

THE WEST COAST REGIONAL COUNCIL

PUNAKAIKI RATING DISTRICT

ASSET MANAGEMENT PLAN

October 2014

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EXECUTIVE SUMMARY

Under the Local Government Act 2002 Councils are required to develop 'Asset Management Plans' to demonstrate that they are managing the infrastructure for which they have responsibility.

This plan sets out the history of the scheme so there is a record of the major decisions, including expenditure. It identifies the Objective(s) of the scheme as well as the methods of monitoring the condition of the assets, and determining the annual maintenance needed to retain the service level.

The Punakaiki Township Coastal Erosion Protection Scheme extends 460 metres from the southern end of Dickinson Parade to Owen Street in the North and is bounded by State Highway 6 in the east and the Tasman Sea in the west.

The area protected is predominantly residential with some commercial properties.

Community infrastructure such as roads, power and telephone lines all derive benefit from the erosion control system.

The Infrastructural Asset Register details all of the Scheme's assets and their latest valuation.

SECTION 1: INTRODUCTION

1.1 PURPOSE OF AN ASSET MANAGEMENT PLAN

This Asset Management Plan defines the objectives and performance standards of this erosion control scheme for which the Regional Council has the maintenance responsibility and provides a basis upon which the effectiveness of maintenance performance can be measured.

This asset management plan:

- Identifies the service level for the Rating District.
- Describes the history of the rating district and identifies its assets.
- Describes the methods used to maintain the service level of these assets.
- Complies with the regulatory requirements of the Local Government Act 2002.

1.2 BACKGROUND

As a result of concerns expressed at the continued deterioration of the existing "sacrificial protection bund" erected by the Buller District Council on the Punakaiki Foreshore, the Punakaiki Management Group convened a meeting on 11 February 2004 at Punakaiki.

The meeting comprising of representatives from: the Buller District Council, the West Coast Regional Council, the Punakaiki Management Group, the ratepayers, Electronet Services, the Department of Conservation and Transit NZ discussed the issues and decided to approach the West Coast Regional Council to prepare preliminary designs, costings and a rating mechanism in order to facilitate discussions with local ratepayers to determine the future direction of the protection of the Punakaiki Township area.

The Council's first proposal, incorporating a rock armoured seawall, situated along the eroding foreshore area from the State Highway in the south to 240 metres north of Owen Street (the Camping Ground area), a distance of 980 metres, was presented to a special public meeting at Punakaiki June 2004. This proposal was estimated to cost in the vicinity of \$800,000 (G.S.T. Exclusive).

The ratepayers' share would be approximately \$581,700.

A capital value – based rating district was suggested as a possible funding initiative.

A questionnaire was consequently sent out to all ratepayers in the area, seeking support, or otherwise of the proposal and the funding option preferred in the situation where a special rating district was set up and the proposed works proceed. The result of the questionnaire was that 18 were against, 14 for and 6 failed to respond.

As a result of the questionnaire indicated that more ratepayers were opposed to the proposal and no further work was carried out in the interim.

Severe storms further eroded the Punakaiki Township sea frontage over the next 6 months, initiating urgent remedial action.

Council in April 2005, instructed staff to urgently reappraise the situation and as a result a modified proposal including a reduction in length, a reduction in height and the use of rock from the Strongman Mine area was drawn up.

The new reduced proposal covered an area from the southern end of Dickinson Parade in the south to Owen Street in the north. The reduced height allowed for the "topping up" by 1 metre, if required, in the future.

The revised design and rock source resulted in a 41% reduction in ratepayer cost from \$581,700 to an estimated \$342,000.

A proposed rating differential of 100: 60: 20 (Class A: Class B: Class C) was promoted as being a fairer ratio, taking into account ratepayers' perception of the reflection of the erosion threat weightings.

A major storm event occurred in the period 27 – 31 May 2005, resulting in further increased serious erosion of the foreshore area.

As a result of the questionnaire, out of a possible 39 properties 78.13% of valid votes cast were in favour. The 10 year Loan Option was the preferred method of funding the initial capital works. As a result, the Punakaiki Rating District was set up and adopted by Council on 9 August 2005. The work was carried out by Ferguson Industrial Division Ltd and was completed at a final cost of \$434,472.

A retrospective resource consent was applied for by the Buller District Council to carry out the construction of the works. This covered the area plus a possible extension to the north to protect the Camping Ground in the future if required.

1.3 DESCRIPTION OF ASSETS

The Rating District works include all works outlined in the Infrastructural Asset Register. The total replacement value of these works was \$1,542,856 as at 30 June 2014.

The capital value of land and buildings within the confines of the scheme was \$16.9 M as at 30 June 2014.

Asset Class	Value
Stopbank Fill	\$330,000
Rockwork	\$739,200
Running Course	\$6,000
Filter Fabric	\$89,000
Bedding Gravel	\$184,800
Pipes PVC	\$8,095
Rubble	\$18,000
Contingency and Administration	\$167,761
TOTAL	\$1,542,856

Note that a 10% contingency to cover design and a 2% estimate administration of the work including resource consent costs has been added to more fairly indicate total replacement costs.

SECTION 2: SERVICE LEVELS

2.1 OBJECTIVES

The objective of the Punakaiki Rating District is to reduce erosion on the coastal frontage of the Punakaiki Township between the southern end of Dickinson Parade and Owen Street in the north over a distance of 460 metres.

The seawall built in 2005 has been designed to handle the historically observed tidal fluctuations and surge patterns of the Tasman Sea in the vicinity. The scheme structures will be maintained to the dimensions that they were originally constructed.

2.2 MAINTENANCE

An annual maintenance programme will be prepared each year in consultation with the ratepayers prior to adoption by the Council for inclusion in the Annual Plan.

In preparing the annual maintenance programme consideration will be given to:

- An inspection to establish any works requiring immediate repair.
- works anticipated as being required given a 'normal' season.
- flexibility to meet unbudgeted damages.

Erosion Control Works

The erosion control works consist of rock placed in continuous riprap, which is built to provide protection to the land from the Tasman Sea. It is built to absorb the energy of the waves and is subject to significant exposure and damage during storm events. It is very important to ensure damage to the sea protection structure is undertaken swiftly and to ensure any slumping of rock is topped up.

2.3 DAMAGE EXPOSURE

Coastal erosion control works are constructed in a very high energy environment with the purpose of resisting and absorbing some of that energy. It is considered that no matter what the standard of maintenance carried, it is inevitable that damage will occur to structures.

The maximum damage potential must be considered to be the total loss of the wall in a major event because it is not possible to determine return periods for coastal storms.

SECTION 3: FUNDING

3.1 MAINTENANCE

Maintenance is funded by targeted rates, the level of rating being determined each year in the Annual Plan process following:

- Preparation of an annual works programme and corresponding budget.
- Consultation with Rating District.
- Adoption of draft programme and budget by Council.
- Adoption of final Annual Plan by Council.

3.2 DAMAGE REPAIRS

Routine damage repairs are funded by a combination of:

- carrying out work as scheduled in annual works programme.
- reprioritising works identified in the annual works programme.
- use of financial reserves.

Major damage repairs would be funded by loans raised by the Council and repaid by targeted rating over a number of years.

3.3 FINANCIAL RESERVES

Financial reserves are held within each rating districts account to provide the following.

- meet the costs of unscheduled works.
- enable an immediate response to flood damage repairs.
- prevent major fluctuation in rating levels annually.

The level of financial reserves held in each rating account is determined by the assessment of risk damage and the need for unprogrammed works.

3.4 DEPRECIATION

River control schemes are designed to be maintained in perpetuity by constantly repairing and replacing component parts which are damaged by the constant wear and tear. Because there is a constant cycle of replacement of elements of the infrastructure, depreciation of the value of the assets is not appropriate and funding of depreciation is not necessary. This approach is consistent with the NZ Infrastructure Asset Valuation and Depreciation Guidelines (Section 5.4.4).

SECTION 4: PERFORMANCE MEASURES

The overall performance measure is that the infrastructure assets are maintained to meet their service levels at all times.

The following procedures will be adopted to ensure the adequacy of maintenance.

Annually

- (i) Produce annual works report for the rating district to include type of work to be undertaken, quantities, location and costs.
- (ii) Organise contracts for agreed scheme work, oversee contract completion and report to Council.
- (iii) Report on works undertaken during the previous financial period to the rating district ratepayers and Council.

Performance Measure

No reports of stopbanks or erosion protection works requiring repairs without an agreed programme of remedial work in progress.

Triennially

- (i) Re-fly aerial photographs of the area, analysing these photographs to assess changes in river meander patterns that could impact on Rating District Assets.
- (ii) Re-measure cross section river profiles to determine whether the riverbed is stable, or aggrading, and to identify management issues or options.
- (iii) Revaluation of the asset schedule to include any additional rock placed on stopbanks and bank protection works over the three year period.
- (iv) Review this Asset Management Plan

Performance Measure

Report to Council and ratepayers on revaluation of assets and the Plan review.

APPENDIX 1: WORKS EXPENDITURE

2005*	2006	2007	2008	2009	2010	2011	2012
0	0	-	16,272	2,304	1,540	16,505	78,542
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2013	2014						
16,256	19,237						

Total Expenditure	\$ 150,656
Average Expenditure	\$ 15,065
Average Expenditure as a % of Asset Value	0.99%

As at 30 June 2014, the value of the Punakaiki Rating District Scheme assets is \$1,542,856