

## **Jackett Island Erosion Study** *Progress Report March 2012*

Report prepared by Sarah Downs, Tasman District Council

### **1. Summary**

This report sets out the project progress for the studies to investigate the long term resolution of the erosion issues at Jackett Island, since the interim works were completed on 5 September 2011.

This document identifies work progressed during February and March 2012 and provides an assessment of progress to the original programme.

### **2. Monitoring of shoreline along Jackett Island**

Photographic monitoring was completed under the management of Council on 23 February, 25 February, and 2 March 2012. Photographic evidence of a partial wall collapse was taken by Mr. Zondag on 25 March 2012. Copies of these photographs are included in this report.

In addition a topographic survey was carried out in March 2012 and the results of the survey were compared with the survey completed in November 2011 (Tonkin & Taylor memo dated 26 March 2012). The results show recent erosion is focused at the southern end of the Van Dyke property and further south.

The photographs and topographic survey show the shoreline to the north of the Van Dyke property remains in a relatively accreted state with a reasonable width of dry beach. However, there has been considerable and significant sand loss to the southern end of the wall close to the macrocarpa tree and beyond on the Zondag property. After a high tide accompanied by 30km/h winds on 25 March 2012 a partial collapse of the wall took place in this location.

### **3. Removal of existing geotextile groyne**

The resource consent for the removal of the groyne was granted on 12 March 2012. The conditions of the consent state that the full groyne needs to be removed between May and August 2012.

Surveys have taken place to locate the full length of the groyne and its actual location.

### **4. Tasks of development of long term option**

#### **4.1 Data Acquisition – Completed**

4.1.1 Sand sampling and analysis completed February 2102.

4.1.2 Review and Analysis – Completed

## **4.2 Consultation**

In progress. A meeting was held on 14 March 2012, between the Van Dyke Family Trust, their expert Bob Kirk and Richard Reinen-Hamill. A further meeting took place to discuss the numerical modelling and agree the options for modelling. This included the experts acting on behalf of the major stakeholders.

## **4.3 Numerical Modelling**

### 4.3.1 Modelling of existing situation

In progress. MetOcean Solutions Ltd was awarded this contract. Calibration is currently taking place prior to the modelling of two agreed options. Calibration is expected to be complete in April and modelling of options expected to be completed by the end of May 2012.

### 4.3.2 Development of options

In progress. Two options were discussed in the expert meeting of 14 March 2012 for numerical modelling with the possibility that a third may be selected at a later date.

### 4.3.3 Modelling of options

About to commence and take place throughout May.

## **4.4 Development of preferred options**

No progress. Subsequent project stage.

## **4.5 Consent process**

No progress. Subsequent project stage.

## **4.6 Detailed design and implementation**

No progress. Subsequent project stage.

## **5. Reporting**

### **5.1 Practicable options report (final)**

Completed. Discussed at 14 March 2012 meeting between experts.

## **6. Programme**

A timeline was discussed with the Van Dyke Family Trust plus the other experts. Calibration is presently a week behind schedule and modelling should be completed by the end of May 2012. This will allow the work on developing options for the long term solution to progress at an agreed rate.

## **7. Applicability**

This report has been prepared for the benefit of Tasman District Council and reviewed by Richard Reinen- Hamill for Tonkin & Taylor Ltd.



Photos taken on 23 February 2012



Photos taken on 25 February 2012



Photos taken 2 March 2012



Photos taken 25 March 2012