



Manawatu Estuary Sediment Monitoring Project

Report #1- Preliminary Field & Laboratory Services conducted to the beginning of July 2008.

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This report outlines the fieldwork and laboratory work completed as upon the date of July 3rd. Significant progress has been made with the project will the completion of all field work and associated sample collection. This also includes an additional meeting on the 27th June at the Palmerston North DoC office with key Department staff and Dr Gillian Rapson from Massey University.

Project outcomes to date:

- (i) All surficial samples for sediment and metal analysis were collected on the 27th and 30th of June and the 1st of July. Field work was undertaken on these dates due to the timing and height of low tide, and appropriate weather conditions. Samples were collected from Fernbird flat and the mudflat adjacent to the estuary mouth at the locations indicated in Figure 1. The sample sites were adjusted to correspond with vegetation transects as per the meeting on the 27th with Dr Gillian Rapson.
- (ii) The meeting on the 27th also adjusted the original sampling regime to exclude samples from the southern section of the river. This allows for a greater coverage of samples in the main area of interest behind the dunes north of the channel. Sample sites were also adjusted in the field as observations were made.
- (iii) Site observations made, indicated that vegetation and drift wood appear to be preventing sand movement. The mud flats behind the bollards had little observable dune sand component, indicating that sand movement is probably minimal. Vibrocoring was not undertaken at this site, as further discussions and on-site observations showed that surface sampling would adequately meet the project aims. In addition as this location was the historical path of the river (pre- Foxton loop), any cores in all probability would reveal little information in regards to dune movement. Furthermore time and budget constraints precluded further sites visits and it was deemed that resources would be better spent on the collection of surface samples, in order to completely fulfill the aims of understanding the sedimentary environments most relevant to the avian fauna of the Ramsar Site.
- (iv) Sixty percent of the aerial photos provided have been rectified to New Zealand Map Datum (NZMD). The estuary mouth and river channel for these photos has also been mapped.

(v) Surficial sediment samples are currently being processed for analysis. Laboratory analysis is estimated to be completed by the 15th of July at the earliest subject to ICPMS availability.

Summary

All field sampling has been conducted and laboratory work is underway. In addition analysis of the aerial photography has been started and meetings with key stakeholders conducted. It is anticipated that the final report for the project will be available by the due date of 22nd August 2008.



Figure 1: Sediment Sample Locations in the Manawatu Estuary