FEASIBILITY STUDY FOR INTERTIDAL HABITAT CREATION SCHEME

Location: River Tamar, UK
Project Dates: April 2017-December 2017
Clients: National Trust

Scope of work:

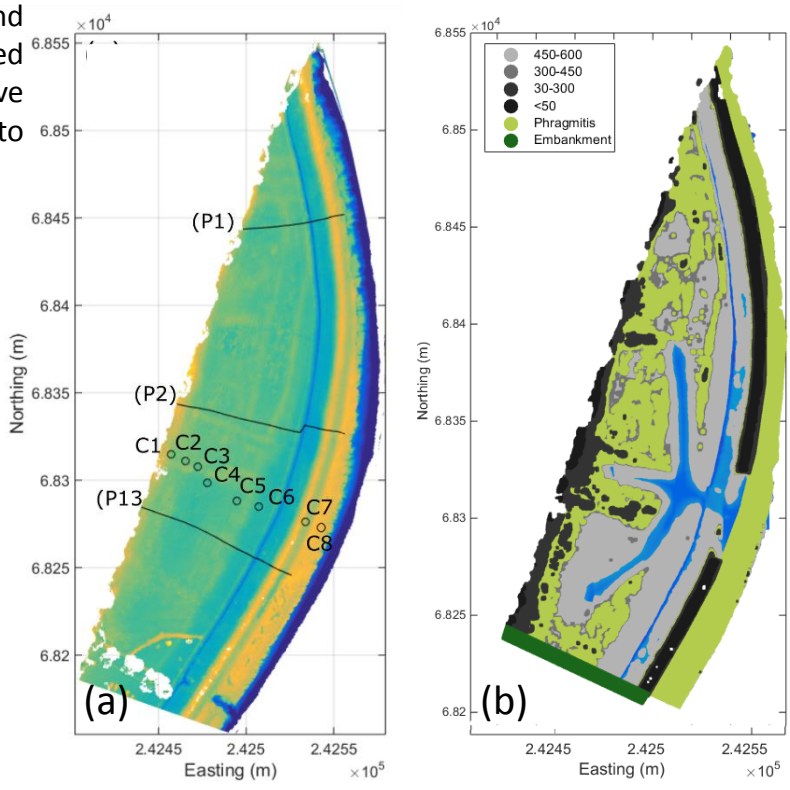
- UAV topographic survey, in-situ tide measurements
- Analysis of tidal flows and hydrodynamic model analysis
- Quantification of inundation rates and habitat colonisation
- Proposal of scheme options

PROJECT DESCRIPTION

The impact of sea level rise and changing weather patterns, driven by climate change, pose significant challenges for property managers along our coastline. Within estuaries, the combined fluctuation of river flows and tides, further complicates understanding future response. Habitat creation schemes can help alleviate flooding pressure whilst providing new intertidal zones for a variety of plants and wildlife. A detailed assessment of the impact any scheme will have on the wider estuary is crucial in achieving project success.

Above: UAV photogrammetry used to create a detailed 3D topographic surface

Analysis of In-situ measurements and hydrodynamic modelling have enabled CMAR to provide a comprehensive feasibility study allowing the client to make informed decisions.



Right: (a) digital elevation map of the site showing survey transects and ground investigation sediment cores; (b) inundation map showing possible habitat development following breaching of existing flood barrier

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