AGENDA AND SUPPORTING PAPERS FOR COUNCIL'S JUNE MEETINGS

TO BE HELD IN THE OFFICES OF THE WEST COAST REGIONAL COUNCIL 388 MAIN SOUTH ROAD, GREYMOUTH

TUESDAY, 13 JUNE 2017

The programme for the day is:

10.30 a.m:

Resource Management Committee Meeting

On completion of RMC Meeting: Council Meeting

Councillor Workshop:

Water Quality Projects

RESOURCE MANAGEMENT COMMITTEE

THE WEST COAST REGIONAL COUNCIL

Notice is hereby given that a meeting of the **RESOURCE MANAGEMENT COMMITTEE** will be held in the Offices of the West Coast Regional Council, 388 Main South Road, Paroa, Greymouth on **Tuesday, 13 June 2017**

N. CLEMENTSON

CHAIRPERSON

M. MEEHAN Chief Executive Officer

<u>AGENDA</u> NUMBERS	<u>PAGE</u> NUMBERS	BUSIN	IESS
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3.		PRESENTATION	
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		5.2	Consents and Compliance Group
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THE WEST COAST REGIONAL COUNCIL

MINUTES OF THE MEETING OF THE RESOURCE MANAGEMENT COMMITTEE HELD ON 9 MAY 2017, AT THE OFFICES OF THE WEST COAST REGIONAL COUNCIL, 388 MAIN SOUTH ROAD, GREYMOUTH, COMMENCING AT 10.30 A.M.

PRESENT:

N. Clementson (Chairman) A. Robb, P. Ewen, A. Birchfield, T. Archer, S. Challenger, P. McDonnell, J. Douglas, F. Tumahai

IN ATTENDANCE:

M. Meehan (Chief Executive Officer), R. Mallinson (Corporate Services Manager), N. Costley (Strategy & Communications Manager), T. Jellyman (Minutes Clerk)

1. APOLOGIES

There were no apologies.

2. PUBLIC FORUM

There was no public forum.

3. MINUTES

Moved (Archer / McDonnell) that the minutes of the previous Resource Management Committee meeting dated 11 April 2017, be confirmed as correct.

Carried

Matters Arising

There were no matters arising.

4. CHAIRMAN'S REPORT

Cr Clementson reported that he attended the hearing for the Proposed Pest Plant Management Plan. He stated that a few minor changes were made.

Moved (Clementson / Ewen)

Carried

5. **REPORTS**

5.1 PLANNING AND OPERATIONS GROUP

5.1.1 PLANNING REPORT

M. Meehan advised that S. Jones is currently in Wellington with MfE and is discussing the Freshwater NPS. He also advised that G. McCormack is in Westport at a hearing and R. Beal is at a Board meeting. M. Meehan took the report as read and advised that Council has been invited to MfE to discuss issues that have been raised relating to the Clean Water package.

M. Meehan reported that three iwi groups have lodged High Court action around customary rights in the West Coast coastal marine area. He advised that Council is currently seeking advice on this and is working with Local Government NZ.

Moved (Archer / Challenger) that the report is received.

5.1.2 RESOURCE LEGISLATION AMENDMENT ACT 2017

M. Meehan spoke to this report. He stated that this legislation came into effect on 19 April. M. Meehan advised that there are some quite significant changes to the Act with natural hazards being added to Section 6 along with functionality changes to consenting. M. Meehan stated that Government is attempting to come up with a national planning template. M. Meehan advised that it will be interesting to see what the practicalities of the streamlined planning process are. He stated that a more detailed report will be brought to the June Council meeting.

Moved (Birchfield / Challenger) That the report is received.

Carried

5.2.1 CONSENTS MONTHLY REPORT

M. Meehan spoke to this report and offered to answer questions from Councillors.

Moved (Archer / Birchfield) That the May 2017 report of the Consents Group be received.

Carried

5.2.2 COMPLIANCE & ENFORCEMENT MONTHLY REPORT

M. Meehan spoke to this report and advised that only three complaints were received during the reporting period. M. Meehan stated that dairy farm inspections are now tailing off. He stated that it has been a wet season and a hard year for dairy farmers but it is pleasing to see that in spite of this 37 out of 40 dairy farms are still compliant and the three that are non-compliant only require minor remediation. M. Meehan stated that three formal warnings and two infringement notices were issued.

M. Meehan advised that the bonds recommended for release relate to Solid Energy's sale of the Strongman and Island Block mines to Birchfield Coal Mines Ltd (BCML). He stated that BCML have agreed to be bound to the obligations of Solid Energy under the Bonding Deed provided that each bond quantum set under the Bonding Deed deducts from it then remaining Escrow amount which may be applied to the same rehabilitation work as the bond quantum. M. Meehan advised that the bonds are no longer required because the money set aside in the Escrow account will be sufficient to address things caused prior to BCML taking over these sites. He answered various questions from councillors and advised that he and G. McCormack will follow up on queries from last month's meeting.

Cr Ewen expressed concern about the Solid Energy bonds, and what has been previously agreed to with regard to remedial work over the years.

Moved (Birchfield / Archer)

- 1. That the report be received.
- 2. That the bonds for CML-37-159 and CML-37-160 held by Solid Energy Ltd in relation to Strongman and Island Block mines are released.

Carried

5.2.3 VARIATION TO THE TERMS OF THE ESCROW AGREEMENT

M. Meehan stated that he would like to take this report as read. He stated that technical changes have been made to the Escrow agreement to allow for the change in mine ownership. M. Meehan advised that Council's lawyers are satisfied that the changes will not have any negative impact on Council going forward. M. Meehan advised that the other party signing this agreement is happy with the agreement as well. Cr Ewen spoke of a potential shortfall of the Government guarantee of \$20M. Cr Ewen expressed concern that the changes in the agreement could impact on the agent. He is also concerned about liability, acid mine drainage and fires. M. Meehan advised that the government is taking liability for acid mine drainage into the future and is under a separate agreement. M. Meehan stated that Council's lawyers are happy with matters relating to liability going forward and the technical changes are mainly related to the agent who is employed to manage the account. M. Meehan stated that the advice he has been given does not weaken Council's position regarding liability. Cr Archer stated that he wants to be 100% certain that Council's lawyers have this right because if they haven't then Council is going to be exposed. M. Meehan stated that in the past Councillors have had the opportunity to speak with Council's

lawyers and to ask further questions on any concerns they have. He offered to arrange this. Cr Robb asked what the timeframe is for this matter. M. Meehan responded that he is not aware of a deadline and this is more of a technical change around the agent. M. Meehan advised that the options are to put the motion or to defer the decision. He stated that to defer the decision to the June meeting is too long and a special meeting would be a better option. Cr Archer suggested that the decision be deferred and legal advice be sought and received today by Councillors and then reconvene today. Cr McDonnell agreed with Cr Birchfield and stated that he relies on Council's lawyers to give us the best advice and he is prepared to support the motion. It was agreed that M. Meehan would contact the lawyer by phone.

Moved (Birchfield / McDonnell)

That on behalf of Council the Chairman signs the revised Escrow Agreement incorporating the changes listed in this report, and also shown by way of track changes in the draft version of the agreement which accompanies this report.

Cr Archer moved an amendment to the motion.

Moved (Archer / Ewen)

That Council defers making a decision until further information is obtained and Councillors have the opportunity of talking or reviewing the legal advice.

Carried

Cr Clementson drew attention to a minor error on the last page of the agreement which says "Signature of the Mayor of the West Coast Regional Council". This needs to be corrected to "Signature of the Chairman of the West Coast Regional Council".

The meeting adjourned at 11.08 a.m.; F. Tumahai and J. Douglas left the meeting.

The meeting reconvened at 11.53

M. Meehan took a phone call from Simon Anderson from Ross Dowling Marquet Griffin, Council's lawyer. Mr Anderson was placed on speaker phone; he answered various questions from Councillors. Cr Birchfield commented that this is housekeeping relating to an agreement Council signed back in 2015 and even though the mines have been sold the existing arrangement continues on.

Councillors then returned to the original motion which was moved and seconded as above. The motion was then carried. Cr Ewen voted against.

6.0 GENERAL BUSINESS

There was no general business.

The meeting closed at 12.06 p.m.

Chairman

Date

5.1.1

THE WEST COAST REGIONAL COUNCIL

Prepared for:	Resource Management Committee – 13 June 2017
Prepared by:	Sarah Jones – Planning Team Leader
Date:	1 June 2017
Subject:	PLANNING REPORT

Councils Charging for Monitoring Permitted NES Forestry Activities

The recent amendment to the Resource Management Act (RMA) allows for a National Environmental Standard (NES) to include a provision which allows Councils, if they choose, to charge a fee to monitor activities permitted under that NES. The Ministry for Primary Industries (MPI) is proposing to implement this new amendment by making provision in the NES for Plantation Forestry (NESPF) for Councils to charge for monitoring activities permitted in the NESPF. Attached to this planning report is a draft submission generally supporting the MPI proposal. This will enable Councils to recover the costs of monitoring compliance with the NESPF, which may be considerable given that there are a lot of permitted activity rules and conditions in the NESPF. When the NESPF comes into effect, if Councils wish to charge forestry operators for monitoring compliance with the NESPF, which means the NESPF, these charges need to be set under section 36 of the RMA. Staff anticipate that the NESPF will come into force by the end of this year.

Submissions on the charging proposal close on 16 June. If Councillors have any comments on the draft submission, please forward these to planning staff by 14 June.

National Planning Standards Discussion Documents

The recent amendments to the RMA allow the Minister for the Environment to develop National Planning Standards (Standards). The Standards may specify a range of matters, including national policy direction and content of plans and regional policy statements. The purpose of the Standards is to improve consistency in plan and policy statement structure, format and content so they are easier to prepare, understand, compare and comply with.

The first set of Standards focus on plan and policy statement components that the Minister feels will benefit the most from standardisation. The Minister is required to Gazette the first set of Standards within two years of Royal Assent (by 19 April 2019).

The first set of Standards will likely include:

- district plan structure
- regional plan and policy statement structures
- district and regional plan form
- zones and overlays
- definitions
- incorporation of national direction
- metrics
- administrative provisions
- mapping
- accessibility of plans online.

The Ministry for the Environment has prepared a series of discussion papers on each of the key elements of the proposed first set of Standards. These discussion papers outline the context, evidence, approach and options for each type of Standard. In each paper, there is a series of questions seeking feedback on the options proposed or the approach presented by 31 July 2017. Staff are currently considering the content of the Discussion Papers and will prepare a formal response to these for consideration by Council.

Havelock North Drinking Water Inquiry

Stage 1 of the Inquiry into Havelock North Drinking Water was released on May 10. It addresses the causes of the water contamination incident and assesses the conduct of those responsible for providing safe drinking water in Havelock North. One of the key findings was that:

"There was a critical lack of collaboration and liaison between the Regional Council and the District Council. The absence of regular and meaningful cooperation resulted in a number of missed opportunities that may have prevented the outbreak."

The Government is now considering the findings of Stage 1 of the Inquiry and will respond in due course. Stage 2 will address systemic issues and provide recommendations about managing water supply across New Zealand to safeguard against such an outbreak occurring in the future. It is due to be reported back to the Attorney-General by 8 December 2017.

RECOMMENDATION

That the report is received.

Sarah Jones Planning Team Leader



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X June 2017

Spatial, Forestry and Land Management Regulation and Assurance Branch Ministry for Primary Industries P O Box 2526 Wellington 6061

Dear Sir/Madam

Submission on Discussion Document: "Councils charging to monitor permitted activities in the National Environmental Standard for Plantation Forestry"

Thank you for the opportunity to make a submission on the above Discussion Document. Our submission is:

The West Coast Regional Council (WCRC) supports the proposal to make provisions in the National Environmental Standard for Plantation Forestry (NESPF) for councils to charge for monitoring activities that are permitted in the NESPF. This will enable councils to recover the costs of monitoring compliance with the NESPF, which may be considerable given that there are a lot of permitted activity conditions and requirements for management plans in the NES.

We support the definition of monitoring outlined in No 5 of the Discussion Document as including either "....paperbased assessments or site visits....". Checking management plans that are required to be submitted, to see if they comply with the NESPF is an important part of compliance monitoring work. Monitoring management plans ensures that the plans are of satisfactory quality for minimising environmental impacts, that they implement the conditions of the NESPF, and that forestry operators are adhering to the plans. Compliance monitoring of management plans can take up a considerable amount of a council officer's time.

Our final comment is that we are uncertain if there will be a condition in the NESPF that any management plans submitted to the local authority must be approved prior to commencing work. Unless this requirement is in the NESPF councils do not have any control over substandard plans being submitted. Any management plan submitted needs to be audited and either rejected or approved by the council officer. This is routine good practice, and is undertaken when monitoring compliance of plans required by resource consents.

Finally previous cost benefit analysis work undertaken on the Plantation Forestry NES was marginally positive, the last iteration included provision for Council to essentially fund the monitoring work required. Given these changes it is suggested that the cost benefit analysis for the Plantation Forestry NES should be relooked at.

Our contact for service is: Lillie Sadler Senior Resource Planner Ph: -03 768 0466 x242 Email: Is@wcrc.govt.nz

Yours faithfully

Sarah Jones Planning Team Leader

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THE WEST COAST REGIONAL COUNCIL

Subject:	CONSENTS MONTHLY REPORT
Date:	1 June 2017
Prepared by:	Karen Glover - Consents & Compliance Administration Officer
Prepared for:	Resource Management Committee

Consents Site Visits undertaken 27 April – 31 May 2017

19/05/17	RC-2017-0052 – Rosco Contracting Ltd, Dry bed gravel extraction, Inangahua River	Visited site with applicant to observe areas for gravel extraction and GPS stretch of river from which gravel can be extracted.
19/05/17		Viewed sections of river where the protection works around the power poles is to be undertaken.

Non-Notified Resource Consents Granted 27 April – 31 May 2017

CONSENT NO. & HOLDER	PURPOSE OF CONSENT
RC-2017-0024 The Christian Church Community	To disturb the bed of the Ahaura River to construct a diversion channel and to undertake river protection works.
Trust and Canaan Farming Dairy Ltd	To disturb the riparian margin and river bed associated with river protection works.
	To take gravel from the Ahaura River.
	To divert water within the Ahaura River.
	To discharge contaminants, namely sediments to water associated with water diversion and river protection works within the Ahaura River.
RC-2017-0039 Westroads Ltd	To disturb the dry beds of the following locations for the purpose of extracting gravel: Canoe Creek, Granite Creek, Grey River at St Kilda, Grey River at Kiwi Point, Grey River at Taylorville, Grey River at Omoto, Grey River at Cobden Bridge, Haupiri River, Crooked River, Crooked River downstream of the Moana- Rotomanu Road bridge, Taramakau River at Inchbonnie, Taramakau River downstream of the William Stewart Bridge, Taramakau River downstream of the SH6 road, rail Bridge, Hokitika River upstream of the SH6 bridge, Hokitika River near Kaniere-Kowhitirangi Road, Kokatahi River, Donnelly Creek at Ross, Kakapotahi River, Waitaha River, Wanganui River, Poerua River, Whataroa River, Waitangitaona River, Waiho River, Docherty Creek, Cook River, Bullock Creek, Karangarua River, Haast River, Turnbull River, Arawhata River, Jackson River.
RC-2017-0042 PJ Robson & MD Hann	To disturb the dry bed of the Mahitahi River for the purpose of gravel extraction.
RC-2017-0043 R Morwood	To discharge treated onsite sewage wastewater to land from a domestic dwelling at Lot 1 DP 382752, Coast Road, Barrytown.
	To undertake earthworks within 50 metres of the Coastal Marine Area at Lot 1 DP 382752, Coast Road, Barrytown.
RC-2017-0046 DR Beatson	To disturb the Coastal Marine Area within Mining Permit 41913 for the purpose of black sand gold mining, Barrytown Beach.
	To take sand within Mining Permit 41913 for the purpose of black sand gold mining, Barrytown Beach.
	To deposit sand/tailings to the Coastal Marine Area within Mining Permit 41913 associated with black sand gold mining activities, Barrytown Beach.

RC-2017-0049 Department of Conservation	To discharge treated onsite sewage wastewater to land from a campsite toilet block at Lake Paringa, SF 5 Paringa.
RC-2017-0053 Westpower Ltd	To disturb the bed of the Inangahua River to undertake protection works (rock protection and stream training).
	To permanently divert water in the Inangahua River from protection structures and as a result of stream training.
RC-2017-0055 MBD Contracting Ltd	To disturb the bed of the Taramakau River to install and remove a temporary culvert and Access track.

84 whitebait stand resource consent files were also granted during this period. 477 out of 657 (72.6%) of whitebait stand resource consent files have now been granted. 566 applications (86.1%) have been received to date.

Changes to and Reviews of Consent Conditions Granted 27 April – 31 May 2017

CONSENT NO. & HOLDER	PURPOSE OF CHANGE/REVIEW
RC96051-V1 Birchfield Coal Mines Ltd	To increase the area for gold mining activities at Giles Creek Coal Mine, Reefton.
RC11117-V4 Amalgamated Mining Ltd	To increase the disturbed unrehabilitated gold mining area at Notown.
RC11178-V3 Department of Conservation	To add an additional dry bed gravel extraction area, Kohaihai River.
RC-2016-0010-V1 Greid Mining Ltd	To increase the disturbed unrehabilitated gold mining area at German Gully / Stafford.
RC-2016-0113-V1 DM Lucas	Inclusion of new mining areas and increase of maximum unrehabilitated area of gold mining activities, Greenstone River.

Notified or Limited Notified Resource Consents granted between 27 April - 31 May 2017

CONSENT NO. & HOLDER	PURPOSE OF CHANGE/REVIEW
RC-2017-0016 Okuru Enterprises Ltd	To occupy space in the Coastal Marine Area (CMA) with a pipeline and mono-buoy, Neils Beach.
	To construct and maintain structures (pipeline and mono-buoy) in the CMA, Neils Beach.
	To alter the foreshore or seabed to construct, maintain and operate a pipeline & mono-buoy, Neils Beach.

The Te Kuha Mine application was jointly notified with Buller District Council, submissions closed on 18 May 2017. In total, 744 submitters made submissions; 113 in support, 3 neutral and 628 in opposition. A hearing is expected to be held in September in Westport. <u>Public Enquiries</u>

50 written public enquiries were responded to during the reporting period. 39 (78%) were answered on the same day, and the remaining 11 (22%) within the next ten days. 15 LGOIMA requests were responded to.

RECOMMENDATION

That the June 2017 report of the Consents Group be received.

5.Z.Z THE WEST COAST REGIONAL COUNCIL

Prepared for:	Resource Management Committee – 13 June 2017
Prepared by:	Gerard McCormack – Consents and Compliance Manager
Date:	1 June 2017
Subject:	COMPLIANCE & ENFORCEMENT MONTHLY REPORT

Site Visits

A total of 162 site visits were undertaken during the reporting period, which consisted of:

Activity	Number of Visits
Resource consent monitoring	26
Mining compliance & bond release	10
Complaint related	11
Dairy farm	115

Out of the 162 total site visits for the reporting period, 135 visits were compliant, 27 visits were non-compliant.

• Mining visits

Gold Mining: 6 alluvial gold mining inspections were carried out during the month.

Coal Mining: 4 coal mining inspections were carried out during the month.

• Dairy Farms

115 dairy farm inspections were carried out, 99 farms were graded compliant, and 16 farms were graded non-compliant, which resulted in some of the farmers being required to undertake remedial action.

Complaints/Incidents between 27 April 2017 & 1st June 2017

The following six complaints/incidents were received during the reporting period:

Activity	Description	Location	Action/Outcome	INC/Comp
Disturbing the river bed	Complaint received that a digger was working in a creek causing sedimentation in the water	Blackball	Enquiries established that the GDC were doing emergency works. No breach of the regional rules.	Complaint
Earthworks	Complaint received that earth works were being undertaken on erosion prone land without a resource consent	North Beach	The site was investigated and established that an existing track was being upgraded. Enquiries are still ongoing.	Complaint
Stormwater	Complaint received that a blocked drain was causing stormwater issues to a neighbouring property	Stafford	Enquiries established that there was no breach of the regional rules.	Complaint
Discharge to water	Complaint received that stock in a paddock may have contaminated the neighbouring properties water bore.	Totara Flat	The site has been investigated and enquiries are continuing.	Complaint

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Activity Description		Location	Action/Outcome	INC/Comp	
Discharge to water	Complaint received that a small creek appears to have been contaminated by diesel or petrol.	Runanga	The site was investigated and found that the creek had been contaminated with fuel which was likely to be a small quantity. Council staff placed a hydro carbon boom into the creek to mitigate the effects. The source of the discharge was unable to be traced.	Complaint	
Fishing vessel ran aground The fishing boat Kutere ran aground on Cobden Beach		Cobden Beach	Council staff attended the scene to ensure that the fuel was removed from the boat and a recovery plan put in place.	Incident	

Formal Enforcement Action

Two Formal Warning notices were issued during the reporting period.

Activity	Location
Gravel Extraction	Hokitika River
Gravel Extraction	Hokitika River

Infringement Notice

Activity	Location
Gold Mining discharge	Scandinavian Hill, Stafford
Gold Mining discharge	Scandinavian Hill, Stafford

Mining Work Programmes and Bonds

The Council received the following 5 work programmes during the last reporting period. 4 work programmes are still to be approved.

Date	Mining Authorisation	- Holder Location		Approved
26-04-17	RC-2017-0004	Red Jack Resources Ltd	Waimea	Yes
26-04-17	RC-2016-0113	Darcy Lucas	Greenstone	In progress
28-04-17	RC-2015-0031	Waipuna Lime Ltd	Waipuna	In progress
08-05-17	RC10273	Blacktopp Mining Ltd	Rimu	In progress
25-05-17	RC09031	Henry Adams Contracting	Hou Hou	In progress

The following bonds were received:

Mining Authorisation	Holder	Location	Amount
RC-2015-0031	Waipuna Lime Ltd	Waipuna	\$6,000
RC01150	Birchfields Ross Mining Ltd	Ross	\$65,000

Bonds to be released:

Mining Authorisation	Holder	Location	Amount
RC03175	Solid Energy	Cypress	\$7,870,000
RC11088	Solid Energy	No.2 South	\$105,000
CML37-161	Solid Energy	Denniston	\$1,175,000
RC-2016-0063	Solid Energy	Peerless Pit	\$43,000
RC10217	Solid Energy	Reddale	\$3,835,000
RC01285	Solid Energy	Banks	\$5,000

Solid Energy New Zealand Ltd (Solid Energy) has entered into an agreement for sale and purchase with Moore Mining Limited (Moore Mining), under which various assets including Banks, Burkes Creek, Peerless and Reddale will be sold to Moore Mining. Moore Mining has put in place bank surety bonds for the amount outlined in column five in the table below, which will come into effect once the sale has been completed. The closure amounts estimated in the table have been calculated by Lane and Associates Limited (Lane Associates) following an assessment carried out over the last three months.

Site	Closure Cost Estimate (\$)	Available Crown Indemnity (\$)	Existing Council Bond (\$) (posted by Solid Energy)	New bonds to be put in place by new miner (\$)
Reddale	340,000	394,521	3,835,000	0
Peerless	50,000	0	43,000	50,000
Banks	170,000	0	5,000	170,000
Burkes Creek	100,000	49,156	0	50,844

Solid Energy has entered into an agreement for sale and purchase with BT Mining, under which various assets including Cypress, No.2 South and Denniston. Lane Associates are in the process of carrying out a new bond assessment to identify any shortfall between the Escrow Amount and the amount required to meet non-AMD rehabilitation requirements for the Stockton Plateau. BT Mining have signed a deed agreeing to provide a bond covering any shortfall no later than 8 weeks following settlement of the purchase of the Stockton Plateau assets in favour of the West Coast Regional Council and Buller District Council. The Council's lawyers have reviewed and are comfortable with this approach and will be available to answer any during the meeting.

RECOMMENDATIONS

- 1. That the June 2017 report of the Compliance Group be received.
- 2. That that Solid Energy Bonds for CML37-161, RC03175, RC11088, RC-2016-0063, RC10217 and RC01285.

Gerard McCormack
Consents and Compliance Manager

5.2.3

THE WEST COAST REGIONAL COUNCIL

Prepared for:	Resource Management Committee – 13 June 2017
Prepared by:	Gerard McCormack Consents and Compliance Manager
Date:	31 May 2017
Subject:	FISHING VESSEL KUTERE

On Monday 29 May 2017 at 1:45am the fishing boat, named the Kutere, based out of Nelson ran aground on Cobden Beach, with an estimated 2000 litres of diesel on board.

Sea conditions were reported as being calm at the time of the grounding and remained so when the incoming tide peaked at 1:30pm, therefore the boat did not breakup and remained intact.

Council officers became aware of the grounding at 8:00 am and immediately set about phoning the owner, insurance company, maritime NZ officers and contractors to ensure fuel was recovered from the vessel.

At around 3:30 pm when the tide receded, Fosters Contracting Ltd began work on creating an access way from the road down to the boat.

Once the track was created Liddell Contracting Ltd provided equipment and man power to remove the fuel from the Kutere using an electric pump. They were able to recover 1750 litres of diesel from the boat taking it away in two, 1000 litre pods. At the same time as the diesel was being removed worker's from Talley's unloaded almost three tonnes of fish.

The boat was assessed by the insurance company who determined that due to structural damage it could not be refloated. The boat has now been pulled further up the beach above the high tide area where it is in the process of being deconstructed in situ and taken away by trucks.

RECOMMENDATION

That the report be received.

Gerard McCormack Consents & Compliance Manager



Photograph 1: Morning of the incident taken around 08.30.



Photograph 2: Recovering the fuel from the Kutere into 1000 litre pods.



Photograph 3: Some of the crowd visible in the back ground. Police were on site to assist with crowd control.



Photograph 4: The Kutere pulled up the beach above the high tide line where it will be dismantled and trucked away.

5.2.4

THE WEST COAST REGIONAL COUNCIL

Prepared for:	Resource Management Committee – 13 June 2017
Prepared by:	Gerard McCormack Consents and Compliance Manager
Date:	31 May 2017
Subject:	Discharge of Ammonia Contaminated Water – Johnson Bros Transport Prosecution – Alternative Justice Pathway

PURPOSE

The purpose of this report is to update the committee on the outcome of a recent prosecution where the Council used its alternative justice pathway in accordance with the Enforcement Policy.

BACKGROUND

Johnson Bros Transport (2006) Limited operate a trucking – freight company based in Stafford Street Westport. The Council laid two charges in the Westport District Court against the company for the discharge of ammonia contaminated water in early 2016.

Following an early admission of guilt, the Council offered the option of the company entering into the Council's alternative justice pathway rather than proceeding to court for sentencing.

A court mediator was appointed and it was agreed between the parties, that Johnson Brothers would construct and improve a walkway from Ohau Domain to the beach below. The existing track had eroded away making it difficult for those using it to access the beach area.

The work has recently been completed which involved improvements to the pathway and the construction of a timber staircase. These works have been carried out to a high standard and have significantly improved the access to the beach. Overall it is estimated the total cost of these works was around \$40,000.

Council has also received confirmation from the Domain Board that they have money set aside for plantings and grassing of the embankments in the coming months.

As the work has now been completed to Council satisfaction the charges against Johnson Brothers have been withdrawn.

RECOMMENDATION

That the report be received.

Gerard McCormack Consents & Compliance Manager

Photographs of the walkway



Photograph 1: Start of the track on Ohau Domain



Photograph 2: View of the track looking back toward Ohau Domain



Photograph 3: Wooden staircase installed down to the beach replacing the previous arrangement



Photograph 4: View of the beach below and staircase leading down to it



Photograph 5: View from the beach looking back towards the staircase



Photograph 6: View of the beach which can be accessed at low tide

COUNCIL MEETING

THE WEST COAST REGIONAL COUNCIL

Notice is hereby given that an **ORDINARY MEETING** of the West Coast Regional Council will be held in the Offices of the West Coast Regional Council, 388 Main South Road, Greymouth on **Tuesday, 13 June 2017** commencing on completion of the Resource Management Committee Meeting

A.J. ROBB	M. MEEHAN
<u>CHAIRPERSON</u>	CHIEF EXECUTIVE OFFICER

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7.		GENERA	BUSINESS

3.1 THE WEST COAST REGIONAL COUNCIL

MINUTES OF THE MEETING OF THE COUNCIL HELD ON 9 MAY 2017, AT THE OFFICES OF THE WEST COAST REGIONAL COUNCIL, 388 MAIN SOUTH ROAD, GREYMOUTH, COMMENCING AT 11.10 A.M.

PRESENT:

A. Robb (Chairman), N. Clementson, P. Ewen, A. Birchfield, T. Archer, S. Challenger, P. McDonnell

IN ATTENDANCE:

M. Meehan (Chief Executive Officer) R. Mallinson (Corporate Services Manager), N. Costley (Strategy & Communications Manager), T. Jellyman (Minutes Clerk)

1. APOLOGIES:

There were no apologies.

2. PUBLIC FORUM

There was no public forum.

3.1 CONFIRMATION OF MINUTES

Moved (Archer / Challenger) that the minutes of the Council Meeting dated 11 April 2017, be confirmed as correct.

Carried

Matters arising

Cr Archer asked for an update on Section 33 Transfer of Functions from Westland District Council. M. Meehan responded that he has gone back to WDC and advised them that Council will not be taking on any liability prior to when we take over this function. M. Meehan advised that he has also asked for more detailed information on the quantum of what is being taken over. It was confirmed that should the arrangement not work out then Council is not bound to this.

REPORTS:

4.1 ENGINEERING OPERATIONS REPORT

M. Meehan took the report as read. He advised that the resource consent for the Whitehorse Quarry has been granted, staff will now arrange for the tender to be let and for prices for the seawall extension to be put to the community for consultation.

M. Meehan reported that staff are liaising with NZTA to progress work in the Granity / Ngakawau and Hector area and are working through costs for erosion protection work in this area.

M. Meehan reported that 203 submissions were received on the Buller River Flood Consultation. He advised that the community feedback has revealed that there is no definitive answer from the community on where to from here. He stated that Council has decided to reform the working group and to include key members from the community who have expressed opinions and have knowledge of the area. M. Meehan stated that this is a long consultation period but it is very important for Westport and it is important to get a definitive answer on what people want and what will work well for Westport.

M. Meehan advised that the Niwa report on Carters Beach is still awaited but he provided an interim update. He stated that Niwa have advised that the report has taken longer than anticipated due to circumstances beyond their control. The interim report confirms that the erosion rate at Carters Beach appears to be consistently slowing since 2003 and it is expected that it will stop before it reaches any Council assets and it will take over a decade to reach Marine Parade. M. Meehan advised that he expects to have a full report for the June meeting. Cr Archer stated that he does not agree with the conclusion reached regarding the Buller River consultation as 30% of those surveyed did not specify a preferred option but almost all said that something needs to be done.

Cr Archer feels that plus 75% of people want something done and only 24% said do nothing. Cr Archer agreed that Council does need to go back to the community and it is a positive step to consult with individuals. Cr Archer stated that the best possible outcome is needed for Westport and this may take longer. Cr Archer expressed his disappointment with the Niwa report on Carters Beach being late. He stated that he would prefer to wait until the report is to hand before arranging a community meeting.

Moved (Archer / Birchfield)

- 1. That the report is received.
- 2. That a community meeting for Carters Beach is convened once the Niwa report has been received.

Carried

The meeting adjourned at 11.31 and reconvened at 11.32

4.1.2 PROPOSED REMEDIAL WORKS OF KANIERE RATING DISTRICT ROCKWALL

M. Meehan spoke to this report. He stated that Council has been monitoring the erosion line in this rating district for several years and it has become worse over the last two years. M. Meehan stated that a survey has been sent out to the rating district along with the costs of the remedial work and the financial implications. He stated that the 13 out of 36 surveys were returned and of these just over half want to proceed with the proposed works. M. Meehan advised that Council Engineers spoke with those who were not in favour of proceeding with the works and explained the situation to them to enable better understanding. M. Meehan advised that the work will now be tendered out so that actual costs can then be included into the Annual Plan and to also allow the community to submit on the Annual Plan. Cr McDonnell commented that there are concerns that rock work on the other side of the river might be contributing to the problem and there are also concerns from residents as to whether or not this rock work has been consented. Discussion took place on costs; Cr Archer asked if it is likely that NZTA would contribute to the costs. M. Meehan advised that this is a district highway and not a main state highway but this option will be explored by staff. It was agreed that Council's Compliance staff will follow up on the rock work on the opposite side of the river.

Moved (Archer / Clementson)

- 1. That Council instructs staff to tender the proposed works.
- 2. That Council include the proposed works in the upcoming 2017 / 18 Annual Plan for consultation.

Carried

4.2 CORPORATE SERVICES MANAGER'S REPORT

R. Mallinson advised that he has circulated electronic copies of his report. He reported that the surplus for the nine months was \$1.56M; and this has improved substantially during February and March. R. Mallinson advised that the Investment Portfolio is performing well. He stated that VCS have now completed most of their contracts for the year. R. Mallinson confirmed that the presentations for the management of Council's investment portfolio will be held on 1 June. R. Mallinson answered various questions from Councillors. It was noted that the work that VCS does has a huge benefit for the West Coast and they are important asset for the region in helping the country to become predator free.

Moved (Archer / Clementson)

- 1. That this report be received.
- 2. That Council agree that 1 June 2017 is the date that presentations regarding management of the Council Investment Portfolio will be received.

Carried

4.3 2017 LGNZ EXCELLENCE AWARDS NOMINATION

N. Costley spoke to this report and advised that the project nominated is the West Coast Untamed Natural Wilderness branding which has been entered into the Excellence Award for the Best Practice Contribution to Local Economic Development. N. Costley stated the nomination covers the branding work carried out by Council's Economic Development Manager, K. Stratful in conjunction with Tourism West Coast. She advised that the winners will be announced at the LGNZ Conference dinner on 25 July. Cr Archer stated that the nomination is

3 excellent and very impressive. Congratulations were passed on to N. Costley for her work on the nomination. The Chairman stated that good progress is being made in this area.

Moved (Birchfield / Challenger) That Council accept this report.

Carried

5.0 CHAIRMANS REPORT

The Chairman spoke to his report and advised that the recruitment process for the appointment of the Council appointee on DWC is progressing well.

The Chairman reported that the Governance Croup met with the consultants engaged to carrying out work on the economic development arrangements for the West Coast. He stated that a presentation to Councillors will be held tomorrow in Reefton to discuss progress to date.

Moved (Robb / Archer) that this report is received.

Carried

Carried

6.0 CHIEF EXECUTIVE'S REPORT

M. Meehan spoke to his report and took it as read. He stated that a further budget workshop will be held following this meeting. He reported that water and the debate around swimmability, RMA changes, natural hazards and civil defence were discussed at the recent Regional Sector Group meeting. M. Meehan advised that Hon Gerry Brownlee is leading a review of civil defence, which will be focused on response.

M. Meehan advised that the meeting scheduled with Westland Milk Products was cancelled. M. Meehan advised that he attended the CEG meeting yesterday and was elected as Chairperson.

Moved (Challenger / Ewen) *that this report is received*.

GENERAL BUSINESS

Cr Birchfield asked how the 45 submissions received on the wetlands (Plan Change 1 to the Regional Land and Water Plan) are progressing. M. Meehan advised that matters around the hydrological buffers have been raised. He stated that S. Jones (Planning Team Leader) has contacted the submitters and advised them that a small amount of work is required and Council will be in touch once this work has been completed.

The meeting closed at 11.53 a.m.

Chairman

Date

3.1.1

THE WEST COAST REGIONAL COUNCIL

MINUTES OF A SPECIAL MEETING OF THE WEST COAST REGIONAL COUNCIL HELD ON 15 MAY 2017, AT THE OFFICES OF THE WEST COAST REGIONAL COUNCIL, 388 MAIN SOUTH ROAD, GREYMOUTH, COMMENCING AT 10.00 A.M.

PRESENT:

A. Robb (Chairman), T. Archer (via teleconference), A. Birchfield, P. Ewen, S. Challenger, N. Clementson (via teleconference), P. McDonnell

IN ATTENDANCE:

M. Meehan (Chief Executive Officer), R. Mallinson (Corporate Services Manager), T. Jellyman (Minutes Clerk)

1. APOLOGIES:

There were no apologies.

Moved (Ewen / Challenger) *That Council suspends Standing Orders to enable Crs Archer and Clementson to join the meeting via teleconference.*

Carried

2. ANNUAL PLAN 2017 / 2018

The Chairman welcomed everyone to the meeting.

R. Mallinson spoke to this report and advised that in accordance with the current legislation the document that goes out for public consultation is the Consultative Document. He stated that Council is only required to consult with the public if there is significant or material difference between the Annual Plan and the Long Term Plan. R. Mallinson advised that the protection work for Neil's Beach, Cobden and Punakaiki, and the Regional Emergency Management proposal were not foreseen in the 2015 / 25 Long Term Plan, and therefore public consultation is required. R. Mallinson stated that at the time of writing this report the Annual Plan still had a few pages to complete, he advised that this work will be completed by the close of business today. R. Mallinson spoke to matters relating to capital expenditure and advised that loans will need to be raised for Kaniere (\$130,000), Cobden (\$160,000) and Punakaiki (\$356,000) if the three projects go ahead.

R. Mallinson advised that there are minor changes to staff chargeable rates in the Annual Plan for this year along with an amendment to the gravel charge agreed to by Councillors in September 2016. He stated that Section 95A of the Local Government Act requires Council to formally adopt the information relied on by the content of the consultation document prior to adopting the consultation document. R. Mallinson answered various questions from Councillors regarding the proposed works for Punakaiki and Kaniere and it was agreed that once tender prices are to hand further consultation would be arranged. Extensive discussion took place on rock prices. R Mallinson advised that make safe costs for Kiwi quarry were significant at around \$76,000. Discussion ensued and it was agreed that rock prices would be increased incrementally over the next three years. Extensive discussion took place on quarries and the work that is now required to meet health and safety regulations and make safe requirements. R. Mallinson explained the financial requirements for the running of guarries. He encouraged Councillors to consider wiping the accumulated quarry deficit as this could be offset against general equity. R. Mallinson stated that by staggering the increase in rock prices and with realistic price per tonne this will ensure the quarries future viability. M. Meehan stated that usually the setting of rock prices per tonne is an operational matter but in view of the implications for the budget the significant rise in rock prices it has come to Council for their input. Discussion took place and it was agreed that funds from would be put aside from this year's surplus to go towards the Make Safe work for guarries. Cr Challenger stated that it may be that there is a loss for a couple of years but once the rock price levels out then a profit could then be made. Cr Challenger stated that it is important that the rock prices catch up over the next three years. R. Mallinson suggested that staff do further work on guarry budgets and

report back to Councillors with the amended analyses. Discussion took place on the future of quarries. R. Mallinson advised that he will be working on identifying deficits that will need to be run this year and next year on the basis that they will be recovered subsequently. R. Mallinson advised that the writing off of the quarry deficit will not have any impact on the 2017 / 18 budgets.

M. Meehan answered questions regarding resource consent fees for septic tanks.

All present agreed with the dates for the special meetings for the hearing of submissions on 27 June and the confirmation of the Annual Plan on 30 June.

R. Mallinson stated that he would report back to the Councillors as soon as possible on the impact of increasing the rock price to \$17.00 per tonne once he has completed this work.

Moved (Challenger / Birchfield)

- 1. That this report be received.
- 2. That Council formally adopts the budgets, financial strategies and other information (including proposed protection scheme works and the associated rating impacts) that are relied on in the consultation document.
- *3.* That once tenders are received for works in Punakaiki and Kaniere, further consultation with residents will be held to inform them of the accurate costings.
- 4. That the Consultative Document be approved for public consultation.
- 5. That the Consultative document be made publically available via the "Messenger" feature on 24 May 2017.
- 6. That the closing date for submissions be 23 June 2017.
- 7. That the hearings on submissions on the consultative document take place on Tuesday 27 June 2017.
- 8. That decisions be made on submissions and the final Annual Plan for 2017/18 be confirmed at a Special Council meeting on 30 June 2017.

Cr Robb thanked those present for their attendance.

The meeting closed at 10.38 a.m.

Chairman

Date

THE WEST COAST REGIONAL COUNCIL

4.1

Prepared for:Council Meeting – 13 June 2017Prepared by:Paulette Birchfield – Engineer, Brendon Russ - EngineerDate:5 June 2017Subject:ENGINEERING OPERATIONS REPORT

WORKS COMPLETED AND WORKS TENDERED FOR

Wanganui Rating District

Work involving the placement of 1,500 tonne of rock to replace a groyne that was destroyed during flooding in April 2017, was awarded to Arnold Contracting at a price of \$27,000 (GST exclusive).

Inchbonnie Rating District

Work involving the placement of 570 tonne of rock into slumped rock riprap from the flood damage in March 2017, was awarded to GH Foster Contracting at a price of \$12,255 (GST exclusive).



Taramakau Rating District

Work involving the placement of 1,500 tonne of rock into slumped rock riprap from flood damage in March 2017, was awarded to Henry Adams Contracting at an initial cost of \$24,750 (GST exclusive). In consultation with the Rating District a variation of an additional 500 tonne of rock was added to the contract at a rate of \$18.50/T (GST exclusive). The final contract price was \$34,000 (GST exclusive).



Kongahu Swamp

Significant weed build-up in the Contour Channel (Blackwater Drain) in the Kongahu Swamp was restricting flow out to Granite Creek. SM Lowe Contracting Ltd removed the weed up to the cattle bridge on the western side, and half-way up the eastern side (access is restricted along this bank). The works were undertaken for \$402.50 (2.5 hours).



Contour Channel, looking upstream prior to the clean-out



Contour channel, looking upstream following clean-out.

Granite Creek

During April 2017, on behalf of the Karamea Rating District, SM Lowe Contracting Ltd removed willows along the banks of Granite Creek from above the Blackwater Drain Bridge (Contour Channel outlet) to approximately 1.5km upstream. The willows were growing out into the channel and were holding up sediment, and causing an increase in flood heights. The willows below the Contour Channel outlet were cleaned out in November 2015.

The willows were first cut off at the base, then an excavator was used to drag the tops out and placed in several stockpile areas back from the creek. The work was completed, as per the quote, for \$6,315(GST exclusive).



Granite Creek bed, prior to removal of willows.

FUTURE WORKS

Mokihinui Rating District

Reconstruction of several sections of the Mokihinui sacrificial seawall is due to be undertaken in June.

Kaniere Rating District

A tender is currently out for the construction of 220m of rock riprap up stream of the Kaniere bridge. This will use 5,500 tonne of rock that will be sourced from the WCRC Camelback Quarry. This tender closes 4pm, Thursday 25 May 2017. A special rating district meeting will then be called and presented with the recommended Contractor and price. The attendees at the meeting will then vote if they would like the works to proceed.

Tender price range was \$140,975.00 - \$153,735.00 +GST

Carters Beach

The NIWA report will be circulated prior to the Council meeting, once it has been received.

ONGOING WORKS

Karamea Rating District

The contract to reconstruct the stopbank behind the Karamea School is close to completion. The contractors have been unable to access a short section of the bank due to the installation of a wire stay from a telecommunications pole. Discussions are ongoing with the service provider to remove the stay and allow the contractors access to complete the work.

Coal Creek RD

Quotes were requested for the continuation of works to divert some of the Grey River away from the erosion scour upstream of the Coal Creek RD stopbank. Three quotes were received lowe, with the lowest conforming quote of \$4,900 accepted. GH Foster Contracting were engaged to place 200 tonnes of Kiwi Quarry rock to create a small rock spur upstream of the scour. The works were undertaken during April 2017. An additional 47 tonne was placed in the spur to allow it to better tie into the bank. The total cost of the work was \$6,051.50 (GST exclusive).

Punakaiki RD

Due to a drop in the beach level as well as high seas in early 2017, caused several areas along the Punakaiki Seawall revetment to slump. Quotes were requested from the contractors for the placement of 500 tonnes of Kiwi Quarry rock. Prior to the work starting, some additional slumping occurred and the required tonnage increased, as well as a requirement to top up the crest as the running course on the crest of the wall had washed out between Webb and Mabel Streets. GH Foster Contracting Ltd were engaged to undertake the works for an initial cost of \$14,750 for 500 tonnes. Further slumping of the revetment meant the total rock tally increased to 1273 tonnes.

Quarry waste was used to fill under the deeper slumped areas, and the quarry rock placed on top. Kiwi quarry waste was used to rebuild the crest, and a running course of pit run 13 mile spread on top. The total cost of the works was \$45,063.50 (GST exclusive).

Punakaiki Rating District

Resource Consent has been granted for the Whitehorse Quarry rock extraction. This allows Council to proceed with letting a tender for the rock removal and construction of the seawall extension. Following the receipt of tenders Council will consult with the Punakaiki Rating District and include this as part of the 2017/18 Annual Plan consultation.

Granity/Ngakawau/Hector Erosion

Staff are assessing the advice from the consultant and discussion with NZTA and will provide a report to the July Council meeting.

Buller River Flood Consultation

Council River Engineer and Quarry manager have met with several prominent leaders within the community with the intent of providing a recommendation for the inclusion of of some to the working group.

Rapahoe

Following their investigation, NIWA have provided their report into the erosion issues at Rapahoe. The NIWA report provides a medium to long term risk reduction strategy of relocation vs continuing to maintain, upgrade or extend the existing rock protection. The report has been circulated to the property owners directly affected.

A copy of the NIWA report is attached

<u>Cobden</u>

Following their investigation, NIWA have provided their report into the erosion issues at Cobden.

A copy of the NIWA report is attached

QUARRIES

Quarry	Opening Stockpile Balance	Rock Used	Rock Quarried	Closing Stockpile Balance
Blackball	1,650	0	0	1,650
Camelback	16,417	0	0	16,417
Inchbonnie	13,821	0	0	13,821
Kiwi	4,018	4,190	500	328
Okuru	400	0	0	400
Whataroa	17,940	0	0	17,940
Totals	54,246	4,190	500	50,556

Quarry rock movements for April 2017

RECOMMENDATION

That the report is received

Randal Beal Operations Manager



10

Managing and adapting to coastal erosion at Cobden Beach

Prepared for West Coast Regional Council

May 2017

NIWA - enhancing the benefits of New Zealand's natural resources

www.niwa.co.nz

Prepared by: Michael Allis

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NIWA CLIENT REPORT No:2017137HNReport date:May 2017NIWA Project:ELF17210

Quality Assurance Statement				
E forthe	Reviewed by:	Doug Ramsay		
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Q M thils	Approved for release by:	Murray Hicks		

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	Changes to the coastline at Greymouth 1875-2014. Jellyman Park rock protection and beach front. Cobden Beach at 0.6 km from the tiphead, (at carpark), looking north towards Point Elizabeth. Cobden Beach at 0.7 km from the tiphead (100 m north of carpark), looking north toward Point Elizabeth. Cobden Beach at 1.4 km from the tiphead (opposite Monro Road) I ooking south. Cobden Beach at 1.4 km from tiphead (opposite Monro Road) looking north towards Point Elizabeth. Cobden Beach at 2.9 km from tiphead (opposite 162 North Beach Road) looking north towards Point Elizabeth. Cobden Beach at 5 km from tiphead (end of North Beach Road) looking north towards Point Elizabeth. Jellyman Park, Cobden.

Executive summary

This report has been prepared for West Coast Regional Council (WCRC) to aid the decision-making processes associated with management of Cobden Beach. The investigations undertaken as part of this assessment includes a site visit, review of aerial photographs and recent literature. WCRC requested advice on 1) the likely implications of recent in-situ coastal protection works, and 2) recommendations for effective and feasible options that allow long-term management and protection of infrastructure and properties along the Cobden Beach foreshore.

Overall, Cobden Beach is not experiencing current long-term and widespread erosion and is relatively healthy and well-stocked with a wide gravel beach and vegetation between the beach face and road infrastructure or private property. The northern 5 km of the beach is wider and remains in an accreting phase, with evidence of 50 m or greater accretion in the previous 30 years. The southern 1 km of the beach has also accreted since the 1980s but to a lesser extent. Despite the general trend of accretion over the last 30 or so years, episodic storms or spates of storms can cause overwashing and short-term cut back of the seaward gravel berm along the entire frontage.

Future trends in the Cobden Beach shoreline position relate principally to continued sediment bypassing from Blaketown Beach around the river training works. Further extensions to the tipheads are unlikely, thus it is anticipated that the supply of sediment to Cobden Beach will continue in the foreseeable future in a similar manner as has been occurring over the last 30 or so years. This suggests that the shoreline along the Cobden frontage will in general be relatively stable or accretionary in the long-term, but episodic, short-term natural cycles of accretion and erosion (consequential on river floods, storm events and sequencing and wave climate variability) should still be expected. These natural cycles are expected to cause smaller changes to the Blaketown and Cobden Beaches compared to the historic changes that resulted from the construction of the river training walls.

There is no requirement for any erosion management interventions over the northern 5 km of the beach (north of Monro Road) as this section of the beach appears wide and stable, is expected to withstand storms and can absorb tens of metres of shoreline retreat before the road or private assets are threatened. However, it is imperative that no development or new infrastructure is permitted on the seaward side of the road along this section. Monitoring in the form of regular cycles of aerial photographs from WCRC, Grey District Council (GDC) and Google Earth should be conducted to capture ongoing shoreline changes and provide early warning of any developing risks.

The coastline along the southern 1 km section of the beach near Jellyman Park will continue its unstable fluctuations as the defences surrounding the car park continue to interfere with natural beach processes. The fundamental issue is that the car park and associated infrastructure have been located too close to the active shoreline and do not provide for sufficient beach crest buffer to accommodate the cycles of storm-related erosion that are experienced. It is recommended that:

- The Cobden community and both Councils (WCRC and GDC) discuss their values, objectives and expectations for the carpark, and its future as an amenity or coastal defence buffer.
- Consideration be given to relocating the car park and its access further landward and a minimum 10 m beach crest vegetated buffer reinstated (ideally this would be wider and closer to the 30 – 40 m width occurring along much of Domett Esplanade).

4

1 Introduction

Coastal erosion is an issue facing several communities on the West Coast. This report is one of several recent reports by NIWA assessing coastal issues for the West Coast Regional Council (WCRC). This report assesses coastal erosion at Cobden Beach, situated immediately north of the Grey River mouth and part of the wider Greymouth community.

Cobden Beach is a popular recreational area that has experienced a number of recent erosion events affecting the beach and seaside infrastructure. Attempts have been made to rebuild and repair eroded sections of the beach and protect the infrastructure using rock riprap and other various adhoc methods.

WCRC is concerned that these coastal protection methods may have unintended detrimental effects on Cobden Beach and has requested advice on 1) the likely implications of the recent works, and 2) recommendations for effective and feasible options that allow long-term management and protection of infrastructure and properties along the Cobden Beach foreshore. The advice provided in this report is intended to support WCRC, the Cobden community and recreational users of the beach.

The investigation included a site visit to Cobden by Drs Michael Allis and Murray Hicks on the 21st of November 2017 and review of literature including the West Coast Coastal Hazard Assessment (NIWA, 2012).

This investigation and report has been funded by an Envirolink Small Advice Grant (ref No 1740: C01X1627).

2 Site description

Cobden Beach stretches about 6 km north from the mouth of the Grey River. The southern limit of the beach is the north bank of the Grey River which is fixed in place by a rock training wall (locally known as the 'tiphead'). The northern extremity of the beach is near to Point Elizabeth where it is replaced by the cliffed shoreline formed by the 12 Apostles Range (Figure 2-1). The beach is sometimes referred to as North Beach (e.g., North Beach Road).

Except for the northern extremity near Point Elizabeth, the Cobden Beach hinterland is backed by low lying areas composed of reclaimed tidal lagoons, creek mouths and former channels of the Grey River. Remnants of these are still present, namely Cobden Lagoon, Cobden Island and Lake Ryan (Figure 2-1).

Cobden Beach is mainly composed of mixed sand and gravel. It is typical of coarse grained beaches in that it is relatively steep and narrow (over the present-day active beach foreshore) compared to finegrained (sand) beaches.

The primary driver of coastline change at Cobden Beach is the supply of sediment to/from the beach by the nearshore littoral drift. Along this coastline the littoral drift trend is bi-directional, i.e., moving sediment along the beach in both a northerly and southerly direction. The northerly drift direction is dominant, being driven by the predominant W-SW wave and wind direction at a net rate somewhere between 10,000 m³/year and 100,000 m³/year (Phaflert 1984).

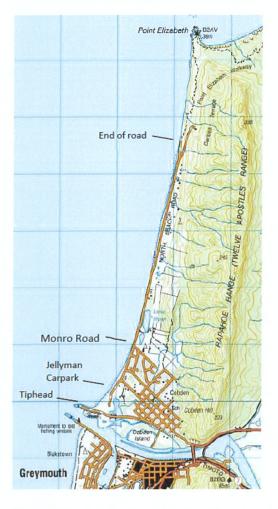


Figure 2-1: Cobden Beach location diagram. Key site inspection locations shown, Scale: 1 km squares. [Credit: Topo NZ, LINZ].

2.1 Shoreline trends

The Grey River training works, constructed over 100 years ago, extend approximately 1 km from the 1884 shoreline (see Figure 2-2), and they significantly altered the coastline by modifying sediment supply to the adjacent beaches. To the south of the river (Blaketown and South Beach), since constructed massive accretion occurred as the northerly littoral drift was trapped against the river training works. Conversely, to the north of the river at Cobden, significant historical erosion occurred as the beach was starved of the sediment that had been trapped on the south side of the river training works (Gibb 1978, Pfahlert 1984, Benn & Todd 2003).

Mapping of the coastline position from aerial photographs and cadastral maps showed that from 1884 to 1981 Blaketown beach prograded (advanced seaward) about 300 m at a rate of 2.9 m/year, while the southern part of Cobden Beach retreated about 130 m at a rate of 1.35 m/year (Pfahlert 1984).



Figure 2-2: Changes to the coastline at Greymouth 1875-2014. [Credit: West Coast New Zealand History¹].

This rate of sediment trapping at Blaketown was expected to reduce in time with a concomitant increase of sediment bypassing around the river training works and onto Cobden Beach. Pfahlert calculated that more than half the original volume of sediment that accumulated on Blaketown Beach (south of the Grey River) in 1884 (about 18,000 m³/year) was bypassing onto Cobden Beach at a rate of about 9,000 m³/year as at 1984. It was also suggested that if this trend continued (assuming a linear trend and no change in sediment supply), Blaketown Beach would eventually stop prograding in 2067 and all sediment would bypass onto Cobden Beach.

¹ http://westcoast.recollect.co.nz/nodes/view/18234#idx24171

Subsequently, Benn and Todd (2003) updated the observations of coastline change with new aerial photographs and found that the southern 1.2 km of Cobden Beach (Bright Street to Kettle Street) had ceased its widespread retreat and had prograded about 30 m from 1981 to 2001 at a rate of about 1.4 m/year. Their investigation did not comment on changes to the northern 4 km of Cobden Beach. The more recent coastal hazard assessment (CHA) prioritised Cobden as a medium hazard area due to threats to North Beach Road and houses at the North of Cobden township (NIWA 2012, updated 2015). It appears the hazard was based on reports of wave overwash causing nuisance inundation along Domett Esplanade, and the prior installation of a small bund alongside the road to manage the overtopping. Photos from the CHA confirmed the widespread accretion along the beach.

The November 2016 site visit (see Section 2.2) confirms the advance and stabilisation of the Cobden Beach coastline. Physical evidence on the rearmost gravel berms suggests 30-40 years have elapsed since that beach material was deposited by wave action on the beach face. This timing aligns with aerial photographs, suggesting that the 1970s-1980s decades mark the transition from erosion to accretion along Cobden Beach. This beach accretion is most prominent further north along the beach, with the beach now well stocked with gravel and the beach face now 60-70 m distant from the road.

The 1980s transition from erosion to accretion at Cobden Beach reflects the increasing volume of sediment bypassing the river training works resulting in the long-term supply of sediment to the southern part of Cobden Beach now exceeding sediment losses from the southern part of the beach alongshore to the north. It can be expected this rate of bypassing would continue to increase as Blaketown Beach intercepts less sediment each year.

The future of sediment supply to Cobden Beach relies on continued bypassing from Blaketown Beach around the river training works, and ongoing flood-flow supply from the Grey River. Further extensions to the tipheads are unlikely, thus it is anticipated that the supply of sediment to Cobden Beach will continue in the foreseeable future in a similar manner as has been occurring over the last 30 or so years. This suggests that long-term shoreline changes along the Cobden frontage will be relatively stable or accretionary but with episodic, short-term natural cycles of accretion and erosion consequential on river floods, storm events, storm event sequences and wave climate variability. These natural cycles are expected to cause smaller changes to the Blaketown and Cobden Beach systems compared to the historic changes that stemmed from the construction of the river training walls.

2.2 Walkover inspection

NIWA and WCRC staff performed a walkover inspection of Cobden Beach on 21st November 2016 (12 pm to 2 pm). Low tide was about 11:09 am for the Grey River mouth, offshore significant wave height was approximately 1.5 m from the west, and winds were light (< 10km/h) and from the west.

The beach was accessed at multiple locations along North Beach Road (see Figure 2-1). Distances referenced below represent distance alongshore (north) from the tiphead. In the following description, the beach has been divided into three separate areas.

2.2.1 Tiphead to Jellyman carpark (0 km - 0.6 km)

This beach is predominantly medium-coarse sand, with minor gravel and cobbles. Due to it being in the wave shadow of the tiphead, sheltered from the prevailing south-westerly waves, the beach is sandy in composition and relatively flat-sloping.

The former Cobden landfill is nestled behind the active beach, adjoining the tiphead wall. The landfill is located on (and forms) reclaimed land and is separated from the sea by a broad low beach crest. A floodway 'cut' channel (mechanically excavated to allow flood flows to exit Cobden Lagoon) separates Jellyman Park and carpark from the tiphead. Aerial photographs show there is sometimes a low-tide bar in the nearshore surf zone close to the tiphead - possibly related to pulses of sediment delivered to the beach during Grey River flood events. The landfill crest is about 5 m above beach crest level, with its sides and toe armoured by building rubble.

The carpark occupies the broad crest of the beach, with the car park surface approximately 1.5 m above the beach level (Figure 2-3). The seaward edge of the carpark is protected by a rock revetment composed of small-medium granite rocks (0.3-0.7 m diameter) at a slope of 1:1.5 to 1:2. We understand that the rocks were added when the carpark was resized in 2015, resulting in the seaward edge of the carpark being pushed further over the beach. No geotextile underlay is apparent beneath the rocks. The crest of the revetment is only one rock wide (0.5 m), and it sits nearly flush with the carpark elevation (Figure 2-3). The carpark now protrudes onto the active beach face 3-5 m from the adjacent vegetation lines and adjacent beach crest. There is no vegetation on the beach in front of the carpark. The seaward edge of the carpark has been repaired several times after storm erosion has undermined the rubble revetment (pers. comm. P. Birchfield). The carpark remains a popular overnight stop for freedom campers.



Figure 2-3: Jellyman Park rock protection and beach front. Left: view south to tiphead from northern end of structure. Right: view north towards Point Elizabeth from southern end of structure. [21 Nov 2016. *Credit*: M. Allis (L), M. Hicks (R)].

To the north and south of the carpark, the beach shows evidence of wave/gravel overwash and vegetation dieback. Immediately north of the carpark, retreat of the beach crest has caused vegetation dieback (gorse/flax, see Figure 2-5). This retreat is likely due to overwashing events, with overwashed gravels reaching 5 m inland from the beach face and up to 10 m inland at access paths. There is also vehicle access at the northern end of the carpark structure, with wheel rut disturbances to sediment and vegetation (Figure 2-4).



Figure 2-4: Cobden Beach at 0.6 km from the tiphead, (at carpark), looking north towards Point Elizabeth. Note vehicle tracks past the end of carpark protection rocks [Credit: M. Hicks, 22/11/2017].



Figure 2-5: Cobden Beach at 0.7 km from the tiphead (100 m north of carpark), looking north toward Point Elizabeth. [*Credit*: M. Allis, 22/11/2017].

2.2.2 Jellyman Carpark to Monro Road (0.6 km - 1.4 km)

Between Jellyman Park and Monro Road the beach has been recently exposed to large waves (either a single storm or series of storm events), with driftwood/gravels being cast into and onto the vegetated beach crest (Figure 2-5). The vegetation dieback indicates there may be some short-term shoreline retreat. There remains at least 20-30 m of vegetated setback to Domett Esplanade.

Closer to Monro Road, there are historic protection works alongside North Beach Road (Figure 2-6), however, these have been buried by more recent accretion and growth of the beach. At present, the inner gravel is elevated 1.5-2 m above the roadway, with one or two storm-berms (terrace-like ridges parallel to the shoreline). Vegetation and lichen (slight discoloration on gravel) have colonised the gravel berms (Figure 2-6), suggesting that these gravels have not been re-worked for over 30 years (other than vehicle and foot traffic – see Figure 2-6).



Figure 2-6: Cobden Beach at 1.4 km from the tiphead (opposite Monro Road) looking south. Note darkgrey lichen growth on gravel outside vehicle tracks, and note historic rock protection alongside roadway [Credit: M. Hicks, 22/11/2017].

2.2.3 Monro Road to end of road (1.4 km - 5 km)

The width of beach gradually increases with distance north from Monro Road, widening from 30-40 m in the south to 60-70 m at the end of North Beach Road, as seen in the sequence of photographs in Figure 2-7 to Figure 2-9.

This section of the beach typically has three storm-berms (terrace-like ridges parallel to the shoreline). Collectively, these ridges represent a recent accretionary phase, with sufficient sediment available to create a berm during storms and then to build-out the beach face during benign conditions. A fourth berm may be forming at present. Stranded driftwood, lichen growth and advancing vegetation all indicate that this accretionary phase has been of the order of 30 years or more.

Overall, Cobden Beach is not experiencing current long-term and widespread erosion and is relatively healthy and well-stocked, with a wide gravel beach and vegetation between the beach face and road infrastructure or private property. The northern 5 km of the beach is wider and remains in an accreting phase, with evidence of 50 m or greater accretion in the previous 30 years. The southern 1 km of the beach has accreted also since the 1980s but to a lesser extent. Despite the general trend of accretion over the last 30 or so years, episodic storms or spates of storms can cause overwashing and short-term cut back of the seaward gravel berm along the entire frontage.



Figure 2-7: Cobden Beach at 1.4 km from tiphead (opposite Monro Road) looking north towards Point Elizabeth. [*Credit*: M. Allis, 22/11/2017].



Figure 2-8: Cobden Beach at 2.9 km from tiphead (opposite 162 North Beach Road) looking north towards Point Elizabeth. [*Credit*: M. Hicks, 22/11/2017].



Figure 2-9:Cobden Beach at 5 km from tiphead (end of North Beach Road) looking north towards PointElizabeth.[Credit: M. Allis, 22/11/2017].

3 Implications of protection works

The Jellyman Park carpark (Hill Quay) occupies the seaward edge of Jellyman Park, as shown in Figure 3-1 (red shading). The carpark acts as both a vehicle carpark, freedom camping site, and coastal defence for the Cobden community and Jellyman reserve. The carpark stretches approximately 200 m along the shoreline between from Cobden Cut (a mechanically-managed channel for drainage of the Cobden Lagoon during high rainfall or river floods) and connects to Hill Quay.

We understand the carpark was previously² a narrow gravel extension to Domett Esplanade positioned on the vegetated gravel barrier. This has been gradually enlarged, with the vegetation lost (either through vehicular trampling or deliberate removal)³ so the gravel barrier berm no-longer had the capacity to accommodate natural fluctuations in shoreline position due to storm events. We understand that the seaward rock protection was added when the carpark was resized in 2015.



Figure 3-1: Jellyman Park, Cobden. Background photograph dated 2013. [Credit: WCRC Westmaps].

The carpark runs parallel along the top of the beach crest and protrudes onto the active beach face 3-5 m further than the adjacent beach crest and vegetation lines to the immediate north and south. Wave action appears to reach the base of the carpark revetment on most high tides.

² As in 2004 aerial photograph (not shown)

³ As in 2013 aerial photograph (not shown)

Despite the accretion that has occurred along this section of coast, the carpark and associated infrastructure has been placed too close to the active beach to accommodate episodic storm events that can cause beach crest overwashing and beach crest cutback. No natural beach crest buffer width has been maintained to enable these short-term erosion events to be accommodated. As such, the carpark suffers from common issues with rock protection placed on beaches. These being the process of lowering of the beach level in front of the structure (a reduction in beach elevation caused by loss of sediment from wave reflections off the structure face) and edge effects eroding around the flanks of the structure (caused by waves wrapping around the structure).

The key issues identified during the site inspection were:

- Immediately north of the carpark, edge effects have contributed to retreat of the beach crest, with overwashing of the gravel storm berm and vegetation dieback (gorse/flax) evident. There was evidence of recent overwash gravels reaching 5 m inland from the beach face and up to 10 m inland at access paths. The out-flanking erosion is also exacerbated by vehicle access to the beach from the carpark itself, preventing vegetation growth, disturbing beach sediment and lowering beach levels.
- In front of the carpark the beach is lowering (relative to adjacent beach sections), with gravel being stripped from the beach face rather than being deposited on the upper part of the beach crest. Any driftwood is also swept past the revetment, piling up downdrift of the structure (which was the north side during the site visit).
- To the south of the carpark structure, the edge effects are less pronounced, perhaps due to increased wave sheltering from the tiphead. However, GDC have extended the rock protection at the Lagoon Cut (Figure 3-2) to prevent waves eroding the cut and entering the lagoon (pers. comm. P. Birchfield). The rock protection has a slope from 1:1.5 to 1:2 and is comprised of small (<0.4 m diameter) rocks.</p>

The overwash and retreat around the carpark flanks are principally due to the abrupt rectangular shape of the carpark and its protrusion onto the beach face. The steep face of the structure and protrusion onto the beach are causing the increased wave reflections off the structure face, causing the beach to lower in front of the carpark.



Figure 3-2: Rock extension south of the carpark to protect the Lagoon Cut entrance. [Credit: M. Hicks, 21/11/2017].

4 Future management options

Future trends in the Cobden Beach shoreline position relate principally to continued sediment bypassing from Blaketown Beach around the river training works. It is anticipated that this will continue in the foreseeable future in a similar manner as has been occurring over the last 30 or so years (especially as further extensions to the tipheads are unlikely). This suggests that long-term shoreline changes along the Cobden frontage in general will be relatively stable or accretionary but with episodic, short-term natural cycles of accretion and erosion. These natural cycles (e.g., river floods, storm events and sequencing and wave climate variability) are expected to cause smaller changes to the Blaketown and Cobden Beaches compared to the historic changes that stemmed from the river training walls.

There is no requirement for any erosion management interventions over the northern 5 km of the beach (north of Monro Road), as this section of the beach appears wide and stable, is expected to withstand storms and can absorb tens of metres of shoreline retreat before the road or private assets are threatened. However, it is imperative that no development or new infrastructure is permitted on the seaward side of the road along this section. Monitoring in the form of regular cycles of aerial photographs from Councils (WCRC and GDC) or Google Earth should be conducted to capture ongoing shoreline changes and provide early warning of any developing risks.

The southern section of the beach near Jellyman Park will continue to change as the defences surrounding the car park continue to interfere with natural beach processes. With no intervention the outflanking erosion will continue to affect the adjacent beach (particularly to the north). The small size of rock armour used to construct the revetment and likely continued beach lowering in front of the carpark revetment will affect the defence performance and seaward parts of the car park (depending on the rock embedment depth). These processes are expected to continue, requiring a frequent commitment of maintenance of the revetment and seaward edge/surface of the car park. However, the size, position and construction mean the carpark structure is not expected to withstand large storm events without damage. If no mitigation works are undertaken then larger rock armouring is likely to be required to ensure the defence provides an adequate level of protection over the long term. Placing a properly constructed revetment may result in further detrimental environmental effects.

The fundamental issue is that the car park and associated infrastructure have been located too close to the active shoreline and so do not provide for sufficient beach crest buffer to accommodate the cycles of storm-related erosion that are experienced. It is recommended that:

- 1. The Cobden community and council discuss their values, objectives and expectations for the carpark, and its future as an amenity or coastal defence.
- Consideration be given to relocating the car park and access further landward and a minimum 10 m beach crest vegetated buffer reinstated (ideally this would be wider and closer to the 30 – 40 m width occurring along much of Domett Esplanade).

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28

Managing and adapting to coastal erosion on the West Coast: Rapahoe

2017 review and update

Prepared for West Coast Regional Council

April 2017

NIWA - enhancing the benefits of New Zealand's natural resources

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Executive summary

Coastal erosion is an issue facing several communities on the West Coast. This report addresses coastal erosion at Rapahoe village which threatens property and infrastructure. The West Coast Regional Council (WCRC) has requested an update to a report titled "Managing and adapting to coastal erosion on the West Coast: Rapahoe" (NIWA, 2006). The advice is intended to benefit WCRC, the Rapahoe community and recreational users of the beach by assisting with informing a long term strategy for managing coastal hazard risk to development at Rapahoe.

There is nothing to suggest that since 2006 erosion in general is getting worse at Rapahoe. The same coastal processes that have been occurring over the last few decades since the seaward berm of the previous hāpua feature retreated landward and reconnected with the present shoreline are influencing the position of the beach. However, the awareness of the problem and the risk and vulnerability are increasing. At Rapahoe, the problem is not due to the ongoing changes in the coastline but rather that historical development, such as Beach Road, has been located too close to the sea to accommodate natural changes and trends in the coastline.

The most effective way to manage risk to private property at Rapahoe is to accommodate potential beach retreat by controlling any further development in the area between Beach Road and the shore-parallel line extension of Hawkens Road. There are only a few permanent properties (dwellings and hotel/pub) in this zone, and while the risk from erosion is not critical in the short-medium term, the erosion risk (along with increasing river and sea flood risks), suggests that opportunities should be explored (i) to relocate these buildings over the next one to two decades as they reach the end of their useful life, and (ii) to control any upgrade or future rebuilding in their present locations.

The existing rock protection suffers from ongoing wave attack causing undermining, abrasion and material losses. Without additional rock and maintenance works, this ongoing degradation of the existing defences may well cause erosion rates to increase, and consequently the remaining lifespan and protection will be short lived. The cost of a substantial upgrade to the rock protection works is unlikely to be economically viable for the community and is not justified given the value of assets at risk and that ultimately relocation of the most seaward buildings and associate development will be required.

The risk to the remaining section of Beach Road south of Statham Street remains high, as the narrow vegetated gravel barrier and poor quality rock/rubble berm are insufficient to withstand long-term beach retreat. The council and community should expect to relinquish Beach Road in the near future. Fortunately this section of Beach Road is not required for property access.

1 Introduction

Coastal erosion is an issue facing several communities on the West Coast. This report is one of several recent reports by NIWA addressing coastal issues for the West Coast Regional Council (WCRC) at several locations on the West Coast. This report addresses coastal erosion at Rapahoe village, situated approximately 10 km north of Greymouth (Figure 1-1) at the mouth of Seven Mile Creek.

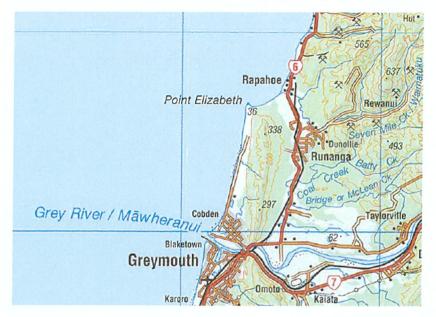


Figure 1-1: Location of Rapahoe.

Coastal erosion at Rapahoe was reviewed in a previous report titled "Managing and adapting to coastal erosion on the West Coast: Rapahoe" completed by NIWA (NIWA, 2006) for the WCRC.

Erosion of the coastline in this area has continued and threatens property and infrastructure. WCRC requested an updated assessment to identify changes to the coastal environment in the 10 years since the report was released. The advice is intended to support WCRC, the Rapahoe community and recreational users of the beach through advice on a long term strategy for management of the beach and guidance on appropriate coastal protection options.

The investigation included a site visit to Rapahoe by Drs Michael Allis and Murray Hicks on the 21 of November, 2017, review of the NIWA (2006) report, and review of other literature since 2006 such as the West Coast Coastal Hazard Assessment (NIWA, 2012).

This investigation and report has been funded by an Envirolink Small Advice Grant (ref. No 1741: C01X1628).

2 Beach processes

The assessment of general geological controls and geomorphic processes and patterns at Rapahoe summarised in the previous assessment (NIWA, 2006) remains applicable. This includes:

- The evolution of a gravel barrier system, including the washover and overstepping processes during storm systems, and including possible responses of aggradation and retreat under sea-level rise scenarios.
- Gravel sediment supply and losses, characterised by long-term sediment starvation at Rapahoe by interception at Cobden/Pt Elizabeth along with ongoing abrasive and littoral transport losses on the beach face.
- Geological factors influencing shoreline evolution. Including the wave refraction around Pt. Elizabeth driving littoral transport, along with the northern and southern mudstone (Papa) outcrops constraining the beach but only supplying poor-quality (with respect to wave erosion resistance) sediment to the beach.
- Influence of existing protection works, including outflanking and edge effects alongside existing protection works, narrowing and lowering of the beach in front of rock revetment structures, and winnowing of smaller gravels through voids in the large rock.

NIWA (2006) provides further explanation of these processes.

2.1 Recent studies

Since the NIWA (2006) assessment, two further studies have investigated coastal changes and hazards at Rapahoe Beach. Both confirm that the observations and assessment by NIWA (2006) remain applicable. The main addition to historic knowledge at Rapahoe is further information on shoreline evolution and retreat processes and rates over the last 70-80 years.

2.1.1 Ishikawa, 2008

Ishikawa's (2008) M.Sc. thesis on beach morphodynamics at Rapahoe investigated historical changes, wave processes and sediment transport, along with bay planform shape. Of interest are the historical features identified from aerial photographs during each decade from 1939-2005. Ishikawa digitised, rectified and analysed these photographs to establish the location of key geomorphic features and their movement over time.

Reprocessing the measurements of beach features (Ishikawa, 2008, Appendix 3.15) showed:

A lagoon/hāpua feature was previously evident seaward of the present-day shoreline (Figure 2-1). The lagoon had an approximate surface area of 3 ha in 1939, reducing to 0.5 ha in 1945 and < 0.1 ha in 1970. No tidally-connected lagoon has been observed since 1970, although ponding in the former lagoon depressions is noted in the 1980s. The lagoon, as photographed in 1939, would have been classified as a hāpua-type lagoon (Kirk and Lauder, 2000) which are narrow, elongated and shallow, separated from the ocean by coarse clastic (gravel, cobble) barrier beaches formed by strong longshore sediment transport (Hume et al. 2016).

- The seaward gravel barrier berm, which separated the lagoon from the ocean, has retreated over 60 m (1939-2005) landward and merged with the shoreline along the landward edge of the lagoon (forming the present-day shoreline). This is seen in Figure 2-1 as the landward extent of the lagoon (located beneath the present day Beach Road) remains nearly stationary as the outer berm retreats landward, with the hāpua body and depression narrowing due to barrier washover and rollover processes. Evidence of washover lobes and water-filled depressions is also seen in historic figures reproduced by NIWA (2006, Figure 4-top). This process was particularly evident during the 1939 to 1948 period, when the hāpua dramatically reduced in size and was cut off from Seven Mile Creek (Figure 2-1).
- The outer berm retreated at an average rate of 0.95 m/year from 1939-2005, to infill the lagoon depression and merge with the inner berm forming the present-day shoreline. Peak localised retreat rates were 3 m/year during 1948-1959 and 2.7 m/year from 1980-1988. The rate of retreat slowed from 1.56 m/year for 1980-1988 to 0.63 m/year for 1988-1997 and further to 0.13 m/year for 1997-2005 as the berms merged into the present-day shoreline berm.
- The vegetation line, representing the top of the gravel barrier on the seaward side of Beach Road, retreated a total of 8.8 m from 1939-2005 at an average rate of 0.13 m/year. This movement is much less compared to the seaward berm due to the protection provided by the seaward berm before they merged. Minor phases of seaward advance occurred in 1939-1959 (+5 m advance over 20 years) as the outer berm merged with the vegetated berm. However, since 1959 the vegetation line has steadily retreated at 0.3 m/year (1959-2005), with a total of 13 m retreat. This phase of retreat has continued since Ishikawa's study and is causing the heightened risk to property by reducing the buffer between the sea and development.
- Ishikawa concludes that the shoreline may further retreat due to geological controls (soft mudstones), ongoing potential sediment transport (wave refraction and hinge point) and the transgressive nature of the composite beaches (evidenced by loss of lagoon). The coast is expected to evolve in a manner consistent with past changes, i.e., with barrier rollover and overwash advancing into the hinterland.

This information shows that the present-day erosion issue has a longer recorded timeline than previously summarised in the 2006 report. The former hāpua acted as a buffer between the sea and the village. The retreat of the vegetation line (inferred to be the landward berm beneath Beach Road and the present-day shoreline) has been slower but steady at 0.3 m/year since 1959. It is this ongoing retreat which is causing the heightened risk to property by reducing the buffer between the sea and development.

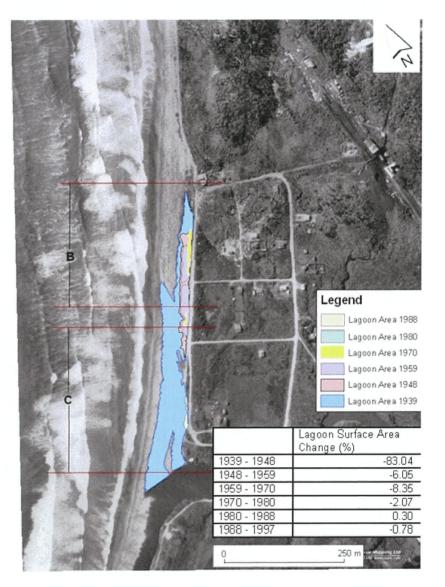


Figure 2-1: Historic hāpua extents and historic aerial photograph (1939). [*Credit*: NZ Aerial Mapping Ltd, Ishikawa (2008, Figure 3.9)].

2.1.2 Regional coastal hazard assessment (2012)

The latest Coastal Hazard Assessment (CHA) at Rapahoe (NIWA, 2012) prioritises the Rapahoe coastal area as 'High: ongoing processes threaten to erode several properties as well as SH6. Sea flooding will become an increasing problem as more erosion occurs'. The CHA identifies the variability in erosion rates along the beach predominantly due to the varying exposure to wave energy and direction. The CHA recommends development of hazard zones to allow assessment of risk to property, along with management plans for present and future usage.

Note that historically, the development at Rapahoe (since 1939) is characterised by infilling between houses, and generally inland from the shore-parallel line of Hawkens St (compare Figure 2-1 and Figure 3-1 below). There are a few exceptions to this, namely the campground, pub and Holland St areas. The CHA recommendation about developing hazard zones to accommodate coastal retreat is largely about managing housing development in the area seaward of the shore-parallel line of Hawkens St to reduce increasing exposure risk, **not** trying to control the shoreline.

3 Updated observations

The investigation included a site visit by Drs Michael Allis and Murray Hicks on the 21st November 2016. At the time of inspection (1 pm to 4:30 pm), low tide was predicted for about 11:09 am for the Grey River mouth (6 km south), offshore significant wave height was approximately 1.5 m from the west, and winds were light (< 10km/h) and from the west.

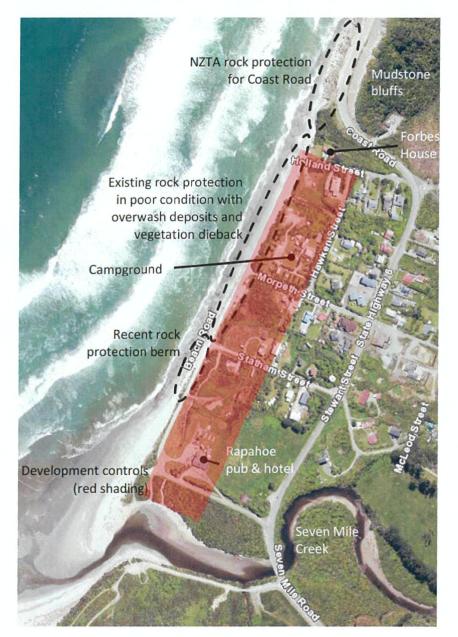


Figure 3-1: Rapahoe location diagram. Imagery 2013. [Credit: gis.westcoast.govt.nz].

At Rapahoe, several observations were made in order to review and update the NIWA (2006) assessment. These are:

 Ongoing wave overwash of gravel is evident at all locations along the Rapahoe beach front (Figure 3-2). Wave overtopping, saltwater spray and gravel movement are affecting beach-crest vegetation and roadways (Beach Road and the seaward ends of

Managing and adapting to coastal erosion on the West Coast: Rapahoe

Statham, Morpeth and Holland Streets, see Figure 3-2), with evidence of periodic council sweeping and clean-up on Beach Road. Nearer to high tide (within 90 minutes) at the end of the inspection, the relatively benign waves and uprush regularly submerged and covered much of the rock protection on the beach face, but waves were not able to reach the beach crest. Evidence of storm overwash into the coastal fringe of inland private properties was also observed.

- Beach Road remains closed between Stantham St and Holland Rd, with no additional lengths closed since 2006. This is probably due to the protection provided by a small rock/rubble berm placed alongside Beach Rd, extending approximately 100 m south from Statham St (Figure 3-1, Figure 3-3 (right), Figure 3-4). The berm is composed of small mudstone cobbles and boulders (<0.5 m diameter) mixed with sands and gravels. The rock berm appears to have been placed on the beach crest without any geotextile underlayer or toe embedment, and is only 1-1.5 m wide and reaches 1 m above ground level. The council appear to maintain this after erosion and overwash occurrences (Figure 3-2, right). This berm is a poor quality, short-term coastal defence which is much smaller than protection works at the northern end of Rapahoe. The berm has already suffered erosion/undermining from wave attack and is not expected to survive large storm erosion or to protect against wave overtopping.</p>
- Continued beach retreat along the entire foreshore. Although there have been no additional closures of Beach Rd, the entire beach is narrowing and the beach crest continues to retreat landward. This is evidenced in the exposed and eroding former road base (Beach Road between Morpeth St and Holland St, Figure 3-3, left) and the lowering and retreat of the upper beach increasing the space between the top of the rock armour and beach crest (Figure 3-4, right; Figure 3-5).
- Retreat of the beach along the Rapahoe frontage north of Statham Street (Figure 3-1) is now undermining the existing rock protection, causing it to subside. The crest of the rock protection is now >1 m below, and 3-5 m from, the beach crest (Figure 3-4, right; Figure 3-5). The amount of recent erosion and subsidence reduces at the north end of Rapahoe, with <1 m retreat over the last 10 years at the low mudstone bluffs (Figure 3-1, Figure 3-5 and Forbes house). Despite the ongoing erosion, the relatively low retreat rate since 1997 (< 0.5 m/year) compared to the 1939-1988 retreat rate (1.5 m/year) is due to the protection provided by the merged gravel barriers and to some extent the rock revetment.</p>
- Erosion of the bluff is due to both the gradual loss of protection provided by the beach material fronting the bluff and the undermining and slumping of the larger rocks in the revetment which decreases the level of protection to the bluff behind.
- The Forbes house and garage at the far northern end of Rapahoe beach front (unnumbered, on Holland Street, see Figure 3-1) have been relocated 20-25 m inland on the same section in response to the ongoing erosion threat. The former foundations and driveway have since been partially lost to erosion. Large (>1m diameter) boulders have been placed along the beach front linking to the NZTA protection of the northern Rapahoe bluffs (Figure 3-6).



Figure 3-2: Continued overwash deposits onto Morpeth St (left) and Beach Rd near Statham St (right). [Credit: M. Hicks].



Figure 3-3: Continued erosion behind the rock revetment along the former Beach Rd between Morpeth St and Holland St (left) and recent protection works alongside Beach Rd south from Statham St (Right). Left: note former Beach Rd tar seal and basecourse layers at right of image. [*Credit*: M. Allis].



Figure 3-4: Continued beach retreat against rock berm (left) and along the entire foreshore (right). [Credit: M. Hicks].

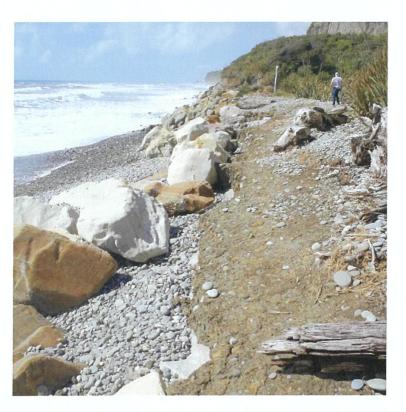


Figure 3-5: Current condition (21 November 2016) of the northern end of the rock revetment. [*Credit*: M. M. Allis].



Figure 3-6: Relocated Forbes house, Holland St. Former foundations and driveway are just visible 20-25 m seaward (left) from house [*Credit*: M. Hicks].

4 Updated assessment

4.1 Erosion rates

There is nothing to suggest that since 2006 erosion in general is getting worse at Rapahoe. The same coastal processes that have been occurring over the last few decades since the seaward berm of the previous hāpua feature has retreated landward and reconnected with the present shoreline are influencing the position of the beach. However, the awareness of the problem and the risk and vulnerability are increasing. At Rapahoe, the problem is not due to the ongoing changes in the coastline but rather that historical development, such as Beach Road, has been located too close to the sea to accommodate natural changes and trends in the coastline.

The survey data from Ishikawa (2008) has quantified shoreline changes and showed a slowing of the retreat rates in latter decades of the 20th Century. A decline in retreat rates are visible during the periods of 1980-1988 (1.56 m/year), 1988-1997 (0.63 m/year) and 1997-2005 (0.13 m/year)¹. This slowing in the rate of retreat is probably due the retreat of the seaward berm of the previous hāpua as it reconnects with the present shoreline berm and the influence of the geologic bedrock controls of the northern Kaiata mudstone bluffs. Some short-term slowing of the retreat rate from 1997 onwards could also be due to the rock protection works by NZTA below the northern mudstone bluffs and rock protection works along the Rapahoe beach frontage, although the longer-term effects and longevity of the rock protection works cannot be predicted at this stage.

In contrast, the 2006-2016 retreat rate of the barrier crest is estimated to be 0.3-0.5 m/year (estimated from site photographs). This recent increase in the rate of retreat suggests the gravel barrier material is winnowed from between the rock protection causing undermining of the protection works and subsequent slight acceleration of landward retreat.

With the exception of a significant earthquake event there is unlikely to be any significant change in the inputs of cobbles and gravel to the Rapahoe beach system. Long-term retreat is expected to be an ongoing feature of this section of coast. The placement of the rock armour has slowed the rate of retreat but given the ad hoc and poorly constructed nature of the defence it will not prevent ongoing retreat of the shoreline or significantly reduce wave overwashing and potential flooding during high tide and large wave conditions.

4.2 Risk and vulnerability

The Forbes property (far northern end, previously at critical risk) provides an effective example of managing development risk from coast erosion and flooding at Rapahoe (Figure 3.5). The relocation of the property has substantially reduced the risk of damage to the property and increased the future timeframe over which the property can be effectively used.

The most effective way to manage risk to private property in the future is accommodating the potential beach retreat through controlling any further development in the area between Beach Road and the shore-parallel line of Hawkens Road - see red shaded area in Figure 3-1. This low-lying area is also being increasingly exposed to storm-related flooding due to wave overtopping, potential breaching of the shoreline berm, or from high river levels, and will increasingly experience drainage and more frequent flooding during storm events as sea-levels rise.

¹ Reprocessed from Ishikawa (2008, Appendix 3.15).

Managing and adapting to coastal erosion on the West Coast: Rapahoe

There are only a few permanent properties (dwellings and hotel/pub) along this seaward section at Rapahoe. These are typically at least 30-40 m from the present-day beach crest, and while not a critical risk from erosion in the short-medium term, this along with increased flood risks suggest that opportunities should be explored to relocate these buildings over the next one to two decades as they reach the end of their useful life and to control any upgrade or future rebuilding in their present locations. The existing camp and caravan sites (see Figure 3-1) are relatively straightforward assets to relocate should impacts from erosion or flooding on the site become more likely or significant, assuming there is a suitable site to relocate to. The most cost-effective long-term strategy to reduce risk will be to relocate rather than continue to maintain and extend the rock protection.

The existing rock protection suffers from ongoing wave attack causing undermining, abrasion and material losses. Without additional rock and maintenance works, this ongoing degradation of the existing defences may well cause erosion rates to increase - and consequently the remaining lifespan of the protection will be shortened. The cost of a substantial upgrade to the rock protection works is unlikely to be economically viable for the community, given the development at risk. Thus medium to long-term relocation of the most seaward buildings and associated development will be required.

The risk to the remaining section of Beach Road south of Statham Street remains high, as the narrow vegetated gravel barrier and poor quality (size, position, material strength, and material composition) rock/rubble berm are insufficient to withstand long-term beach retreat. The council and community should expect to relinquish Beach Road in the near future. Fortunately, this section of Beach Road is not required for property access.

5 Future management options

Overall, with only small changes to the Rapahoe beach system over the past decade, the management options proposed by NIWA (2006, Chapter 3) remain applicable:

- The most cost-effective medium to long-term risk reduction strategy will be to relocate the most seaward buildings and development rather than continue to maintain, upgrade, or extend the rock protection.
- Controls to restrict future development seaward of Hawkens Street will reduce the risk to development from the long-term beach retreat at Rapahoe. This may include restrictions on new properties, on rebuilding once dwellings reach their end of life, or relocating before the risk becomes critical.
- There is little economic justification for adopting a continued upgrade/extension of the hard defence seawall along the majority of this coastal frontage for the protection of Beach Road, given that Beach Road is not required for property access and the adjacent properties are either undeveloped or their developments relocatable (e.g., campground).

6 References

- Ishikawa, R. (2008) Historical shoreline change and beach morphodynamics at Rapahoe Bay, West Coast, New Zealand. *MSc Thesis in Geography*. University of Canterbury.
- NIWA (2006) Managing and adapting to coastal erosion on the West Coast: Rapahoe. *NIWA Client Report* HAM2006-154, prepared for the West Coast Regional Council: 26.
- NIWA (2012) Review of West Coast Region Coastal Hazard Areas. *NIWA Client Report* CHC2012-081, prepared for the West Coast Regional Council: 65. Revised December 2015.
- Kirk, R.M., Lauder, G.A. (2000) Significant coastal lagoon system in the South Island, New Zealand. Coastal processes and lagoon mouth closure. *Science for Conservation*, 146: 47.
- Hume, T., Gerbeaux, P., Hart, D., Kettles, H., Neale, D., (2016) A classification of New Zealand's coastal hydrosystems. *NIWA Client Report* HAM2016-062, prepared for the Ministry of the Environment, October 2016.

4.2

THE WEST COAST REGIONAL COUNCIL

Prepared for:	Council Meeting 13 June 2017
Prepared by:	Robert Mallinson – Corporate Services Manager
Date:	31 May 2017
Subject:	Corporate Services Manager's Report

1. Financial Report

1. Financial Report				
FOR THE TEN MONTHS ENDED 30 APRIL 2017	ACTUAL	YEAR TO DATE BUDGET	ACTUAL % ANNUAL BUDGET	ANNUAL BUDGET
REVENUES				
General Rates and Penalties	1,927,133	1,943,333	83%	2,332,000
Investment Income	1,070,741	742,473	120%	890,968
Resource Management	1,294,969	1,002,755	113%	1,145,626
Regional Land Transport	74,513	75,511	82%	90,613
Emergency Management	241,931	221,667	91%	266,000
Economic Development	213,252	125,000	142%	150,000
River, Drainage, Coastal Protection	1,922,301	1,159,548	138%	1,391,457
Warm West Coast	65,522	90,833	0%	109,000
VCS Business Unit	6,674,774	2,588,523	215%	3,106,227
Commercial Property Revaluation	0	0	0%	34,659
	13,485,136	7,949,643		9,516,550
EXPENDITURE				
Governance	413,440	401,131	86%	481,357
Economic Development	309,844	250,000	103%	300,000
Resource Management	3,043,558	2,449,186	104%	2,934,858
Regional land Transport	140,700	139,814	84%	167,777
Hydrology & Floodw arning Services	533,178	502,560	88%	603,072
Emergency Management	334,748	268,430	104%	322,116
River, Drainage, Coastal Protection	1,658,298	1,287,819	107%	1,545,383
VCS Business Unit	5,504,592	2,124,356	216%	2,549,227
Other	48,466		64%	75,396
Warm West Coast	19,363	90,833	18%	109,000
	12,006,187	7,576,960		9,088,186
OPERATING SURPLUS / (DEFICIT)	1,478,949	372,683		428,364

BREAKDOWN OF SURPLUS (-DEFICIT)	Variance Actual V	ACTUAL	BUDGET	ANNUAL
	Budgeted YTD		Year to date	BUDGET
Rating Districts	524,483	786,185	261,702	314,042
Economic Development	28,408	-96,592	-125,000	-150,000
Quarries	-74,358	-86,590	-12,232	-14,678
Investment Income	328,268	1,070,741	742,473	890,968
VCS Business Unit	706,015	1,170,181	464,167	557,000
General Rates Funded Activities	-467,072	-1,362,669	-895,597	-1,128,231
Warm West Coast	46,159	46,159	0	0
Revaluation Investment Property	0	0	0	34,659
Other	14,364	-48,466	-62,830	-75,396
TOTAL	1,106,265	1,478,949	372,683	428,364

Net Contributors to General Rates Funded Surplus (-Deficit)		Actual	Budet ytd	Annual Plan
	Net Variance			
	Actual V YTD			
Rates	-16,200	1,927,133	1,943,333	2,332,000
Representation	-12,309	-413,440	-401,131	-481,357
Resource Management	-302,157	-1,748,588	-1,446,431	-1,789,232
Transport Activities	-1,883	-66,187	-64,303	-77,164
River, Drainage, Coastal Protection	-57,851	-435,592	-377,742	-453,290
Hydrology & Floodw arning	-30,618	-533,178	-502,560	-603,072
Emergency Management	-46,054	-92,817	-46,763	-56,116
	-467,072	-1,362,669	-895,597	-1,128,231

STATEMENT OF FINANCIAL POSITION @ 30 APRIL 2017

	@ 30/04/17
CURRENT ASSETS	
Cash	1,418,689
Deposit - Westpac	862
Accounts Receivable - General	136,147
Accounts Receivable - Rates	263,042
Prepayments	118,779
Sundry Receivables	938,622
GST Refund due	0
Stock - VCS	22,643
Stock - Rock	613,512
Stock - Office Supplies	23,640
Accrued Rates Revenue	0
	3,535,935
NON CURRENT ASSETS	3,535,935
NON CURRENT ASSETS Investments	3,535,935
· · · · · · · · · · · · · · · · · · ·	
Investments	10,743,971
Investments Strategic Investments	10,743,971 1,222,645
Investments Strategic Investments Term Deposit - PRCC bond	10,743,971 1,222,645 50,000
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds	10,743,971 1,222,645 50,000 11,142
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds Investments-Catastrophe Fund	10,743,971 1,222,645 50,000 11,142 1,014,572
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds Investments-Catastrophe Fund Warm West Coast Loans	10,743,971 1,222,645 50,000 11,142 1,014,572 525,957
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds Investments-Catastrophe Fund Warm West Coast Loans Commercial Property Investment	10,743,971 1,222,645 50,000 11,142 1,014,572 525,957 1,420,000
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds Investments-Catastrophe Fund Warm West Coast Loans Commercial Property Investment Fixed Assets	10,743,971 1,222,645 50,000 11,142 1,014,572 525,957 1,420,000 4,452,359
Investments Strategic Investments Term Deposit - PRCC bond MBIE & DOC Bonds Investments-Catastrophe Fund Warm West Coast Loans Commercial Property Investment Fixed Assets	10,743,971 1,222,645 50,000 11,142 1,014,572 525,957 1,420,000 4,452,359 57,856,890

CURRENT LIABILITIES	
Bank Short Term Loan	500,000
Accounts Payable	984,213
GST	230,335
Deposits and Bonds	924,824
Sundry Payables	57,169
Rates Revenue in advance	604,188
Accrued Annual Leave, Payroll	349,448
	3,650,176
NON CURRENT LIA BILITIES	
Future Quarry restoration	70,000
Interest Rate Hedge Position	146,062
Low er Waiho	185,420
Greymouth Floodw all	1,651,030
Hokitika Seaw all	1,250,000
Strategic Investments	1,139,177
Warm West Coast	495,000
Working capital loan	666,775
Office Equipment Leases	0
	5,603,464
TOTAL LIABILITIES	9,253,640
EQUITY	
Ratepayers Equity	18,349,974
Surplus transferred	1,478,949
Rating Districts Equity	2,656,141
Revaluation	38,361,028
Quarry Account	-252,818
Catastrophe Fund	976,554
Investment Grow th Reserve	10,010,000
TOTAL EQUITY	71,579,828
LIABILITIES & EQUITY	80,833,468

2. Comment

Council achieved a surplus of \$1.479 million for the ten months to 30 April 2017. This continues the excellent result reported to the May meeting and is underpinned by strong VCS and PCR LP income for the 10 months.

Investment income includes:

- Income from associate PCR LP.
- Income from managed funds.
- Commercial property income.
- Movements in interest rate swap positions.

April 2017	Cata	strophe Fund	Major Portfolio		TO	TAL
Opening balance 1 April 2017	\$	1,004,055	\$ 10,627,597		\$	11,631,652
Income April 2017	\$	10,517	\$ 116,374		\$	126,891
Deposit						
Withdrawl			\$ -		\$	-
Closing balance 30 April 2017	\$	1,014,572	\$ 10,743,971	L	\$	11,758,543
Total income year to date to 30 April 2017	\$	38,019	\$ 587,663		\$	625,682

3. Westpac Portfolio Performance

RECOMMENDATION

That the report be received.

Robert Mallinson Corporate Services Manager

5.0

THE WEST COAST REGIONAL COUNCIL

Prepared for: Prepared by: Date: Subject: Council Meeting- 13 June 2017 Andrew Robb – Chairman 31 May 2017 CHAIRMAN'S REPORT

Meetings Attended:

- I attended a meeting on the Freshwater National Policy Statement on 4 May.
- I attended the Governance Group meeting on 10 May.
- On the evening of 10 May I attended the EDA Workshop in Reefton with fellow elected members from the 4 Councils and Board members from Development West Coast.
- The Chief Executive and I attended the Mayors and Chairs Forum on 11 May.
- I attended the Regional Sector Group meeting in Wellington on 12 May.
- I met with Hon Judith Collins, Minister of Energy and Resources in Westport on 16 May.
- I hosted a visit from Hon Anne Tolley, Minister of Local Government on 17 May.
- I met with Greg Schollum, Deputy Auditor-General on 17 May.
- The Chief Executive and I attended the LGNZ Water Symposium held in Wellington on 29 and 30 May.
- I attended the Presentations to Council for Management of Council's Investment Portfolio on 1 June.

Council DWC Appointment 18 April

Interviews for the position of Council appointee on DWC will be held next week. Myself and the three Mayors will be involved with this process.

RECOMMENDATION

That this report be received.

Andrew Robb Chairman

6.0

THE WEST COAST REGIONAL COUNCIL

Prepared for:Council Meeting 13 June 2017Prepared by:Michael Meehan – Chief ExecutiveDate:4 June 2017Subject:CHIEF EXECUTIVE'S REPORT

Meetings Attended

- I attended the Regional CEO meeting in Wellington on 2 May and on the following day I attended the Chief Executive's Environmental Forum.
- I attended the CEG meeting on 8 May.
- I attended the Regional Growth Study Governance Group meeting on 10 May.
- On the evening of 10 May I attended the EDA Workshop in Reefton with the Chairman, Elected members and Board members from Development West Coast.
- The Chairman and I attended the Mayors and Chairs Forum on 11 May.
- I attended the Regional Sector Group meeting in Wellington on 12 May with the Chairman.
- I attended the Special Council Meeting for the Annual Plan on 15 May.
- I met with Hon Judith Collins in Westport on 16 May.
- I attended a PCR meeting on 26 May.
- The Chairman and I attended the LGNZ Water Symposium held in Wellington on 29 and 30 May.
- I met with Lou Sanson, Director General of DoC on 2 June.
- I will be attending the CEG Chairs meeting in Wellington on 6 June; this will be followed by the National Emergency Management Conference on 7 and 8 June.
- I will be meeting with MBIE to discuss the assessment of the Petroleum and Minerals regulatory system in Wellington on the afternoon of 7 June.
- I will be attending the LGNZ Policy Advisory Group meeting in Wellington on 8 June.

I took one sick day during the reporting period.

RECOMMENDATION

That this report be received.

Michael Meehan Chief Executive

THE WEST COAST REGIONAL COUNCIL

To: Chairperson

West Coast Regional Council

I move that the public be excluded from the following parts of the proceedings of this meeting, namely, -

Agenda Iter	m No. 8.		
-	49 – 50	8.1	Confirmation of Confidential Minutes 9 May 2017
		8.2	Overdue Debtors Report (to be tabled)
	51	8.3	Appointment of Fund Manager for Council Investment Portfolios
	52 – 53	8.4	Quarry Pricing and Finances
		8.5	Response to Presentation (if any)
		8.6	In Committee Items to be Released to Media

	8.6	In Committee Iter	ms to be Re	eleased to Media
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Item No.	General Subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution.
8.			
8.1	Confirmation of Confidential Minutes 9 May 2017		Item 1 & 2 protecting privacy of natural persons Section 7 (3) (a) of the
8.2	Overdue Debtors Report (to be tabled)		Local Government Official Information and Meetings Act 1987.
8.3	Appointment of Fund Manager for Council Investment Portfolios		
8.4	Quarry Pricing and Finances		
8.5	Response to Presentation (if any)		
8.6	In Committee Items to be Released to Media		
I also move that:			
Michael Meehan			

- Robert Mallinson .
- Gerard McCormack .
- Nichola Costley .
- Randal Beal .
- Nichola Costley .

be permitted to remain at this meeting after the public has been excluded, because of their knowledge on the subject. This knowledge, which will be of assistance in relation to the matter to be discussed.

The Minutes Clerk also be permitted to remain at the meeting.