

Jackett Island Erosion Study

Progress Report July 2012

1. Summary

This report outlines progress on 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 July 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 27 July 2012. These photographs were taken as part of the general monitoring process. The photographs (1-5) at the end of this document display that there is sand accretion at the northern end of the wall as well as that end of the island. There is also evidence that there are high levels of erosion beyond the southern return of the wall and to the southern tip of Jackett Island (see photos 6-11). At low tide there is a significant amount of gravel exposed and also clay, which can be seen in the photos 12-16. The last photographs (17 – 20) show the geotextile sand bag and erosion inland.

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 from June through to the end of August.

Taylor's Contracting was awarded a short-form contract to remove the groyne. Work on the removal of the groyne began on 25 June 2012. Work was delayed owing to damage from the storm event to Jackett Island works which took place on 5-6 June 2012, plus further poor weather restricting access to the groyne site. A variation to the resource consent also had to be undertaken so that the contractors were able to refuel on site. The Department of Conservation agreed to this variation. Philip Drummond is the Engineer to the Contract and regularly visits the site.

The progress in removing the groyne went very well during July 2012 with just a small section (50-100 metres) remaining under water. The recent weather has hampered progress in removing this last section.

4. Tasks of development of long term option

4.1 Data Acquisition – COMPLETED

4.1.1 Sand sampling and analysis COMPLETED February 2012.

4.1.2 Review and Analysis – COMPLETED

4.2 Consultation

In progress.

Discussions have taken place between the experts regarding the modelling that is in progress. A second teleconference was also held on 27 July 2012 to discuss how the modelling should be refined. As the modelling is iterative, the modelling of one cut was preferred for the moment, with new conditions being added to the modelling one at a time. Once the modelling has been completed and a preferred physical works option has been identified, consultation will be held with the community. All appropriate options will be considered by the expert panel.

4.3 Numerical Modelling

4.3.1 Modelling of existing situation - COMPLETED

This was recently calibrated and validated. This required meeting with experts and changes to meet the comments made.

4.3.2 Development of options

In progress. One location was selected for numerical modelling with the possibility that others may be selected at a later date.

4.3.3 Modelling of options

In progress. Preliminary results are now expected in late August 2012. These results will form the basis as to whether other options need to be modelled.

4.4 Development of preferred options

No progress. The modelling is showing that we are dealing with a highly dynamic and complex coastal environment. The group of experts are wishing for further components to be added to the modelling to analyse the effects.

4.5 Consent process

No progress. This cannot proceed until practicable options are identified and reported back to Council.

4.6 Detailed design and implementation

No progress. This cannot proceed until the final option is considered by Council and approval to proceed is granted.

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. The collaboration process and the agreement to ensure a robust modelling process has delayed the timeline and the final practicable options report. A new timeline has been developed since

the teleconference on 27 July 2012. This has been submitted to the Environment Court and posted on the Council website.

7. Applicability

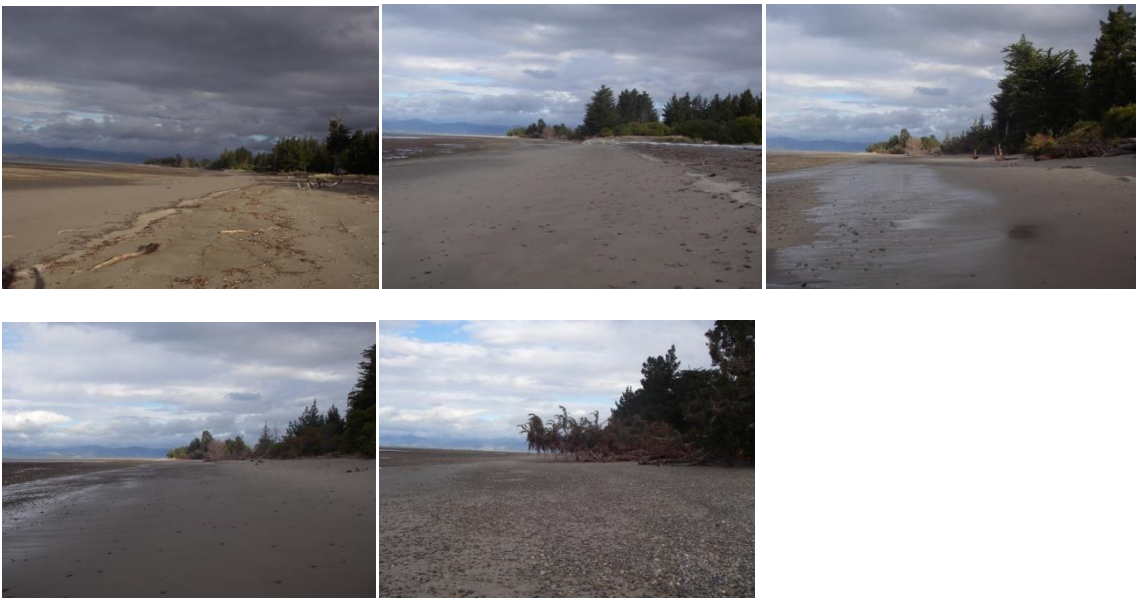
This report has been prepared for the benefit of Tasman District Council and reviewed by Richard Reinen- Hamill for Tonkin & Taylor Ltd.

July 2012 monitoring of Jackett Island – photographs

Photos 1-5 (below) looking north from survey points along the beach



Photos 6 – 11(below) looking south from survey points along the beach



Photos 12-16 (below) looking east from the survey points along the beach (these photos indicate the level of erosion at low tide and the exposure of the Moutere clays)



Photos 17 – 20 (below) looking west from the survey points along the beach (including the geotextile sand bag wall).



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