Mangroves and Saltmarshes

Understanding the Western Port Environment

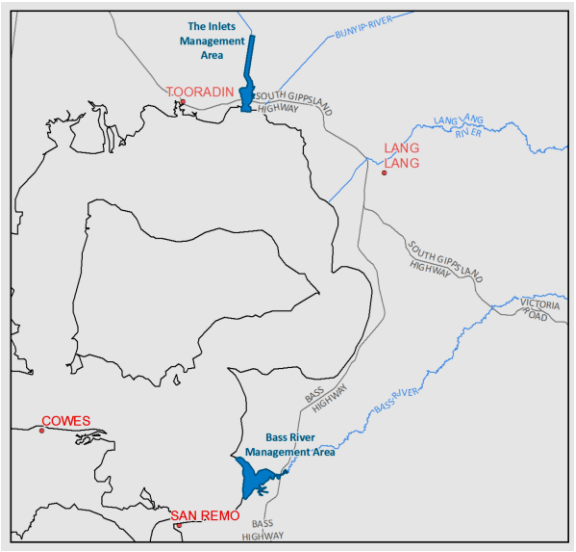
Tom Hurst, February 2019

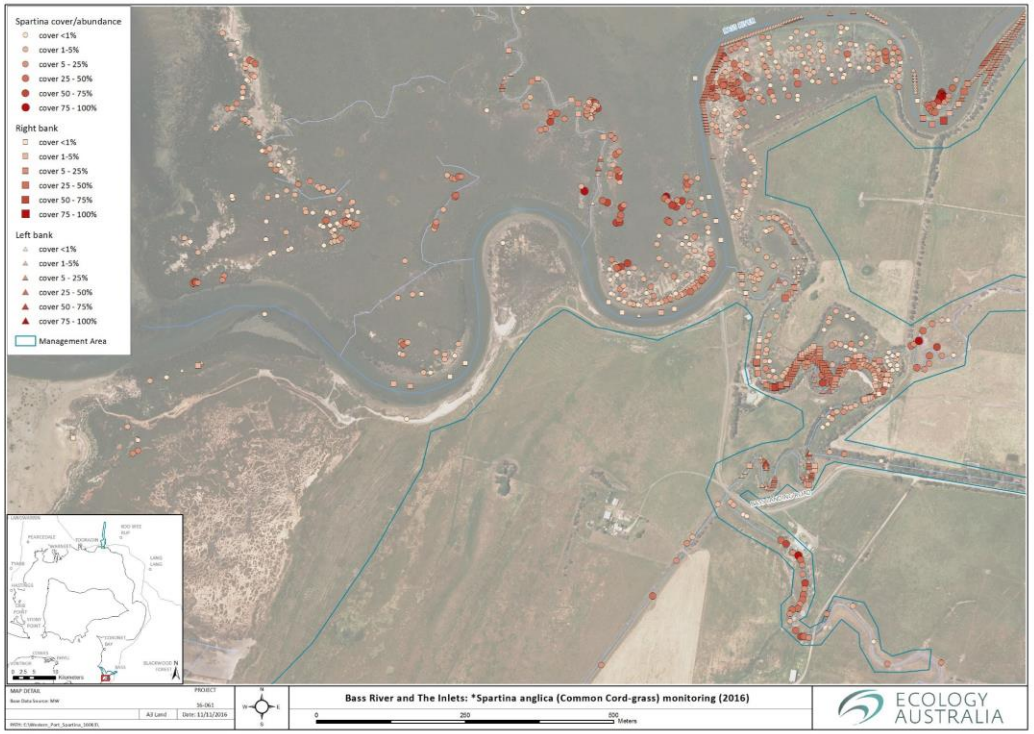
VICTORIA State Government

Melbourne Water
Enhancing Life and Liveability

Introduction

Coastal invaders





Coastal invaders

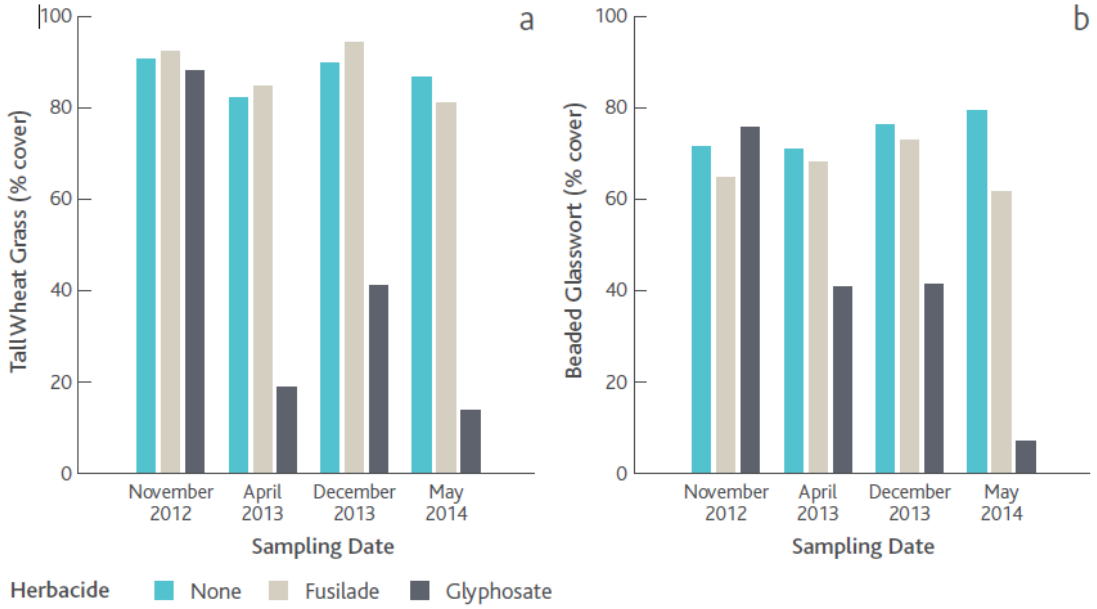


Figure 6.3 Abundance of (a) tall wheat grass, *Lophopyrum ponticum* and (b) the indigenous beaded glasswort, *Sarcocornia quinqueflora* over the period of control trial.

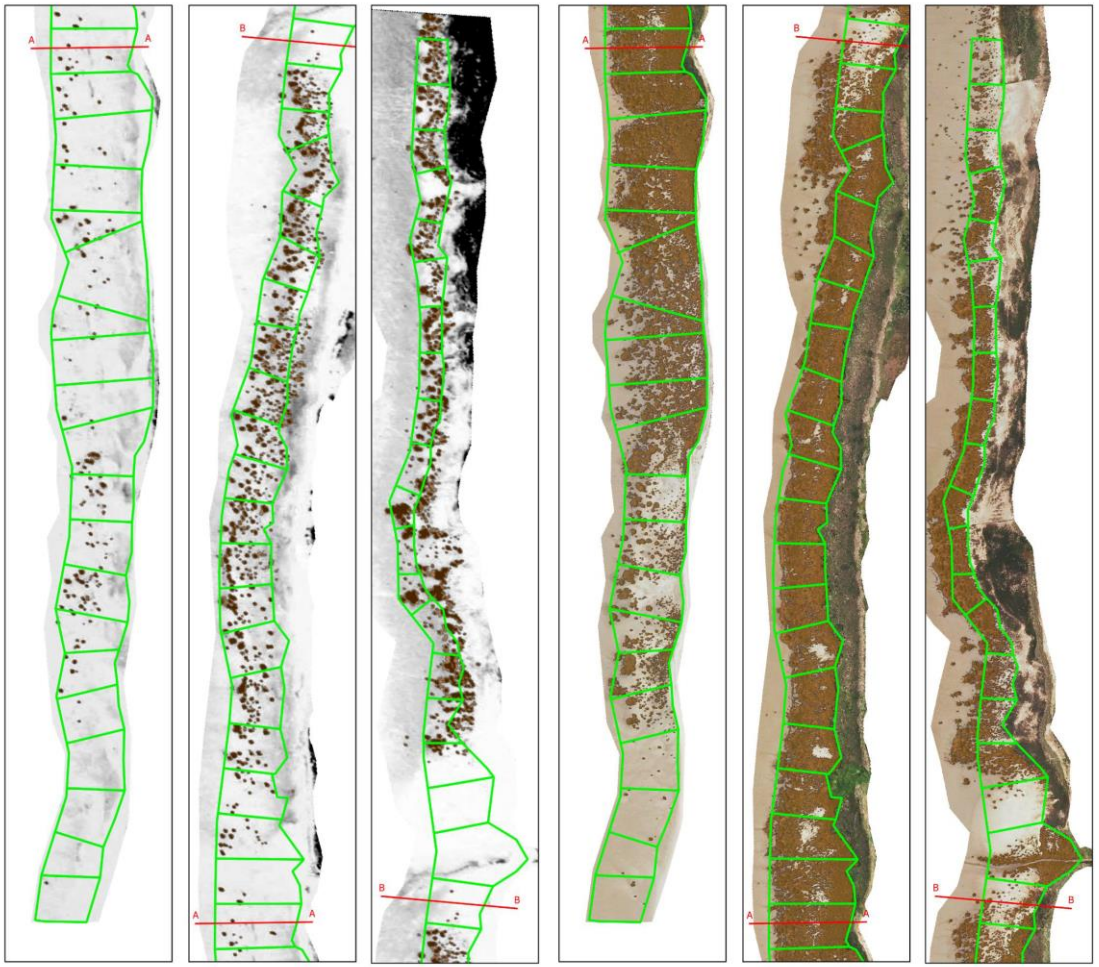
Bugs in the mud

Fig. 3

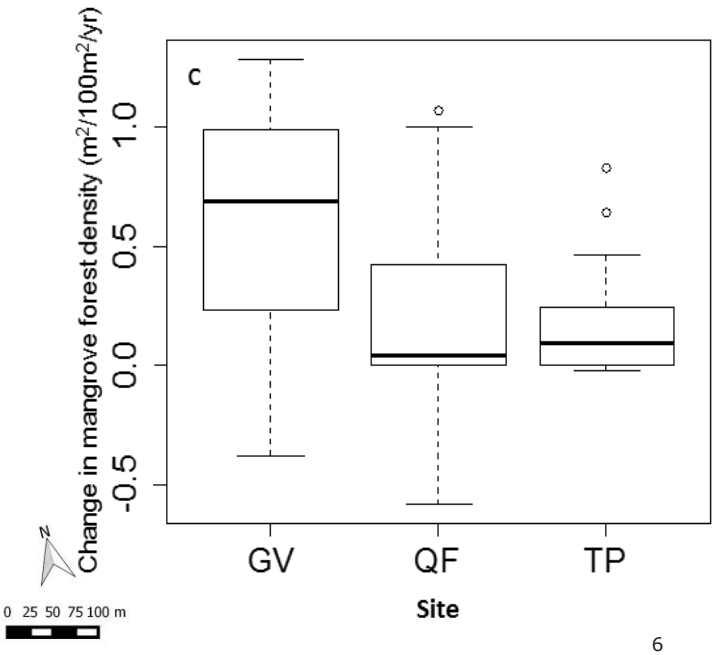
Moving mangroves

1951

2009

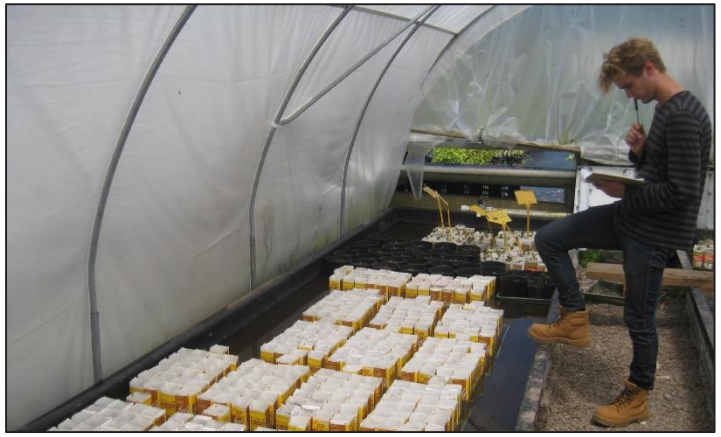


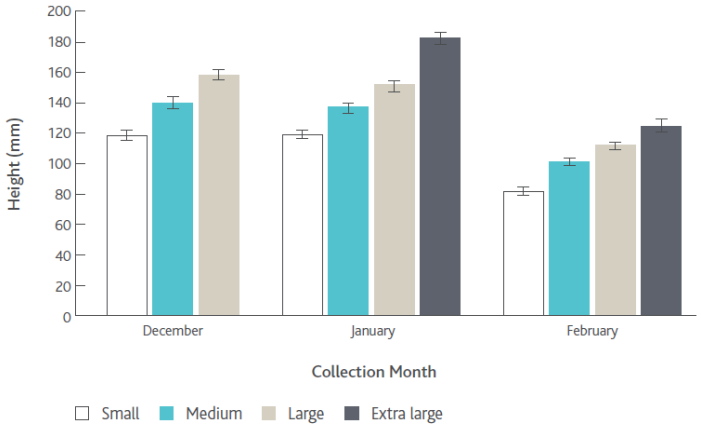
Initial mangrove area (m^2)	59,071.78
2009 mangrove area (m^2)	157,402.80
Mangrove area change (m^2)	98,331.02
Annual mangrove area change (m^2/yr)	1,649.13

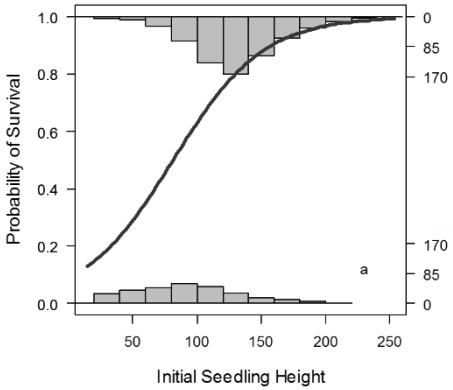


Restoring mangroves

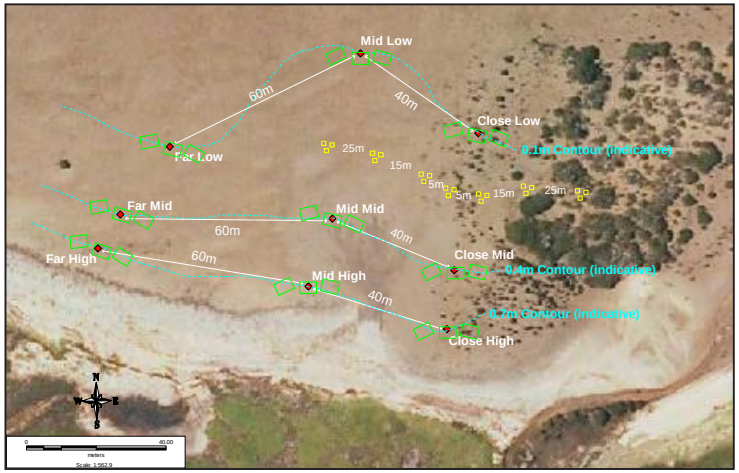
Harvesting seeds and raising seedlings

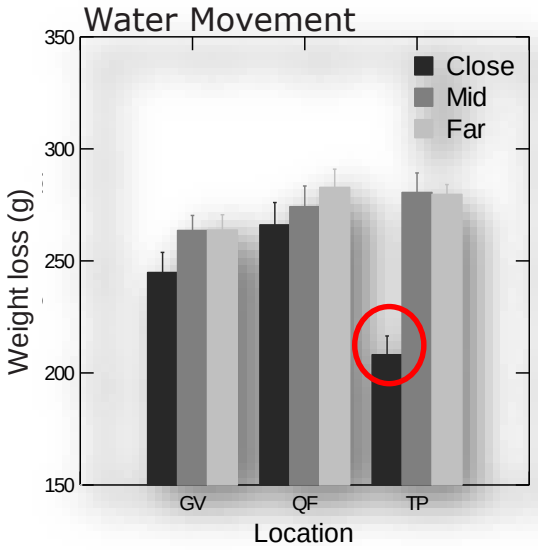


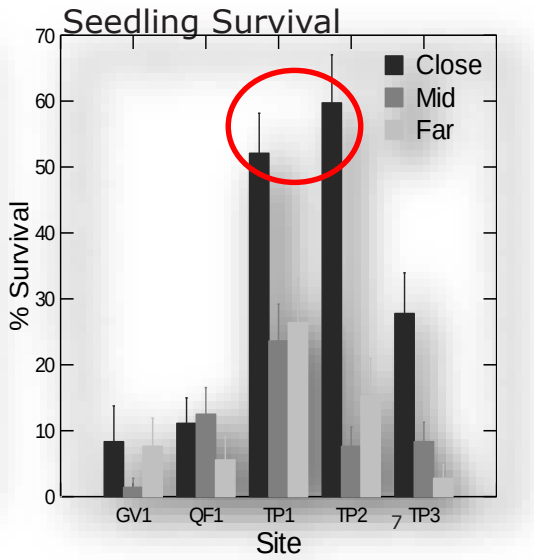




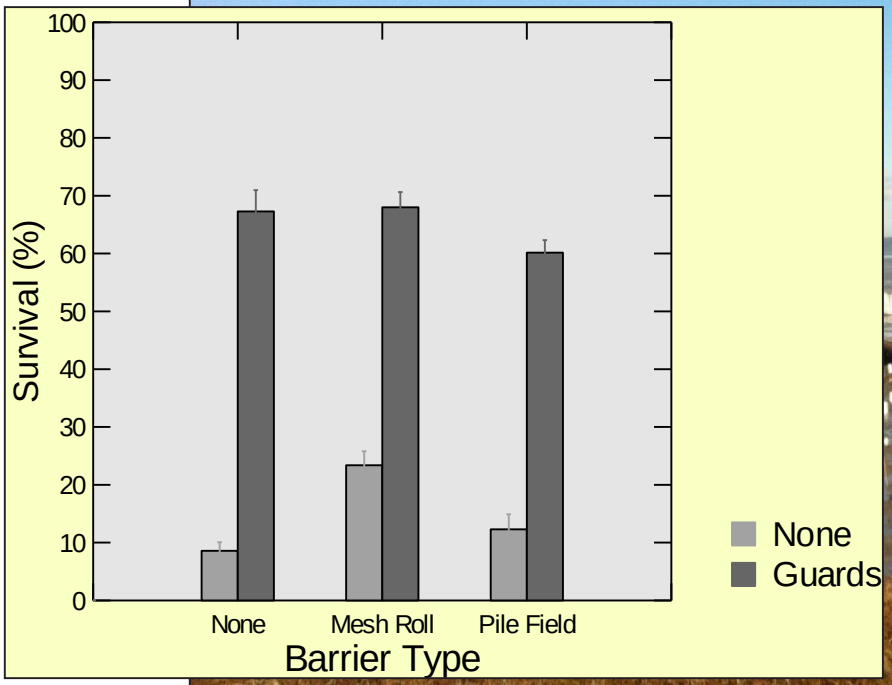
Survival after planting

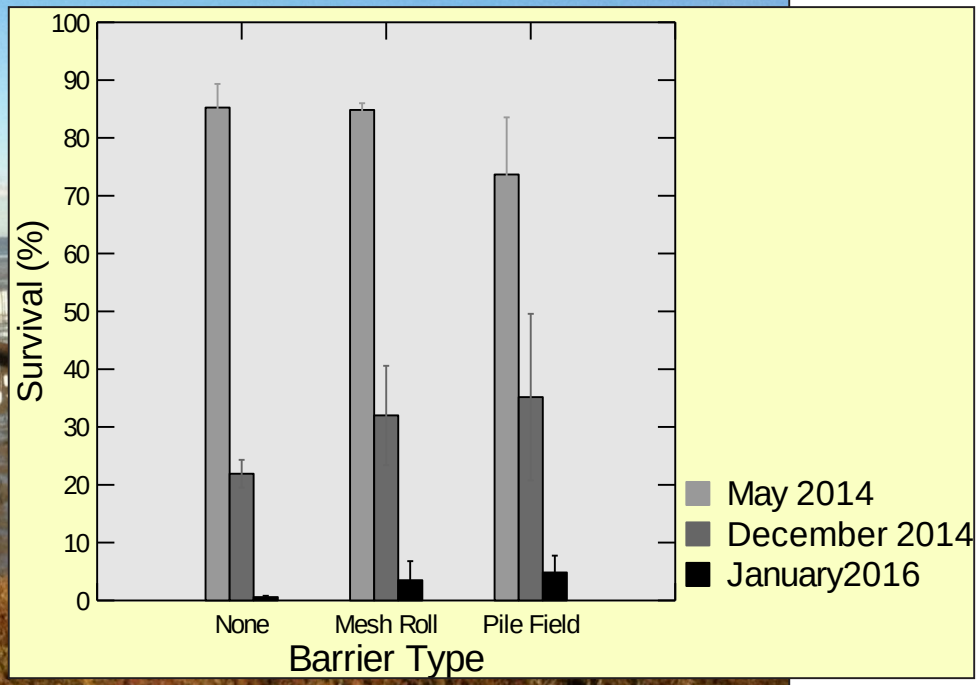




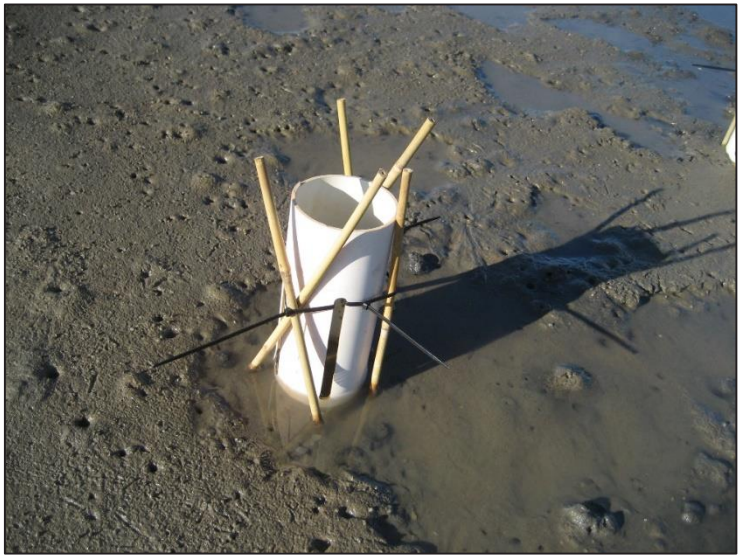


Restoring mangroves





Further developments…

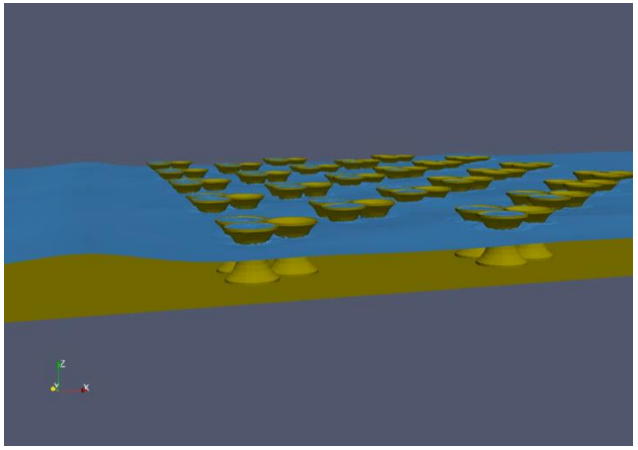


WESTERN PORT SEAGRASS PARTNERSHIP

Further developments…

Nature-based Coastal Defences – a Hybrid Approach

1. Engineering the pods



- Stability
- Wave attenuation

REEF DESIGN LAB

2. Community consultation

- Open Houses
- Online survey

SCIENCE INTO ACTION

3. Pod deployment

- Altona, Grantville, Lang Lang
- Coastal defence
- Blue carbon & biodiversity

WESTERN PORT SEAGRASS PARTNERSHIP







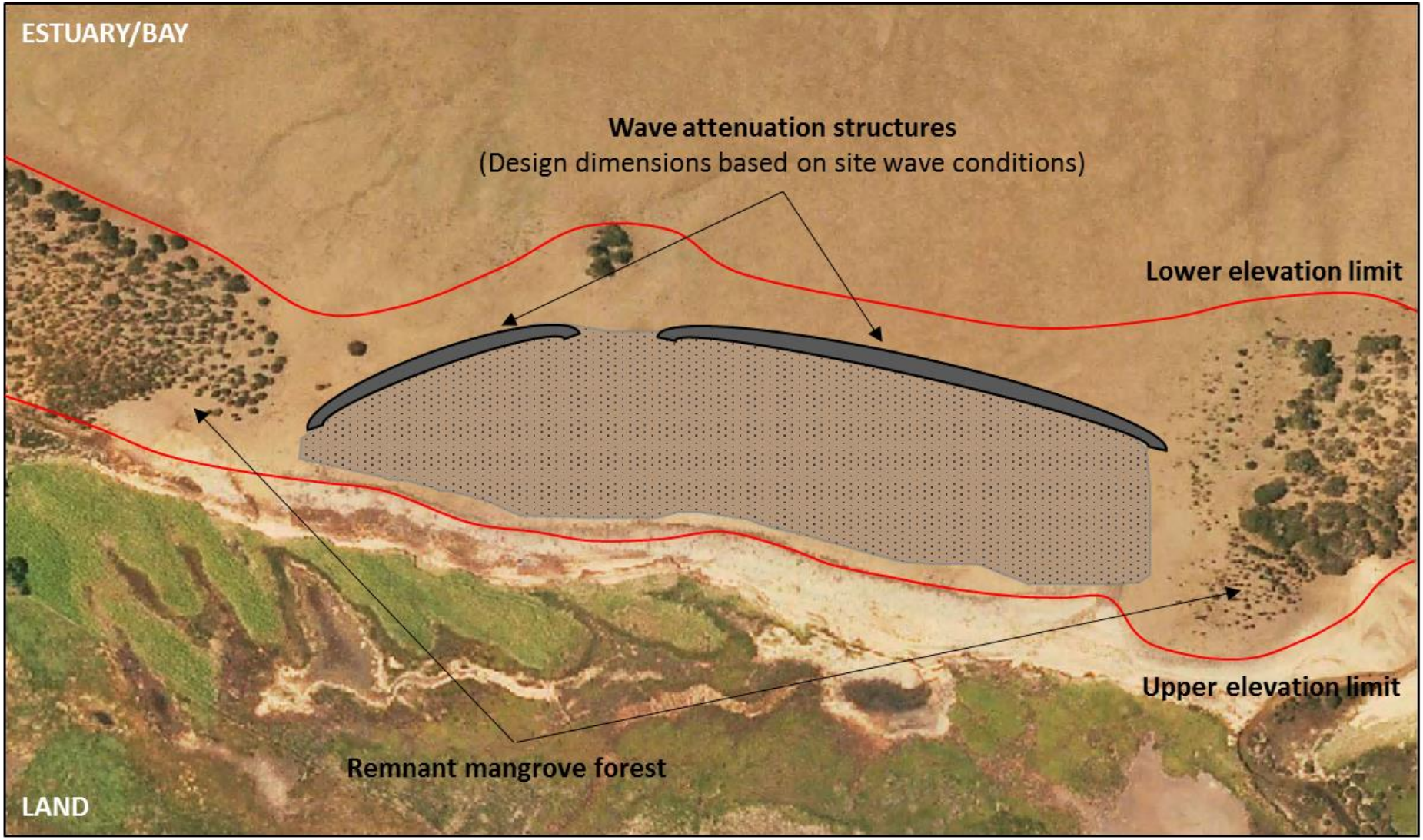









Clues from natural regeneration?



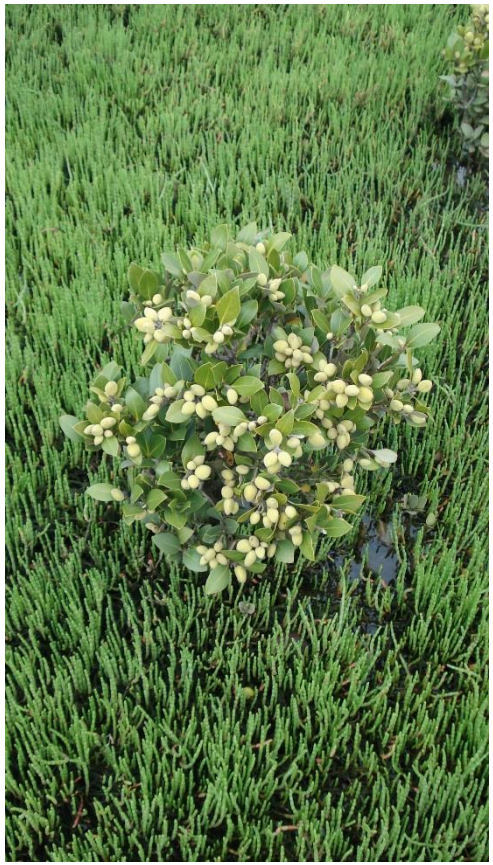
Future research…

Identify options for erosion control along the Lang Lang coastline to achieve water quality outcomes

Identify differences between current state of WP soft sediment faunal assemblages and earlier descriptions. Produce updated spatial description of subtidal soft sediment areas.

Mangroves and saltmarsh as habitat for animals and plants.

Estimate extent of invasion of key marine habitats and better understand the threat of weeds to coastal vegetation.



Thankyou