

INTRODUCTION

Seagrasses are recognised as a major component of the marine ecology at Oyster Point. They play important roles in supporting marine food webs and species of fisheries value, buffering sediment and nutrient impacts, and as food to local dugong and turtle populations. The Oyster Point seagrasses are part of an almost continuous seagrass habitat, which extends from Mangrove Point in Hinchinbrook Channel to Meunga Creek, north of Cardwell (Lee Long et al. 1998a) - possibly an important feeding corridor for dugong. A review of tropical seagrasses ecology and the impacts of natural and anthropogenic factors (see Coles et al. 1997) demonstrated the need to map and monitor seagrass resources at Oyster Point and to identify areas requiring special conservation measures.

Reconnaissance and baseline surveys by Coles et al. (1996a; 1997) documented the distribution and abundance of seagrass meadows in the vicinity of Oyster Point in September 1994, November 1995 and August 1996. These surveys provided measures of natural seasonal variability in seagrasses at Oyster Point prior to capital dredging of the main boat access channel in Spring 1997.

Maintenance dredging of the main boat channel at Oyster Point began in August 1998 and continued beyond the November 1998 monitoring survey into early 1999. The marina was also deepened during 1998. The opening and widening of the marina entrance began on 20th November - 4 days prior to the 1998 monitoring survey.

Seagrass monitoring surveys were conducted in December 1997 (Lee Long et al. 1998b) (immediately following capital dredging) and November 1998 (Lee Long et al. 1999) (immediately after opening and widening of the marina entrance, and while dredging of the marina and maintenance dredging of the main boat channel continued). A silt layer was identified in the November 1998 survey, covering seagrasses in the northern survey region, and plants displayed symptoms of burial and light deprivation. The present monitoring survey (December 1999) was conducted for the Great Barrier Reef Marine Park Authority to test for persistence of the silt layer and possible impacts on seagrasses.

An assessment of changes in seagrass distribution and abundance in late Spring/early Summer since the baseline (November 1995) and with the previous monitoring surveys of December 1997 (Lee Long et al. 1998b) and November 1998 (Lee Long et al. 1999) is included. A quantification of changes between years and comment on possible impacts of the dredging program is provided.