

**File Reference:** 6.00045  
**Significance of Decision:** Low



**Report To:** Regional Council  
**Meeting Date:** 15 March 2012  
**Report From:** Mary-Anne Macleod, Chief Executive

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## **Rangitaiki-Tarawera Rivers Scheme Capex Transfers in 2011/12 Annual Plan**

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### **Executive Summary**

Flood damage repairs in the Rangitāiki-Tarawera Rivers Scheme are progressing well and tracking ahead of budget. The current (2011/12) year budget for flood damage repair in this scheme of \$1.7m has been expended while a further \$7.4m of flood damage repair is budgeted in the first 3 years of the draft Ten Year Plan 2012-2022.

In the same scheme, the Rangitāiki floodway widening works are tracking behind schedule due to geotechnical challenges exacerbated by the need to obtain landowner agreement.

It is proposed that the current year end projected underspend of \$1.2m on the Rangitāiki floodway widening project be transferred to the flood damage repair line, within the same scheme capital expenditure budget.

This will allow high priority flood damage repairs to progress while solutions to the floodway widening issues are developed without impacting the overall 2011/12 budget

At the same time as the above transfer, for better transparency, transfers of a funds carried forward from the 2010/11 budget and lumped into the Rangitāiki floodway widening budget line need to be allocated to budget lines to which each carry forward was intended.

In summary it is requested that within the current 2011/12 budget for the Rangitāiki-Tarawera Scheme:

- (a) \$1.538m be transferred from the Rangitāiki floodway widening budget line to the Flood damage repair works budget line, and
- (b) \$300,000 be transferred from the Rangitaiki floodway widening budget line to the Rangitāiki-Tarawera Reach 10 canal stopbanks budget line.

A reciprocal request to transfer \$1.2m from the Flood damage repair works budget line back to the Rangitāiki floodway widening budget line will be requested in due course (within the first three years of the TYP 2012-2022).

## Recommendations

That the Regional Council:

- 1 **Receives the report, Rangitaiki-Tarawera Rivers Scheme Capex Transfers in 2011/12 Annual Plan.**
- 2 **Approves transfer of \$1.538m from the Rangitāiki floodway widening stage 1 budget line to the Flood damage repair works budget line within the Rangitāiki-Tarawera capital expenditure budget for 2011/12.**
- 3 **Approves the transfer of \$300,000 from the Rangitāiki floodway widening stage 1 budget line to the Rangitāiki-Tarawera Reach 10 canal stopbanks budget line.**
- 4 **Notes that a reciprocal transfer of \$1.2m from back from the Flood damage repair works line to the Rangitāiki floodway widening budget line will be required during the first three years of Ten Year Plan.**
- 5 **Confirms that the decision is within the Bay of Plenty Regional Council's strategic planning framework (Council's Ten Year Plan, and planning documents and processes under the Resource Management Act 1991, Biosecurity Act 1993, Land Transport Management Act 2003, Civil Defence and Emergency Management Act 2002, and Local Government Act 1974 and 2002).**

## Introduction

Following the severe floods across the Bay of Plenty Region in August 2010 and January 2011, flood damage to Rivers Schemes in the region was estimated to be \$9.4m. A portion of the damage was deemed to be to existing infrastructure (\$1.8m) requiring repair under operational budgets while the remainder (\$7.6m) was designated as capital works. The operational portion was to be recovered (minus deductibles) by way of a claim to the Local Authority Protection Programme (LAPP).

Council chose to budget for 30% of the capital flood damage repairs (\$2.3m) in the 2011/12 Annual Plan and left the remainder of flood damage to be funded in the Ten Year Plan 2012-2022. Since then further flood damage and a detailed flood damage risk assessment has resulted in an increased estimate of flood damage. Council has proposed funding the high risk portion of remaining flood damage in the draft Ten Year Plan with a budgeted expenditure of \$13m over the Rivers and Drainage Schemes across the region.

Since capital had been carried forward from the 2010/11 budget and given that there was a large amount of flood damage repair, Council chose to be conservative in budgeting for a portion of flood damage repairs in the 2010/11 year, with the understanding that if flood damage repair works proceeded well, staff could return to Council and request further funding.

Flood damage repairs in the Rangitāiki-Tarawera Rivers Scheme have progressed very well to the point where the allocated budget for flood damage repairs has been expended. *Appendix 1* lists the 15 sites at which flood damage repairs have been completed during the 2011/12 year. Photos of most of the completed works at these sites are also included in *Appendix 1*.

At the same time as flood damage repairs have progressed very well, there have been challenges to progressing other capital works on the Rangitaiki floodway as quickly as

had been planned, resulting in a projected underspend of 2011/12 budgeted funds in the Rangitāiki Floodway widening project.

Details of the capex budget and expenditure for the Rangitāiki-Tarawera Rivers scheme are presented in more detail below to support the request for a transfer of capex funds within the program and within the 2011/12 Annual Plan budget.

### 3 Rangitāiki-Tarawera Flood Damage Costs

The 2011/12 Annual Plan budget for flood damage repair in the 2011/12 Annual Plan for the Rangitāiki-Tarawera scheme amounted to \$1.7m being comprised of operational, capital, expected LAPP claim revenue and carry forward funds as shown in Table 1. Nearly all of the funds available for flood damage repair have been expended and further flood damage repair funding is required to keep progressing these works.

It is estimated that a further \$1.2m of flood damage repairs on the Rangitāiki-Tarawera Scheme could be completed this financial year.

**Table 1. Rangitāiki-Tarawera 2011/12 flood repair budget and expenditure**

<b>Rangitāiki-Tarawera Rivers Scheme</b>	<b>(\$000)</b>
Operating budget for flood repair (to be claimed from LAPP)	790
Capex budget for flood damage repair	599
<u>Capex carry forwards from 2010/11 (included in Floodway widening)</u>	<u>338</u>
Total available for flood damage repair	1,727
 Flood damage repair expenditure do date (31/12/2011)	 1,682
<u>Projected flood damage repairs that could be completed by year end</u>	<u>1,200</u>
Projected year end deficit	-1,155

For details of the 2011/12 budget and expenditure to date, refer to the extract of Capital Expenditure for the Rangitāiki-Tarawera Rivers Scheme from the Quarterly Performance Report for the period ending 31 December 2011 (*Appendix 2*).

Overall flood damage repairs, to the level of risk agreed to in Council workshops, is still on track to be completed within the overall flood protection and repair capital works budget of \$7.4m in the first three years of the TYP for the Rangitāiki-Tarawera Rivers Scheme (refer to *Appendix 3*).

While budget for flood damage repair work has been spread over 4 years including the current year and the first three years of the Ten Year Plan, the sooner that flood damage repairs can be carried out the better, reducing the risk of exacerbating current damage and increasing the overall cost of repair.

It was anticipated that flood damage repair funding may need to be brought forward or carried over depending on progress, material availability, weather and other unknown factors. For the Rangitāiki-Tarawera Scheme, flood damage repair works have progressed very well, and are ahead of schedule, so a request to transfer funding to keep these works progressing is appropriate. The proposed transfer is presented after the following discussion on progress of the Rangitāiki floodway widening works.

## Rangitāiki Floodway Widening Works

Concurrent with flood damage repairs, planned Rangitāiki geotechnical and floodway widening works are ongoing. A challenge with estimating the cost of works such as the floodway widening works is that until geotechnical investigations are complete, it is very difficult to estimate the final costs of the works. Also while consents for the works have been obtained, landowner permission is still required to undertake these works. Landowner preferences often result in more expensive options or the need for further geotechnical investigation of alternative options. Difficulty reaching landowner agreement in parts of the Rangitāiki floodway have meant that the Rangitāiki Floodway widening is behind schedule and projected to be behind schedule at years end. While the cost of geotechnical works at years end will be close to budget, further geotechnical works will be required in 2012/2013 due to the complexity of the geotechnical solution required to ensure landowner agreement. The budget and expenditure to date for Rangitāiki Floodway widening – stage 1 is shown in Table 2 (for details refer to *Appendix 2*).

**Table 2. Rangitāiki Floodway 2011/12 budget and expenditure**

<b>Rangitāiki-Tarawera Rivers Scheme</b>	<b>(\$000)</b>
Capex – Rangitāiki Floodway widening stage 1	3,564
Rangitāiki Floodway widening expenditure to date (31/1/2012)	
Floodway stopbank raising	-482
Floodway widening investigation and design	-190
Floodway widening – stage 1	-62
Carry forward from 2011/12 (included in \$3,564 capex line)	
For flood damage repair	-338
For Rangitāiki-Tarawera Reach 10 works	-300
Estimated further Floodway widening expenditure to year end	<u>-1,000</u>
Projected year end unspent capex funding	1,192

Note that an **under-expenditure of \$1.2m** is projected for year end.

In the draft Ten Year Plan 2012-2022 \$3.0m has been budgeted for Rangitāiki Floodway widening – stage 2 (2012/13) and \$2.2m for the Rangitāiki spillway control structure (2013/14) (see *Appendix 3*).

Due to the geotechnical issues discussed previously there is likely to be a shortfall in the funding required to complete stages 1 and 2 of the Rangitāiki Floodway widening. It is however premature to provide an estimate of what that shortfall would be, as geotechnical options are still being investigated and further discussions with landowners undertaken.

## Proposed capex transfer within Rangitāiki-Tarawera Rivers Scheme 2011/12 budget

Rather than requesting a bring forward to the current year of funding from the planned flood repair capex budget in the draft Ten Year Plan 2011-2022, it is proposed that the current year projected unspent capex budget for Rangitāiki Floodway widening of \$1.2m be transferred to the current year Flood damage repair budget to meet the projected year end shortfall (overspend due to works progressing ahead of schedule) in that budget.

This will allow high priority flood damage repairs to continue while solutions to the geotechnical issues around the floodway widening are resolved. It will also allow the current year capex expenditure in the Rangitāiki-Tarawera Rivers Scheme to track close to budget by year end.

In the draft Ten Year Plan 2012-2022 there is of \$7.4m allocated for flood protection and repair capital works over the first three years (2012-2015) of the TYP. In due course funds will need to be transferred from this budget line back to the Rangitāiki Floodway widening budget.

At the same time as the above transfer, it is requested that carry forwards from the 2010/11 budget of \$338,000 for flood damage repairs and \$300,000 for Reach 10 canal stopbank works, previously lumped into the 2011/12 Rangitāiki floodway widening budget line, be reallocated to their respective budget lines for better transparency.

In summary it is requested that within the current 2011/12 budget for the Rangitāiki-Tarawera Scheme:

- (a) \$1.538m (\$1.2m + \$0.338m) be transferred from the Rangitāiki floodway widening budget line to the Flood damage repair works budget line, and
- (b) \$300,000 be transferred from the Rangitāiki floodway widening budget line to the Rangitāiki-Tarawera Reach 10 canal stopbanks budget line.

A reciprocal request to transfer \$1.2m from the Flood damage repair works budget line back to the Rangitāiki floodway widening budget line will be requested within the first three years of the TYP 2012-2022.

## **6 Financial Implications**

### **Current Budget**

The current year (2011/12) budget expenditure to date as of 31 January 2012 and projected year end expenditure for the Flood damage repair and Rangitāiki floodway widening lines of the Rangitāiki-Tarawera Rivers Scheme Capex budget have been presented in Tables 1 and 2 above. Other capex budget lines are tracking according (refer to *Appendix 2*). Approval of the requested transfer from the Floodway widening stage 1 line to the Flood damage repair works line within the Rangitāiki-Tarawera capex budget would allow capital expenditure to track close to budget by year end.

### **Future Implications**

Geotechnical and landowner agreement issues discussed above indicate that the budget required to complete the Rangitāiki Floodway Widening Stages 1 and 2 has been underestimated. When the quantity of this underestimate is known it will be brought to Council together with a request for a budget adjustment.

If the requested transfer is approved, there will need to be a future transfer of the \$1.2m back from the Flood damage repair line to the Rangitāiki Floodway widening line within the Rangitāiki-Tarawera capex budget. The timing of this will depend on progress with both projects. A request to undertake that transfer will be brought to Council at an appropriate time.

Ken Tarboton  
**Group Manager Environmental Hazards**

**for Chief Executive**

**8 March 2012**



## **APPENDIX 1**

### **Completed 2011 2012 Flood damage works on Rangitaiki Tarawera Rivers Scheme**





**Appendix 1: Completed 2011/12 Flood Damage Works on the Rangitāiki-Tarawera  
Rivers Scheme**

<b>Figure</b>	<b>Location and extent of flood damage repair</b>	<b>Expenditure</b>
1	Blacks Left bank Edgecumbe- 170 metres of rock lining strengthening.	94,248.74
2	Riverslea Wall Left Bank Edgecumbe 120 metres rock lining/ strengthening.	35,442.76
3	Lawrence( u/s Sullivans Breach -400 metres of river bank rock lining/strengthening.	6,896.12
4	Transpower – 160 metres of river bank strengthening/rock lining.	128,462.03
5	Erueas – 515 metres of rock replenishment/repairs	82,224.13
6	Kōkōhinau –Putuaki- 360 metre of repairs	205,652.89
7	Campbells –Putuaki -220 metres of rock repairs	221,010.17
8	Te Teko School – 120 metres of rock repairs	73,273.02
9	TeTeko Hotel – Neweys- 450 metres of rock repairs completed. Has been flooded 2 to 3 times no damage.	330,021.65
10	Neweys Gas line Left bank- 150 metres rock repairs	99,210.47
	Neweys Up stream Gas line Left bank- 180 metres of rock repairs	83,051.49
11	Gas Corp Right Bank- 220 metres of repairs	322,080.96
	Total	\$1,681,574.20



*Figure 1: Blacks Left bank Edgecumbe – 170 metres of rock lining strengthening*

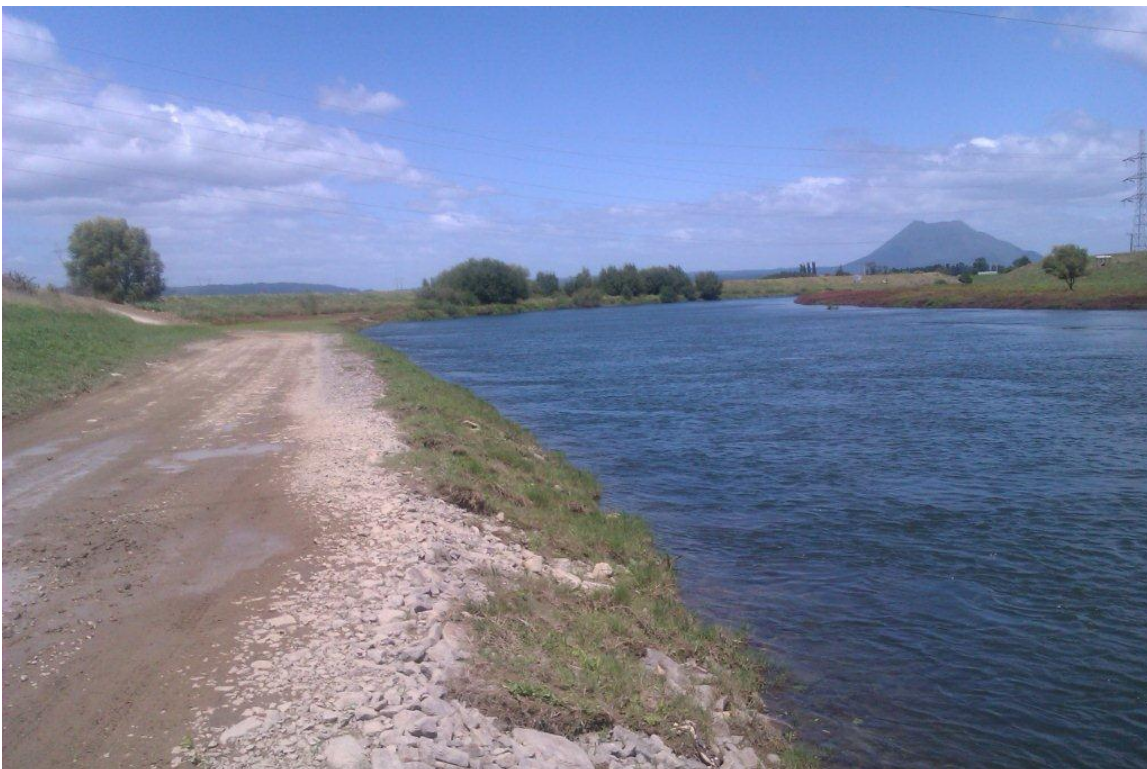


*Figure 2: Riverslea Wall Left Bank Edgecumbe 120 metres rock lining/strengthening. Note vegetation being established for ecological enhancement.*





*Figure 3: Lawrence u/s Sullivans Breach – 400 metres of river bank rock lining/strengthening. Note vegetation establishment*



*Figure 4: Transpower – 160 metres of river bank strengthening/rock lining*





*Figure 5: Erueras – 515 metres of rock replenishment/repairs. This was a 2004 Flood repair that had been undermined over time and required repair.*



*Figure 6: Kōkōhinau-Putuaki – 360 metre of repairs. This was a 2004 Flood repair that had been undermined overtime and required repair*





*Figure 7: Campbells-Putuaki – 220 metres of rock repairs. Immediately after completion. Topsoil placed on rock for vegetation enhancement to come.*



*Figure 8(a): Te Teko School prior to repair*





*Figure 8(b): Te Teko School during repair*



*Figure 8(c): Te Teko School – 120 metres of rock repaid completed*





*Figure 9(a): Te Teko Hotel. Left Bank looking downstream before repair*



*Figure 9(b): Te Teko Hotel. Left Bank looking upstream after repair*





*Figure 10: Neweys Gas line left bank – 150 metres rock repairs*



*Figure 11: Gas Corp right bank – 220 metres of repairs nearing completion*



## **APPENDIX 2**

### **Rangitaiki-Tarawera Rivers Scheme Capex Transfers**



## Appendix 2. Capital Expenditure for the Rangitiaki-Tarawera Rivers Scheme

Extract from the Quarterly Performance Report for the period ending 31 December 2011

### Activity: Rivers, Drainage & Flood Management Capital Expenditure for the Period ending 31 December 2011

Annual Budget 11/12  (\$000)		For the Quarter Ending 31 December				YTD			
		Actual (\$000)	Budget (\$000)	Variance (\$000)	Over/ Under	Actual (\$000)	Budget (\$000)	Variance (\$000)	Over/ Under
	<b>Rangitaiki-Tarawera Rivers Scheme</b>								
0	Rangitaiki-Tarawera Reach 10 canal stopbanks	49	0	(49)		55	0	(55)	Over
0	Omeheu Canal Stopbanks – Black’s Section	0	0	0		1	0	(1)	Over
0	Omeheu Canal Stopbanks – Berryman Section	0	0	(0)		6	0	(6)	Over
0	Omeheu Canal Stopbanks – Zonneveld Section	0	0	0	-	2	0	(2)	Over
0	Edgecumbe Flood Mitigation project-management	0	0	0	-	2	0	(2)	Over
599	Flood Damage Repair Works Rangitāiki-Tarawera 2011/12	2	150	148	Under	2	299	298	Under
0	EFM - Edgecumbe South-Western Stopbank reconstruction (SB2)	0	0	0	-	1	0	(1)	Over
0	Floodway stopbank raising	480	0	(480)	Over	482	0	(482)	Over
0	Geotech Works - fill storage	3	0	(3)	Over	10	0	(10)	Over
0	Geotech Works Langdons Cow shed Overlay site 15 Overlay	40	0	(40)	Over	137	0	(137)	Over
0	Geotech Works Sullivans Repairs Jan 2011 Seepage Overlay 12.9km	73	0	(73)	Over	75	0	(75)	Over
0	Geotech Works -Thornton School 2.3km to Butlers 3.05 Site 3 Berm/rock	0	0	0	-	110	0	(110)	Over
0	Geotech Works Thornton School Stop bank strengthening 2.3 km	0	0	(0)	Over	71	0	(71)	Over
0	Geotech Works Vierbooms Reids CentralRB 1.5 - 1.8 overlay	0	0	0	-	0	0	(0)	Over
0	Omeheu Canal Stopbanks - Campbell's Section	0	0	0	-	3	0	(3)	Over
0	Rangitaiki Floodway widening - Investigation & design	72	0	(72)	Over	190	0	(190)	Over
3,564	Rangitaiki Floodway widening - stage 1	33	891	858	Under	62	1,782	1,720	Under
0	Rangitaiki Left Stopbank: Te Teko School	0	0	0	-	1	0	(1)	Over
0	Rangitaiki Tarawera C R each 10 ORC Flood gates remedial works	102	0	(102)	Over	174	0	(174)	Over
0	Rangitaiki-Tarawera Matata Recovery Work	0	0	(0)	Over	4	0	(4)	Over
0	Rangitaiki-Tarawera stopbank strengthening (geotech) - Management	5	0	(5)	Over	12	0	(12)	Over
500	Rangitāiki-Tarawera stopbank strengthening (geotech) stage 2	0	125	125	Under	0	250	250	Under
<b>4,663</b>		<b>859</b>	<b>1,166</b>	<b>307</b>		<b>1,399</b>	<b>2,331</b>	<b>932</b>	

### Appendix 3. Draft Ten Year Plan 2012-2022 Capital Expenditure for the Rangitaiki-Tarawer Rivers Scheme

#### Activity: Rivers, Drainage & Flood Management Capital Expenditure for the 10 Years 2012-2022

Annual Plan 2011/12 \$000	Type	2012/13 \$000	2013/14 \$000	2014/15 \$000	2015/16 \$000	2016/17 \$000	2017/18 \$000	2018/19 \$000	2019/20 \$000	2020/21 \$000	2021/22 \$000
<b>Rangitaiki-Tarawera Rivers Scheme</b>											
0 Flood Protection and repair capital works	Improvement	2200	2200	3000	0	0	0	0	0	0	0
0 Rangitāiki-Tarawera stopbank stage 2	New	0	0	0	0	0	648	0	0	0	0
0 Stopbank reconstruction (1/6th total)	Replacement	0	0	0	0	0	0	0	680	707	734
0 Rangitaiki-Tarawera stopbank stage 1	Replacement	0	0	0	0	869	0	0	0	0	0
500 Rangitaiki-Tarawera stopbank stage 2	Replacement	500	0	0	0	0	0	0	0	0	0
599 EFM-Edgecumbe Eastern Stopbank reconstruction	New	0	0	0	0	0	0	0	0	0	0
0 Rangitaiki Left Stopbank: Te Teko School	New	0	0	126	0	0	0	0	0	0	0
0 Rangitaiki spillway control structure	New	0	2239	0	0	0	0	0	0	0	0
0 Tarawera stopbanks - stage 1	New	0	0	756	0	0	0	0	0	0	0
0 Tarawera stopbanks - stage 2	New	0	0	0	808	0	0	0	0	0	0
3564 Rangitaiki Floodway widening stage 2	New	3023	0	0	0	0	0	0	0	0	0
0 Floodway stopbank raising	New	0	0	0	0	0	0	1308	0	0	0
4663		5723	4439	3882	808	869	648	1308	680	707	734