marine Park.

Field examination of the potential sites determined whether they met the detailed criteria (see 6.1) requested by the Authority, and sediment sampling was then carried out. Some sites are described in detail in the literature and these were not visited in the field.

Laboratory analysis of the sediments was carried out in the Geography Department, James Cook University. Sediment size was determined using standard sieving techniques, and calcium carbonate content determined by acid digestion.