



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Flood Protection Asset Management 2013/14

Supplementary Information

Contents

1.	Introduction	1
2.	Asset condition	1
3.	Wairarapa Scheme Advisory Committee resolutions.....	8
4.	Consents and Environmental Best Practice (Northern Wairarapa Rivers)...	12
5.	Scheme reserves and 2014/15 budget.....	13

1. Introduction

This report has been produced to elaborate on the information contained in the Report 14.533 on asset management activities within the Flood Protection Department for 2013/14. The report summarises:

- The condition rating data and graphs for individual river schemes and asset types;
- River Scheme Advisory Committee and Friends' Group resolutions;
- Environmental best practice in the Eastern schemes; and
- The scheme reserves, scheme rate changes and the annual works programme budgets.

2. Asset condition

The annual condition assessment process involves grading each individual asset from 1 to 5; an asset graded 1 is in very good condition, while an asset graded 5 is in poor condition and requires upgrade, replacement or should be written off.

The annual process of systematically visiting and assessing asset condition is a fundamental part of our overall asset management system and is continually being improved. Management Inspections also provide robustness to this process. When asset criticality is overlay this allows maintenance to be prioritised and ensures that Council is maintaining its critical assets.

Overall 87% of the assets are in a good or moderate condition (rated 1 to 3). In this context, good or moderate condition means that there is only general wear or tear with only minor or moderate maintenance required. 2.4% of the assets that are in poor condition are lengths of stopbanks or floodgates. These are considered to be critical assets and have been included in either maintenance or capital work programmes. The remaining 10.6% of assets that are in poor condition are not critical and are mainly low level erosion protection or vegetative structures.

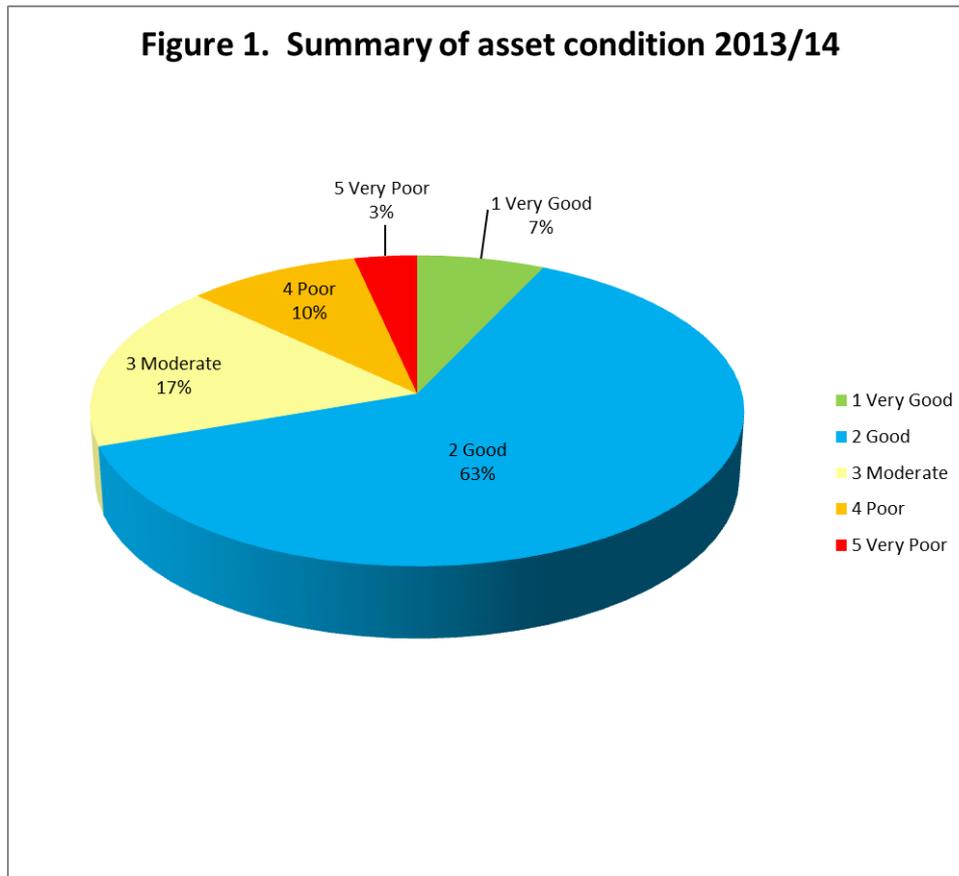
A summary of condition by asset type is shown in **Table 1**.

Asset Type	Condition Rating 2013/14					Grand Total
	1 Very Good	2 Good	3 Moderate	4 Poor	5 Very Poor	
Barrage Gate		2				2
Blockline		14	14	2		30
Bridge	1	3				4
Culvert	8	36	6	5		55
Debris Arrestor		11	3			14
Debris Fence		211	198	56	44	509
Demolition Line			9	11	3	23
Detention Dam		2				2
Diversion Cut		2				2
Drop Structure		2				2
Ducksbill Structure		2				2
Fascine			2			2
Fence		49	1			50
Fence Rail Iron Net		12	5	3	1	21
Floodgate	4	133	8	1	1	147
Floodwall	10	12	1			23
Floodway Sill		2				2
Groyne	3	994	125	26	30	1178
Riprap	25	194	62	13	1	295
Stopbank	105	572	66	115	4	862
Track	198	294	178	2		672
Training Bank		12				12
Weir		12	4	2		18
Willow		590	198	246	91	1125
Wingwall	2	9	1			12
Grand Total	356	3170	881	482	175	5064

% of Assets with that Rating 7.0% 62.6% 17.4% 9.5% 3.5%

Table 1: Condition by asset type

A summary of the asset condition is shown in **Figure 1**.



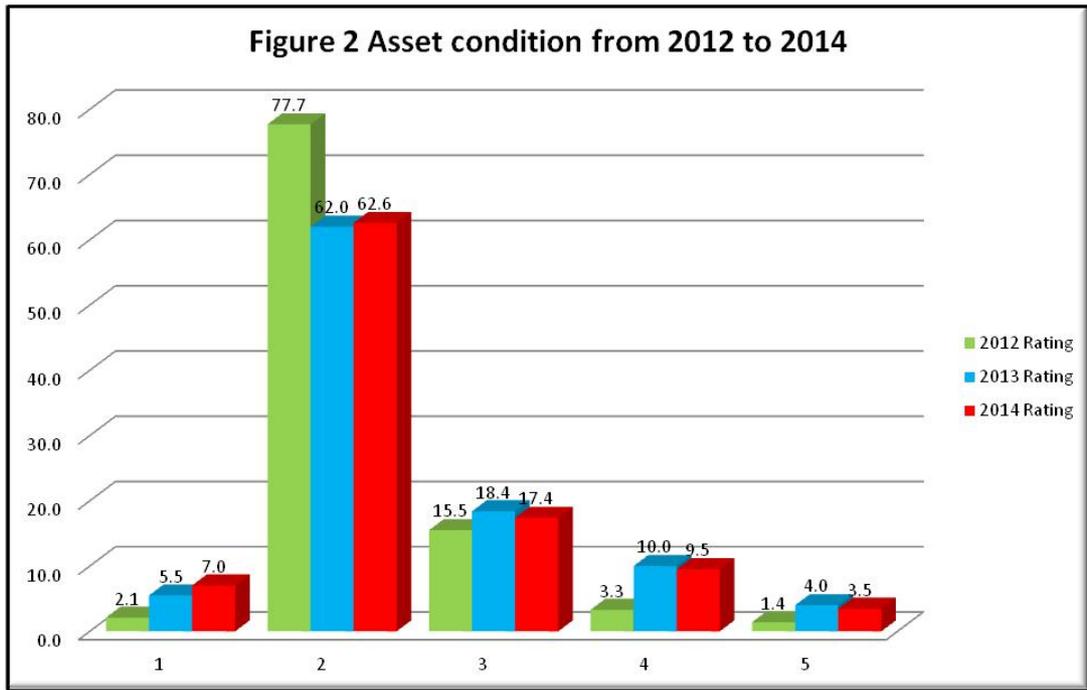
87% of assets achieved a 3 or above standard, where no or moderate maintenance is required.

10% of assets achieved a rating of 4. The majority of these assets are non-critical assets such as debris fences and willows that are nearing the end of their useful life. The stopbanks that fall into this category are located on the northern Wairarapa and Otaki Rivers. These stopbanks do not meet current standards and either have excessive vegetation growth or have been poorly constructed. In all instance the stopbanks have been identified and will be resolved either through the new floodplain management plans (FMP) for the Wairarapa or the existing Otaki FMP.

The flood gates assessed as rating 4 have been identified in works programmes.

3% of assets achieved a rating of 5. These assets are programmed for future work, or will be written off, as they are no longer required. The critical assets in this category are stopbanks in the Wairarapa and will be addressed through the floodplain management planning process.

A comparison of asset condition for the last 3 years is shown in **Figure 2** below. The noticeable change in asset condition from 2012 to 2013 was as a result of improvements in assessment techniques and not a change in the physical asset condition. Overall, asset condition is improving.

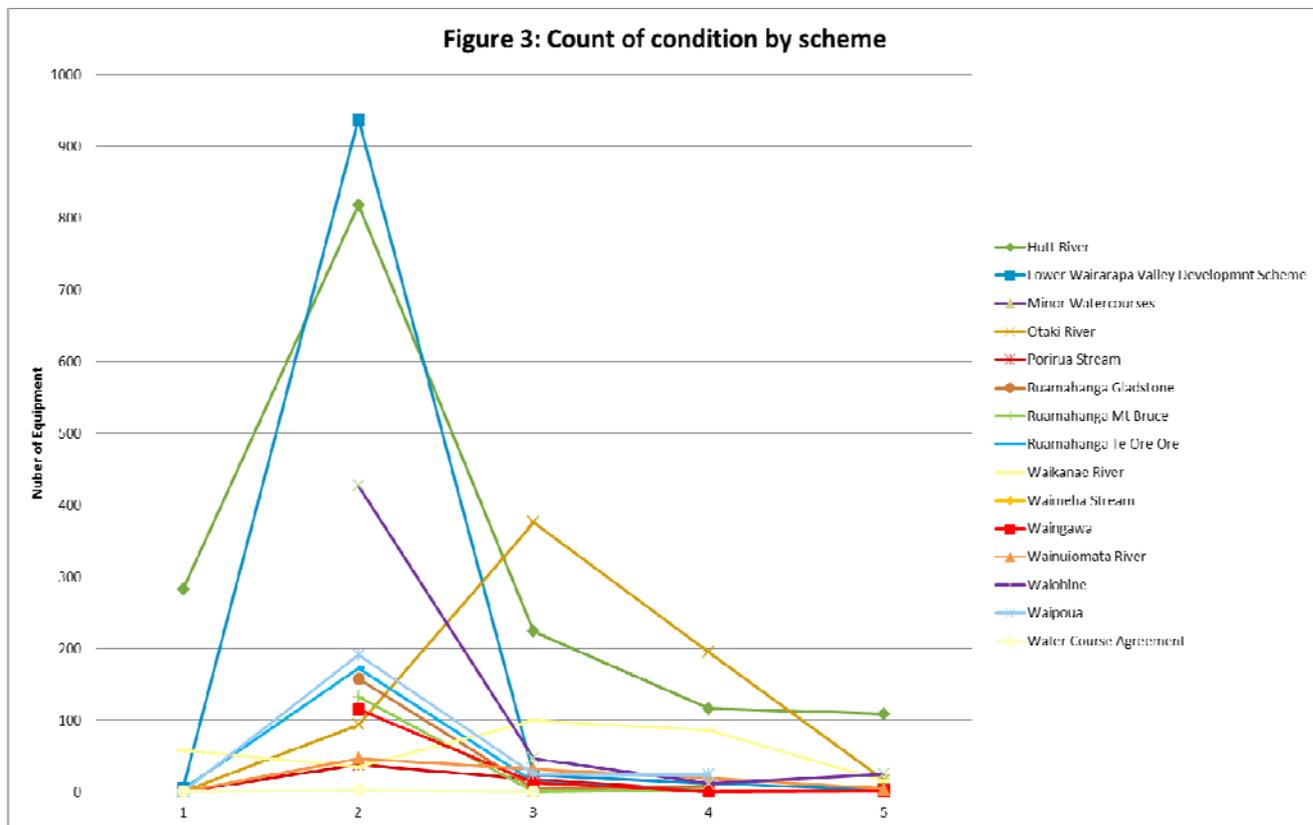


The following tables and graphs summarise the range of assets and their condition ratings across our river schemes. Also included is data on critical assets such as stop banks and floodgates and how these profile across the schemes as a percentage of the total asset base.

Scheme	Condition Rating 2013/14					Total
	1 Very Good	2 Good	3 Moderate	4 Poor	5 Very Poor	
Hutt River	283	818	224	116	109	1550
Lower Wairarapa Valley Development Scheme	6	938	24	12	3	983
Minor Watercourses			1			1
Otaki River	1	94	376	195	16	682
Porirua Stream	1	38	17	3		59
Ruamahanga Gladstone		158	5	8		171
Ruamahanga Mt Bruce		133	1	4		138
Ruamahanga Te Ore Ore	4	173	14	1		192
Waikanae River	58	35	100	86	15	294
Waimeha Stream			1			1
Waingawa		115	13	1	2	131
Wainuiomata River	1	47	32	20	5	105
Waiohine		427	47	12	25	511
Waipoua	1	191	25	24		241
Water Course Agreement	1	3	1			5
Grand Total	356	3170	881	482	175	5064

Table 2: Count of condition by scheme

Figure 3: Count of condition by scheme



Asset Type		Condition Rating 2013/14					Total
		1 Very Good	2 Good	3 Moderate	4 Poor	5 Very Poor	
Floodgate	Hutt River	4	10				14
	Lower Wairarapa Valley Development Scheme		108	4		1	113
	Otaki River		7	2			9
	Waikanae River		4	2			6
	Wainuiomata River		4		1		5
	Total		4	133	8	1	1
Stopbank	Hutt River	93	133	11			237
	Lower Wairarapa Valley Development Scheme	6	316	9	6	2	339
	Otaki River	1	40	10	62		113
	Porirua Stream			8			8
	Ruamahanga Gladstone		5	3	4		12
	Ruamahanga Mt Bruce		4		3		7
	Ruamahanga Te Ore Ore	4			1		5
	Waikanae River		7	1	8		16
	Waingawa River		3	4	1		8
	Wainuiomata River	1	12	5			18
	Waiohine River		43	7	10	2	62
	Waipoua River		9	8	20		37
	Total		105	572	66	115	4
Grand Total		109	705	74	116	5	1009

Table 3: Condition of critical asset by scheme

Figure 4: Total asset condition by scheme

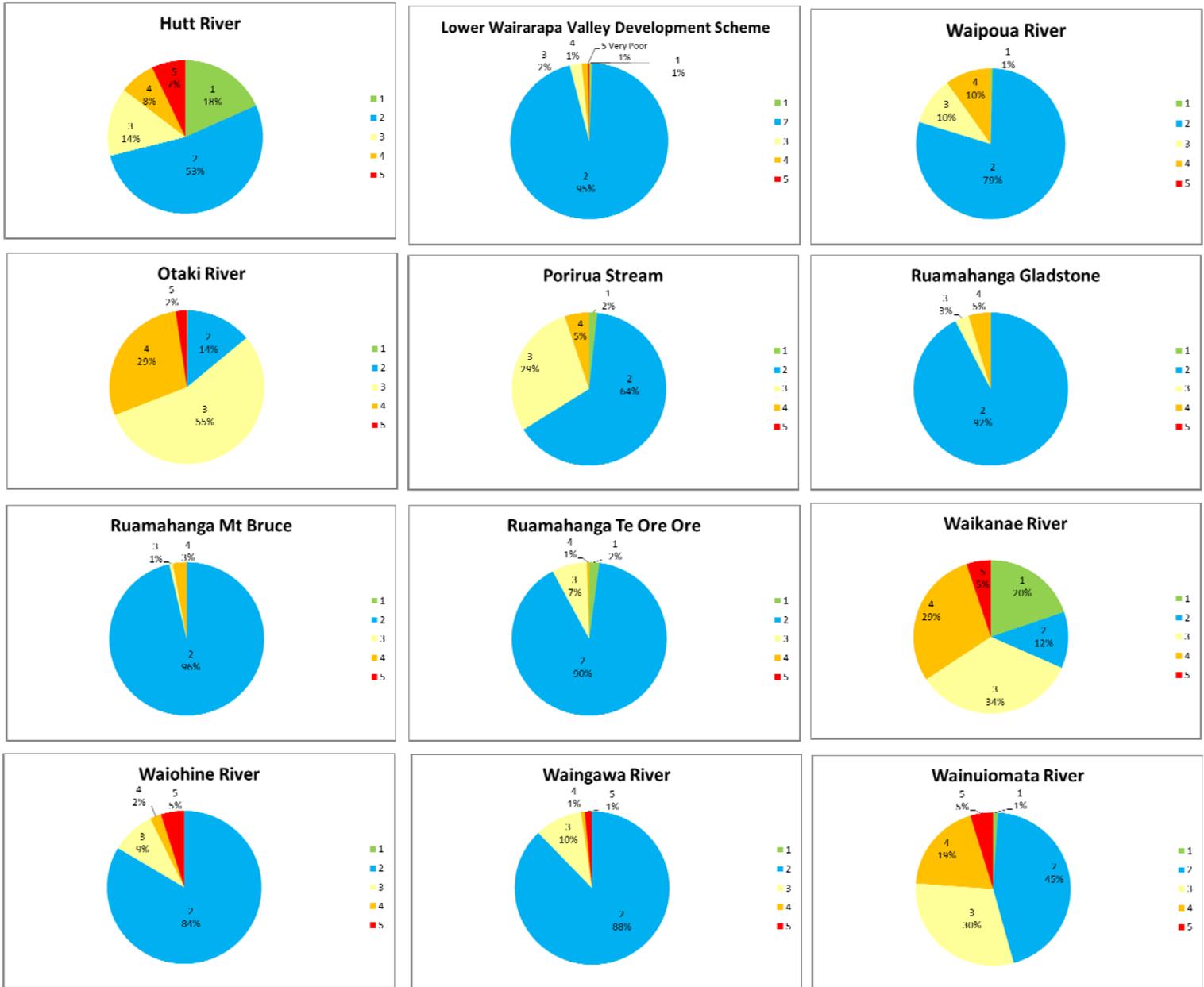


Figure 5: Condition per asset type by scheme



3. Wairarapa Scheme Advisory Committee resolutions

Table 4 details the Scheme resolutions passed at the various Wairarapa Scheme Advisory Committees held in 2013/14.

Scheme	Resolution
<p>Lower Wairarapa Valley Development Scheme (LWVDS) Advisory Committee</p>	<p>The Lower Wairarapa Valley Development Scheme Advisory Committee confirmed that the Scheme Annual Report and Financial Statement be accepted, and that the Scheme assets had been maintained to the satisfaction of the Committee.</p> <p>M Lovett / S Barton</p> <p>The Lower Wairarapa Valley Development Scheme Advisory Committee recommended to the GWRC Strategy and Policy Committee that:</p> <ol style="list-style-type: none"> 1. The proposed 2014/15 works programme for the Lower Wairarapa Valley Development Scheme Advisory Committee be adopted at an estimated cost of \$1,734,293. 2. The Lower Wairarapa Valley Development Scheme rates for 2014/15 be increased by 5%. 3. Lower Wairarapa Valley Development Scheme raise a loan of \$778,500 through the Greater Wellington Regional Council to fund the 2014/15 financial year development works programme. <p>S Barton / M McConachy</p>
<p>Waiohine River Floodplain Management Planning Advisory Committee</p>	<p>That the Waiohine River Flood Plain Management Advisory Committee confirms that:</p> <ol style="list-style-type: none"> 1. The Scheme Annual Report and Financial Statement are accepted 2. The Waiohine River scheme has been maintained to the satisfaction of the Committee <p>R Craig / C Engel –Carried</p> <p>That the Waiohine River Flood Plain Management Advisory Committee recommends to the Strategy & Policy Committee that:</p> <ol style="list-style-type: none"> 3. The Proposed 2014/2015 works programme be approved at an estimated cost of \$359,000. 4. The Scheme rates for the year 2014/2015 are increased by 2%. <p>B Donaldson / S Atkinson</p> <p>MOTION: that the scheme rates are increased 2% in next financial year was voted on.</p> <p>Ray Craig and Chris Engel voted against</p> <p>Michael Roera abstained from the vote</p>

<p>Waingawa River Advisory Committee</p>	<p>That the Waingawa River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement be accepted 2. Waingawa River scheme has been maintained to the satisfaction of the committee. <p>G Tulloch/R Butler – Carried</p> <p>That the Waingawa River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/2015 works programme be approved at an estimated cost of \$182,000. 4. Scheme rates for the year 2014/2015 are increased by 7% <p>L Johnson/B Cameron - Carried</p>
<p>Upper Ruamahanga River - Mt Bruce Advisory Committee</p>	<p>That the Mt Bruce River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement are accepted. <p>Mike Wyeth/Ian Dewes</p> <ol style="list-style-type: none"> 2. Mt Bruce River scheme has been maintained to the satisfaction of the committee. <p>Gillian Churcher/Mike Wyeth</p> <p>That the Mt Bruce River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/15 works programme be approved at an estimated cost of \$116,500. <p>Mike Wyeth/Ian Dewes</p> <ol style="list-style-type: none"> 4. Scheme rates for the year 2014/15 are increased by 4% <p>Gillian Churcher/Mike Wyeth</p> <p>Four in favour, two against.</p>
<p>Upper Ruamahanga River Te Ore Ore Advisory Committee</p>	<p>That the Te Ore Ore River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statements be accepted 2. Te Ore Ore Scheme has been maintained to the satisfaction of the Committee <p>David Holmes/Steve Blakemore</p> <p>That the Te Ore Ore River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/15 works programme be approved at an estimated

	<p>cost of \$150,000</p> <p>4. Scheme rates for the year 2014/15 be increased by 3%</p> <p>Steve Blakemore/David Holmes</p>
<p>Upper Ruamahanga River Gladstone Advisory Committee</p>	<p>That the Gladstone River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement be accepted R Ashby/K Wells 2. Gladstone River scheme has been maintained to the satisfaction of the Committee M Williams/B Patrick <p>That the Gladstone River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/15 works programme be approved at an estimated cost of \$160,000 B Patrick/R Ashby <p>That the Gladstone River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 4. Scheme rates for the year 2014/15 be increased by 9% K Wells/B Patrick <p>Richard Stevenson and Mike Palmers voted against the increase of 9%.</p>
<p>Waipoua River Advisory Committee</p>	<p>That the Waipoua River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement are accepted 2. Tom Wyeth / Ian Wyeth <p>That the Waipoua River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 3. Waipoua River scheme has been maintained to the satisfaction of the Committee 4. Tom Wyeth / Alistair Miller <p>That the Waipoua River Flood Plain Management Advisory Committee recommends to the Strategy & Policy Committee that the:</p> <ol style="list-style-type: none"> 5. Proposed 2014/2015 works programme be approved at an estimated cost of \$102,125. 6. Scheme rates for the year 2014/2015 are increased by 3%. <p>Alistair Miller / Ian Wyeth</p>

<p>Taueru and Whangaehu Advisory Committees</p>	<p>The Whangaehu Advisory Committee did not hold a meeting in 2013/14.</p> <p>That the Taueru River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement be accepted H Buchanan/B Patrick 2. Taueru Scheme has been maintained to the satisfaction of the committee H Buchanan/B Patrick <p>That the Taueru River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/2015 works programme be approved at an estimated cost of \$5,500 B Patrick/ H Buchanan 4. Scheme rates for the year 2014/2015 be increased by 8% H Buchanan/B Donaldson
<p>Kopuaranga River Advisory Committee</p>	<p>That the Kopuaranga River Management Advisory Committee confirms that the:</p> <ol style="list-style-type: none"> 1. Scheme Annual Report and Financial Statement are accepted. 2. Kopuaranga River Scheme has been maintained to the satisfaction of the committee. N. Cameron/J. Percy <p>That the Kopuaranga River Management Advisory Committee recommends to the Strategy and Policy Committee that the:</p> <ol style="list-style-type: none"> 3. Proposed 2014/15 works programme be approved at an estimated cost of \$55,000. 4. Scheme rates for the year 2014/15 are increased by 85%. H. Dickens/N. Detheridge – Davies
<p>Friends of the Otaki River</p>	<p>Meeting to be held in October 2014.</p>
<p>Friends of the Waikanae River</p>	<p>The Friends of the Waikanae River confirm that the reach of the river between SH1 and the estuary actively managed by GWRC has been maintained to their satisfaction.</p>

Table 4: Scheme and Friends' resolutions

4. **Consents and Environmental Best Practice (Northern Wairarapa Rivers)**

In 2011 GWRC Flood Protection, Department of Conservation, Fish & Game, Forest & Bird, Kahungunu ki Wairarapa, and Rangitāne o Wairarapa produced the *Wairarapa River Management Agreement* which was aimed at ensuring an agreeable approach to river management in coming years. The key matters addressed by the *River Agreement* related to improving environmental best practice and organising a research and monitoring programme which would enable a greater understanding of environmental effects of river management.

Below are a number of items that have progressed in 2013/2014 in relation to the *River Agreement*.

- Completion of the study by Dr Russell Death into the effects of the instream activities on local fish communities.
- As part of the development of the Te Kāuru FMP, a cultural values report was completed: *Cultural Values Associated With Te Kāuru: The Upper Ruamahanga River and Tributaries*.
- Flood Protection staff played the lead role in attaining a grant from the NZ Walking Access Commission in the amount of \$8,000. Grant funding will be used to attain a legal easement across private land at the back end of DOC's Carter Reserve near Gladstone. This easement will then provide recreational access to the Ruamahanga River in a reach where there is no public access for a length of 8km. The Department of Conservation and Sustainable Wairarapa Inc must be acknowledged for their contributions in this project.
- The Waiohine/Mangatarere River scheme continued to support native planting projects associated with Mangatarere River restoration work.
- Other Native planting efforts include:
 - Ruamahanga River, XS223, left bank. Machine clearance of weed species prior to landowner planting programme.
 - Whangaehu River: 300 plants provided to landowner planting programme
 - Kopuaranga: Plants provided to interested scheme members
 - Ruamahanga River, Tirohanga Reserve (Double bridges) working with MDC on native planting programme.
 - Waipoua River: Urban walkway reserve (near QEII Park) working with MDC on native planting programme.

5. Scheme reserves and 2014/15 budget

The table 5 details the financial position at 30 June 2014, rates increases and the estimated budget for 2014/15 works programmes.

Scheme	2013/14			2014/15	
	Scheme Reserve	Major Flood Investment Reserves	Total Reserves	Rate (%)	Estimated Works
Lower Valley	1,858,253	1,072,435	2,930,688	5	\$1,734,293
Waiohine	621,268	35,370	656,638	2	\$359,00
Mount Bruce	71,773	8,017	79,790	4	\$116,500
Te Ore Ore	222,424	8,017	230,441	3	\$150,000
Gladstone	62,701	8,017	70,718	9	\$160,000
Waingawa	105,537	23,581	129,118	7	\$182,000
Waipoua	115,583	23,581	139,164	3	\$102,125
Kopuaranga	-44,664		-44,664	85	\$55,000
Taueru	10,500		10,500	3	\$5,500
Whangaehu	10,237		10,237	3	\$7,000
Eastern River Total	3,065,081	1,179,017	4,244,098		\$2,921,418
Western Rivers Tota;	2,527,135	1,179,017	3,706,152		\$3,695,600
Sub Total of River Schemes Reserves	5,592,216	2,358,034	7,950,250		
GW Flood Contingency Reserve	1,388,021		1,388,021		
GW Major Flood Investment		2,358,034	2,358,034		
Total Reserves of River Schemes	6,980,237	4,716,068	11,696,305		6,617,018

Table 5: Scheme budget and reserves