



Flood Protection

Asset Condition Report 2011/12

(Supplementary Information for Eastern River Schemes and Western Rivers)

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1. Executive Summary

1.1 Introduction

This report contains the following information:

- Eastern Rivers Advisory Scheme information detailing the resolutions from each annual committee meeting
- The annual Eastern rivers performance statements.
- A brief summary for each of the Flood Protection River Schemes, detailing the operational activities undertaken, the scheme reserves and the annual works programme budget.

1.2 Eastern Rivers Advisory Committees annual meetings

The Eastern Rivers Advisory Committees annual meetings confirmed that:

- The Rivers were maintained to the satisfaction of the Committees
- The proposed budgets, rate increases and works programmes were adopted by the Committees for 2012/13

1.3 Performance Statements

The annual performance statements for the Eastern Rivers confirmed that the measures were generally met, and where they were not, the items were either minor and were programmed for completion in the next year or part of long term improvements that will be reviewed within the Floodplain Management Planning and Asset Management processes.

1.4 Works Programmes

There was one significant flood event in the upper Wairarapa Valley River, on 3 March 2012, which had a return period in the order of 5 to 10 years. The relatively small amount of damage caused by this event has been repaired from maintenance budgets. The Western area did not experience any significant flooding events and programmed work was completed as planned.

1.5 Reserves

There was no need to draw on the reserves and all work was completed from maintenance budgets.

The reserves for each river for year ending June 30 2012 are detailed below:

Scheme Reserves year ending June 2012

Scheme	Scheme Reserve	Major Flood Investment Reserves	Total Reserves
Lower Valley	\$1,788,185	\$905,169	\$2,693,354
Waiohine	\$531,320	\$29,856	\$561,176
Mount Bruce	\$75,357	\$6,768	\$82,125
Te Ore Ore	\$171,720	\$6,768	\$178,488
Gladstone	\$67,617	\$6,768	\$74,385
Waingawa	\$85,162	\$19,904	\$105,066
Waipoua	\$67,580	\$19,904	\$87,484
Kopuaranga	-\$46,054	\$0	-\$46,054
Upper Mangatarere	\$27,049	\$0	\$27,049
Tuaeru	\$10,284	\$0	\$10,284
Whangaehu	\$10,481	\$0	\$10,481
Total Eastern Schemes	\$2,788,701	\$995,137	\$3,783,838
Western Rivers	\$2,157,906	\$995,216	\$3,153,122
Drainage Schemes	\$210,875		\$210,875
GW Flood Contingency Reserve	\$1,271,082		\$1,271,082
GW Major Flood Investment		\$1,990,432	\$1,990,432
Total Flood Protection	\$6,428,564	\$3,980,785	\$10,409,349

2. Lower Wairarapa Valley Development Scheme

2.1 Summary

A flood event with a 2 year return period occurred in March 2012. The flood was of short duration and caused minor damage to the river banks at Tuckers and Smiths on the Ruamahanga River. Repairs were completed within the maintenance budget and will require more preventive work over the next few years.

The Tobin's stopbank project was completed and only finalising the land matters remain. All other programmed work has been completed within budget.

The work on the Tawaha investigations, design and consultation with the affected landowners is progressing and an application for the Resource Consent is expected to be lodged soon. Part of the work involving removal of willows from the stream on John Bargh's and Catherine Cross's properties, has been completed as it did not require a resource consent. This work has already made a huge improvement to the drainage flows in this reach.

The current annual works programme budget is \$1,353,600 with the flood contingency reserve closing balance being \$1,788,185 and the Major Flood Damage Reserve Fund closing balance being \$905,169.

2.2 Resolutions from Annual Scheme Meetings 2012

The Lower Wairarapa Valley Development Scheme (LWVDS) Advisory Committee confirms that:

1. The LWVDS Annual Report and Financial Statement be accepted.
2. The LWVDS assets have been maintained to the satisfaction of the Committee.

S Barton/G Vollebregt

The Lower Wairarapa Valley Development Scheme (LWVDS) Advisory Committee recommends to the Economic Wellbeing Committee that:

3. The proposed LWVDS 2012/13 works programme be adopted at an estimated cost of \$1,348,500
4. The LWVDS rates for the year 2012/13 are increased by 3%.
5. The LWVDS raise a loan of \$441,000 through the Greater Wellington Regional Council.

K Sexton/T Sutherland

2.3 Performance Measures – Lower Wairarapa Valley Development Scheme

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirements not to exceed \$100,000 in any year	No deferred maintenance	Criteria satisfied
	Scheme not to incur or carry financial deficit without Council approval	The scheme reserve balance is \$1,788,185 and the Major Flood Recovery Fund balance is \$905,169	
	Average flood damage expenditure not to exceed 20% of the total Scheme expenditure over a five year period.	5 year criteria. Not required till 2012/2013	5 yearly criteria
Stopbanks	Flood capacity of major stopbanks to be reviewed and compared to design flood capacity	5 year criteria	5 yearly criteria
	0% (<5%) of the stopbank length has deferred maintenance.	There is no deferred maintenance of stopbanks.	Criteria satisfied
	Not more than 10% of the stopbanks to have berm width of less than 10 metres.	This criterion has been reviewed as part of the LWVDS Review. A number of high-risk areas have been identified, and banks in those areas will be either protected by boulder groynes or by stopbank set back. In other areas where the risk is low, the banks will be protected primarily by vegetation, and if it becomes necessary, by boulders. There are no plans to increase the berm width. An 11 year programme to strengthen the banks is underway and progressing.	Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	As-built stopbank formation levels and dimensions to be restored within three months of minor surface damage being reported, and within one month of major surface damage being reported. Grass cover to be restored within three months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within three months of being reported.	Some stopbanks damaged by stock has been repaired by the landowners. Some minor repairs still remaining to be done. The formation level of stopbanks on both sides of Ruamahanga just upstream of Lake Onoke will be restored to a standard level starting in the coming financial year and will be completed in the following year.	Criteria partly satisfied
Heavy Bank Protection	Repairs to damaged heavy bank protection structures to be carried out within the same financial year.	There were no damages to heavy bank protection structures.	Criteria satisfied
Vegetation Buffer Zone	Less than 10% of the length of riverbanks was subject to active bank erosion.	Minor erosion to vegetation buffer zone has been repaired.	Criteria satisfied
	No more than 5% of the designated buffer zone area to be lost to river erosion.	5 year criteria. Not required till 2012/13	5 yearly criteria
	Stock exclusion fencing to be maintained in satisfactory condition, and landowners to be prevented from grazing buffer zone areas.	Fencing in the new Tobin Stopbank area has been completed.	Criteria satisfied
Fences	0km (<2km) of fence was renewed. 1.2km of new fence was constructed. Also, 2.9km of electric fences were constructed.	No other old fences needed renewal	Criteria satisfied
Floodway Sills	As-built sill formation level to be compared to design level.	5 year criteria. Not required till 2012/13	5 yearly criteria
	Deferred maintenance requirement to be nil	No deferred maintenance work.	Criteria satisfied
	As-built sill formation level to be restored within one month of damage being reported. Grass cover to be restored within one month of bare patches being	There were no damages to the sills at Hikunui and Awaroa	Criteria satisfied.

Measure	Performance Criteria	Comment	Achievement
	reported. Rabbit hole and subsidence damage to be repaired within one month of being reported. Trees and scrub on the sill to be removed within three months of being reported. Scouring upstream and downstream of the sill to be repaired within one month of being reported.		
Duckbill Structure	The "Duckbill" structure to be inspected every six months, and after each major flood, and damage to the mattresses and baskets to be repaired within three months.	There was a minor flood event in March 2012, however no damage occurred. There are no outstanding maintenance issues.	Criteria satisfied
	Damaged reinforced grass to be repaired within one month of bare patches being reported.	There were no damages to the reinforced grass cover.	Criteria satisfied
	Deferred maintenance to be nil.	No deferred maintenance work	Criteria satisfied.
	The Reno mattresses to be kept free of vegetation, and the grass on the batter slopes and berm to be mowed regularly and maintained in a healthy state.	Regular spraying carried out to keep the Reno mattresses free of vegetation and mowing of grass being done regularly.	Criteria satisfied
Culverts and Floodgates	All floodgates and culverts to be inspected annually for diameters greater than 600mm, and once every three years for diameters less than 600mm.	All floodgates inspected	Criteria satisfied
	Floodgate damage and culvert blockages to be repaired within 1 month, and external reports of damage to be responded to within 10 working days.	Total of 6 flood gates have been repaired and 17 culvert channels have been cleaned. A total of 19 culverts need attention, including downstream channel cleaning. These have been scheduled for next year.	Criteria partly satisfied

Measure	Performance Criteria	Comment	Achievement
	A structural assessment of large floodgate structures to be undertaken, including visual inspection of the culvert interior.	5 year criteria. Not required till 2012/13	5 yearly criteria
Grade Control Structures	Deferred maintenance requirement to be nil.	No deferred maintenance	Criteria satisfied
	Reinforced concrete grade control structures to be inspected five yearly and damages to be repaired within three months.	5 year criteria. Not required till 2012/13	5 yearly criteria
Barrage Radial Gates	Control House Telemetry to be inspected six monthly with repairs effected within one month	Inspections and maintenance has been carried out by Hydrology Section. Two extra pieces of equipment has been installed – an inclinometer to show the gate position and a velocity meter to monitor the velocity of the water.	Criteria satisfied
		The lifting/lowering mechanism to be inspected six monthly with repairs to be effected within one month.	
		Lifting gear was inspected and found working satisfactorily.	Criteria satisfied
	General inspection of the Barrage, control joints and abutments to be carried out annually with maintenance scheduled for the following year.	No repairs required.	Criteria satisfied
	Radial Gates to be inspected five yearly and any painting requirements to be scheduled for the following year.	The gates have been painted during January to March 2011.	5 year criteria satisfied.
	The channel to be inspected for any blockages after major flood events, and the maintenance	There is no blockage in the channel.	Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	requirements to be scheduled for the following year.		
	The structure to be thoroughly examined for any earthquake damage.	No damage due to earthquakes.	Criteria satisfied.
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan and Scheme Resource Consent conditions.	All work carried out according to the LWVDS Global Resource Consent. No incidents reported.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and work programmes to be adopted at Advisory Committee meetings.	All reports were adopted by the LWVDS Advisory Committee at its annual meeting in May 2012.	Criteria satisfied.
	Ratepayer satisfaction to be gauged at Ward meetings.	Ward meetings were held for Tawaha/Moiki, East Pukio/Mahaki, West Pukio and Turanganui/Pouawha Wards in February 2012, and no dissatisfaction with the scheme management was expressed.	Criteria satisfied.
	Annual rates, annual reports, and Scheme reviews to be approved by the Council.	Scheme Annual rates and reports have been approved by council.	Criteria satisfied.
	Consultation with the Department of Conservation, Wellington Fish and Game Council and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements.		Criteria satisfied.
Overall	Council endorsement of Scheme management approach to be obtained in scheme reviews.	Scheme review was completed in June 2008 and was endorsed by the council.	Criteria satisfied.
	Scheme maintenance standards to be endorsed as part of the annual peer review process for Wairarapa river management practices.	No peer review was carried out during this financial year too, and there are no plans for regular yearly peer reviews at present.	This criteria not applicable at present, and needs review.

Measure	Performance Criteria	Comment	Achievement
	Overall Assets Condition	Overall, the assets are maintained in a satisfactory condition. No adverse comments received from either the Advisory Committee or the rate payers on the condition of assets.	Criteria satisfied.

3. Waiohine – Mangatarere River

3.1 Summary

The physical condition of the Waiohine - Mangatarere scheme is continuing to improve. In recent years, including 2011/2012, very little work has been necessary in the lower reaches of the river (below State Highway 2 Bridge). The replacement of vegetative edge protection with rock groynes in erosion prone areas is ongoing. Approximately 1600 tonne of rock was placed at high erosion risk areas in 2011/2012.

The lack of floods has allowed substantial success in preventative maintenance work such as vegetative buffer establishment.

The current annual works programme budget is \$346,100 with the flood contingency reserve closing balance being \$531,320 and the Major Flood Damage Reserve closing balance being \$29,856.

3.2 Resolutions from Annual Meeting 2012

That the Waiohine River Floodplain Management Planning Advisory Committee confirms that the:

1. Scheme Annual Report and Financial Statement be accepted.

B Slater/B Vines

2. Waiohine River scheme has been maintained to the satisfaction of the Advisory Committee.

C Engel/J Quinn

That the Waiohine River Floodplain Management Planning Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$346,400
4. Scheme rates for the year 2012/13 be increased by 3%.

B Knowles/B Vines

3.3 Performance Measures – Waiohine

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirements not to exceed \$50,000.		Criteria satisfied.
	The scheme is not to incur or carry financial deficit without prior Council approval.	The Scheme began the financial year with a reserve balance surplus of \$466,474. End of financial year reserve balance is \$531,320	Criteria satisfied.
	Average flood damage expenditure not to exceed 20% of the total scheme expenditure over a five year period.	5 yearly criteria	To be reviewed in 2012/2013.
Stopbanks	Stopbank capacities to be reviewed and compared to design flood capacity.	5 yearly criteria	To be reviewed in 2012/2013.
	0% (<10%) of the stopbank length has a condition rating of 4 or 5.		Criteria satisfied.
	No more than 10% of the total stopbank length to have a berm width or less than 20 metres.	A review of March 2011 aerial photography shows that approximately 2.4km out of the 16.4km of total stopbank length have a berm width of less than 20 metres. This equates to 14.6%. No significant change in 2012. The Waiohine Floodplain Management Plan is currently under review and a significant upgrade and/or relocation of stopbanks is possible.	Criteria not satisfied.

Measure	Performance Criteria	Comment	Achievement
	As-built stopbank formation levels to be repaired within three months of being reported. Major damage to be repaired within one month of being reported. Grass cover to be repaired within three months of bare patches being reported. Rabbit hole and subsidence to be repaired within one month of being reported. Trees and scrubs on stopbanks to be removed within three months of being reported.	No reported damage to stopbank during the last financial year.	Criteria satisfied.
Channel Fairway	No less than 80% of the active channel length to be within the designated channel fairway.	5 yearly criteria	To be reviewed in 2012/2013
	Proportion of the defined channel fairway covered with scrub or tree re-growth not to exceed 5% of the total fairway.	5 yearly criteria	To be reviewed in 2012/2013
Buffer Zone	No more than 10% of the river banks to be subject to active bank erosion.	Following a desktop assessment with the latest aerial photography (March 2011) and relying on the area knowledge of field supervisor(s); approximately 2km of river bank are subject to active bank erosion (6.3% of the total 32km of river bank).	Criteria satisfied
	No more than 5% of the designated buffer zone area of 110 hectares to be lost to river erosion.	5 yearly criteria	To be reviewed in 2012/13
	The maintenance of a planted (by lopping & re-planting) buffer zone area of at least 20 hectares.	5 yearly criteria	To be reviewed in 2012/13
	Heavy rock protection structures to be repaired within three months.		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	Stock exclusion fences to be maintained in satisfactory condition.		Criteria satisfied
Environment	River management practices to conform to the Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions.	Consideration of habitat prior to works and alternatives methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory Committee meetings.	The above was presented to the Waiohine/Mangatarere River Floodplain Management Advisory Committee at the annual meeting held on 10 May 2012.	Criteria satisfied
	Confirm ratepayer satisfaction at ratepayer meetings.	A ratepayer meeting was not held this year. Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer satisfaction has been confirmed.	Criteria satisfied
	Annual rates, annual reports, and Scheme reviews to be approved by the Council.		Criteria satisfied
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements.	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups.	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews.	A review of the Waiohine FMP is currently being undertaken.	5 yearly criteria – Not satisfied

Measure	Performance Criteria	Comment	Achievement
	Endorsement of Scheme maintenance standards when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices.	Review of the Asset Management business process is currently underway. Peer review requirements are part of the overall asset management review.	Criteria – Not satisfied

4. Waingawa River

4.1 Summary

The physical condition of the scheme is continuing to improve. Bed and beach recontouring continue to be the predominant works undertaken, with follow up willow planting once areas are stabilised.

There are a few areas of erosion, which are directly affecting farmland and there are still heavily vegetated areas within the active channel (dominated by pest plant species) which need mechanical clearance work to achieve the design channel alignment.

The March 2011 flood event was nearly a 5-year-return period, however the river was in good condition and no significant erosion, channel migration or loss of vegetative buffer was reported following this event. Significant work undertaken during November 2011 proved to be successful and robust in the March 2012 flood.

The current annual works programme budget is \$177,600 with the flood contingency reserve closing balance being \$85,162 and the Major Flood Investment Fund closing balance being \$19,904.

4.2 Resolutions from Annual Scheme Meetings 2012

That the Waingawa River management Advisory Committee confirms that the:

1. Scheme Annual report and Financial Statement be accepted
2. Waingawa River scheme has been maintained to the satisfaction of the Committee

B Cameron/G Tulloch – Carried

That the Waingawa River Management Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$178,600

Scheme rates for the year 2012/13 be increased by 3%

B Cameron/R Butler - Carried

4.3 Performance Measures – Waingawa

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirement not to exceed \$20,000		Criteria satisfied
	Scheme not to incur or carry financial deficit without prior Council approval.	The Scheme began the financial year with a reserve balance surplus of \$71,835. End of financial year reserve balance is \$85,162.	Criteria satisfied
	Average flood damage expenditure not to exceed 20% of the total Scheme expenditure over a 5 year period.	5 yearly Criteria – satisfied	To be reviewed in 2012/13
Stopbanks	Stopbank flood capacities to be reviewed and compared to design flood capacity.	5 yearly Criteria – satisfied	Not applicable again until 2012/2013.
	Less than 5% of the stopbank length has a condition rating of 4 or 5.	0% of the stopbanks have a condition rating of 4 or 5	Criteria satisfied
	Less than 20% [17.2%] of the stopbanks have a berm width of less than 20 meters.		Criteria satisfied
	As-built stopbank formation levels and dimensions to be restored within 3 months of minor surface damage being reported, and within 1 month of major surface damage being reported. Grass cover to be restored within 3 months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within 1 month of being reported. Trees and scrub on the stopbank to be removed within 3 months of being reported.		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
Channel Fairway	No less than 80% of the active channel length to be within the designated channel fairway	5 yearly – not satisfied	Not applicable again until 2012/13
	No more than 10% of the length of river banks is to be subjected to active bank erosion.		Criteria satisfied
Buffer Zone	No more than 5% of the designated buffer zone area of 225 hectares to be lost to river erosion.	5 yearly criteria – satisfied	Not applicable again until 2012/2013
	The maintenance of a planted buffer zone area of at least 20 hectares	5 yearly criteria-satisfied	Not applicable again until 2012/13
	Heavy protection structures to be repaired within three months.		Criteria satisfied
	Stock exclusion fencing to be maintained.		Criteria satisfied
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions.	Consideration of habitat prior to works and alternative methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory Committee at the annual meeting held on 3 May 2012		Criteria satisfied
	Confirm ratepayer satisfaction at yearly ratepayer meetings	A ratepayer meeting was not held this year. Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer	Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
		satisfaction has been confirmed.	
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme resource Consent requirements.	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups.	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews.	Floodplain management Plan development is in progress and will seek Council endorsement once completed.	5 yearly Criteria Not satisfied
	Endorsement of Scheme maintenance standards when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices.	Review of the asset management business process is currently underway. Peer review requirements are part of the overall asset management review.	Criteria – Not satisfied

5. Upper Ruamahanga - Mt Bruce

5.1 Summary

This scheme remains in a development phase, and as such requires targeted channel alignment work, planting of the buffer zones, and edge protection works such as willow lopping and clumping.

The March 2011 flood event was a 5-year-return in the Mt Bruce and some areas experienced significant erosion. The scheme's annual maintenance funds were re-prioritised and some mitigating works were undertaken in these areas in May/June 2012.

The current annual works programme budget is \$122,700 with the flood contingency reserve closing balance being \$75,357 and the Major Flood Investment Fund closing balance being \$6,768.

5.2 Resolutions from the Annual Scheme Meetings 2012

That the Upper Ruamahanga River - Mt Bruce Management Advisory Committee confirms the:

1. Scheme Annual Report and Financial Statement be accepted

Derek Neal/Chair – Carried

2. Upper Ruamahanga River Mt Bruce Scheme has been maintained to the satisfaction of the Committee

Derek Neal/Chair – Carried

That the Waingawa River Management Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$122,700

Derek Neal/Chair – Carried

4. Scheme rates for the year 2012/13 be increased by 3%

Mike Wyeth/Chair - Carried

5.3 Performance Measures – Mount Bruce

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirement not to exceed \$27,000.	There is no significant deferred maintenance from the 2011/2012 works programme	Criteria satisfied
	Scheme not to incur or carry financial deficit without prior Council approval.	The Scheme began the financial year with a reserve balance surplus of \$71,860. End of financial year reserve balance is \$75,357.	Criteria satisfied
	Average flood damage expenditure not to exceed 10% of the total Scheme expenditure over a 5 year period.	5 yearly Criteria review	Next applicable 2014/2015
Stopbanks	Stopbank flood capacities to be reviewed and compared to design flood capacity.	5 yearly Criteria review	Next applicable 2014/2015
	Less than 20% of stopbank length has a condition rating of 4; and less than 20% of stopbank length has a condition rating of 5	Criteria satisfied	
	Less than 10% of stopbanks have a berm width of less than 20 metres.	Approximately 125m of a total 1,872m (6.7%) of stopbank within the Scheme has a berm width less than 20m	Criteria satisfied
	As-built stopbank formation levels and dimensions to be restored within 3 months of minor surface damage being reported, and within 1 month of major surface damage being reported. Grass cover to be restored within 3 months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within 1 month of being reported. Trees and scrub on		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	the stopbanks to be removed within 3 months of being reported.		
Channel Fairway	No less than 80% of the active channel length to be within the designated channel fairway.	5 yearly Criteria review	Next applicable 2014/2015
	Proportion of the defined channel fairway covered with scrub or tree re-growth not to exceed 5% of the total fairway area	5 yearly Criteria review	Next applicable 2014/2015
Buffer Zone	Less than 10% of river banks subject to active bank erosion		Criteria satisfied
	(<5%) of the designated buffer zone area has been lost to river erosion	5 yearly Criteria review	Next applicable 2014/2015
	The maintenance of a planted buffer zone area of at least 20 hectares	5 yearly Criteria review	Next applicable 2014/2015
	Heavy protection structures to be repaired within three months		Criteria satisfied
	Stock exclusion fencing to be maintained.		Criteria satisfied
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions	Consideration of habitat prior to works and alternatives methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory	The above was presented to the Mt Bruce River Scheme Advisory Committee at the annual meeting	Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	Committee meetings.	held on 4 April 2012.	
	Confirm ratepayer satisfaction at ratepayer meetings	A ratepayer meeting was not held this year. Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer satisfaction has been confirmed.	Criteria satisfied
	Annual rates, annual reports, and Scheme reviews to be approved by the Council.		Criteria satisfied
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements.	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups.	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews	A complete review of the Scheme was completed in 2002, however due to the complexity, resources and financial requirements; the 5 yearly review was not actioned. The Upper Ruamahanga Floodplain Management Plan development is beginning in the 2012/2013 year.	Criteria not satisfied
	Scheme maintenance standards to be endorsed when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices.	Review of the Asset Management business process is currently underway. Peer review requirements are part of the overall asset management review	Criteria – Not satisfied

6. Upper Ruamahanga - Te Ore Ore

6.1 Summary

The scheme continues to be in a stable condition with the ongoing works programme focussing on maintenance of existing groynes, addition of new groynes at erosion prone areas, lopping of willows, and channel alignment work.

The March 2011 flood event was between a 5- and 10-year-return in the Te Ore Ore reach of the Upper Ruamahanga River and minor flood damage resulted in some of the scheme's rock protection assets. This damage is scheduled to be repaired in the 2012/2013 maintenance operations.

Significant gravel extraction has occurred in this reach of river in the last two years to supply the material needs for the Masterton Wastewater Treatment Plant. Five-yearly bed level surveys are scheduled in 2012 to maintain awareness of aggrading or degrading trends. In general, the gravel extraction has been beneficial to the river alignment objectives by removing high beaches and reducing the need for in-stream machine works.

The current annual works programme budget is \$146,000 with the flood contingency reserve closing balance being \$171,720 and the Major Flood Investment Fund closing balance being \$6,768.

6.2 Resolutions from the Annual Scheme Meetings 2012

That the Upper Ruamahanga River Te Ore Ore Management Advisory Committee confirms that the:

1. Scheme Annual Report and Financial Statements be accepted
2. Upper Ruamahanga River Te Ore Ore Scheme has been maintained to the satisfaction of the Committee

David Holmes/Joe Percy – Carried

That the Upper Ruamahanga River Te Ore Ore Management Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$146,000
4. Scheme rates for the year 2012/13 be increased by 3%

David Holmes/Gary McPhee - Carried

6.3 Performance Measures – Te Ore Ore

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirement not to exceed \$55,000	There is no significant deferred maintenance	Criteria satisfied
	Scheme not to incur or carry financial deficit without prior Council approval.		Criteria satisfied
	Average flood damage expenditure not to exceed 10% of the total Scheme expenditure over a 5 year period	5 yearly Criteria review	Next applicable 2014/2015
Stopbanks	Stopbank flood capacities to be reviewed and compared to design flood capacity	5 yearly Criteria review	Next applicable 2014/2015
	Less than 20% of stopbank length has a condition rating of 4; and less than 20% of stopbank length has a condition rating of 5		Criteria satisfied
	Less than 10% of stopbanks have a berm width of less than 20 metres	Approximately 6.4% of stopbanks within the Scheme has a berm width less than 20m	Criteria satisfied
	As-built stopbank formation levels and dimensions to be restored within 3 months of minor surface damage being reported, and within 1 month of major surface damage being reported. Grass cover to be restored within 3 months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within 1 month of being reported. Trees and scrub on the stopbanks to be removed within 3 months of being reported.		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
Channel Fairway	No less than 80% of the active channel length to be within the designated channel fairway	5 yearly Criteria review	Next applicable 2014/2015
	Proportion of the defined channel fairway covered with scrub or tree re-growth not to exceed 5% of the total fairway area	5 yearly Criteria review	Next applicable 2014/2015
Buffer Zone	Less than 10% of river banks subject to active bank erosion		Criteria satisfied
	Target is less 5% of the designated buffer zone area has been lost to river erosion.	5 yearly review	Next applicable 2014/2015
	The maintenance of a planted buffer zone area of at least 20 hectares.	5 yearly Criteria review	Next applicable 2014/2015
	Heavy protection structures to be repaired within three months.		Criteria satisfied
	Stock exclusion fencing to be maintained.	No issues during the year	Criteria satisfied
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions.	Consideration of habitat prior to works and alternatives methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory Committee meetings	The above was presented to the Te Ore Ore River Scheme Advisory Committee at the annual meeting held on 5 April 2012	Criteria satisfied
	Confirm ratepayer satisfaction at ratepayer meetings	A ratepayer meeting was not held this year.	Criteria not satisfied

Measure	Performance Criteria	Comment	Achievement
		Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer satisfaction has been confirmed.	
	Annual rates, annual reports, and Scheme reviews to be approved by the Council		Criteria satisfied
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups.	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews.	A complete review of the Scheme was completed in 2002, however due to the complexity, resources and financial requirements; the 5 yearly review was not actioned. The Upper Ruamahanga Floodplain Management Plan development is beginning in the 2012/2013 year.	Criteria not satisfied
	Scheme maintenance standards to be endorsed when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices.	Review of the Asset Management business process is currently underway. Peer review requirements are part of the overall asset management review	Criteria not satisfied

7. Upper Ruamahanga – Gladstone

7.1 Summary

This scheme remains in the development phase, with the focus over the last few years on improving the design channel alignment. The works programme is now focussed on extensive willow planting of the stabilised buffer zones, which was not previously possible.

The March 2011 flood event was between a 5- and 10-year-return and some areas experienced significant erosion. The scheme's annual maintenance funds were re-prioritised and repair works were undertaken in May/June 2012. The remaining damage work is scheduled in 2012/2013 operations.

The current annual works programme budget is \$164,200 with the flood contingency reserve closing balance being \$67,617 and the Major Flood Investment Fund closing balance being \$6,768.

7.2 Resolutions from the Annual Scheme Meetings 2012

That the Upper Ruamahanga River Gladstone Management Advisory Committee confirms that the:

1. Scheme Annual report and Financial Statements be accepted

G McPhee/A Patrick

2. Upper Ruamahanga River Gladstone Scheme has been maintained to the satisfaction of the Committee

M Williams (As the only committee member on the river inspection)

That the Upper Ruamahanga River Gladstone Management Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$154,400

M Williams/A Patrick

4. Scheme rates for the year 2012/13 be increased by 3%

A Patrick/Williams

7.3 Performance Measures – Gladstone

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirement not to exceed \$18,000.	There is no significant deferred maintenance.	Criteria satisfied
	Scheme not to incur or carry financial deficit without prior Council approval.	The Scheme began the financial year with a reserve balance surplus of \$53,901. End of financial year reserve balance is \$67,617.	Criteria satisfied
	Average flood damage expenditure not to exceed 10% of the total Scheme expenditure over a 5 year period	5 yearly Criteria review	Next applicable 2014/2015
Stopbanks	Stopbank flood capacities to be reviewed and compared to design flood capacity	5 yearly Criteria review	Next applicable 2014/2015
	Less than 20% of stopbank length has a condition rating of 4; and less than 20% of stopbank length has a condition rating of 5.		Criteria satisfied
	Less than 10% of stopbanks have a berm width of less than 20 metres	Approximately 5.8% of stopbanks within the Scheme has a berm width less than 20m	Criteria satisfied
	As-built stopbank formation levels and dimensions to be restored within 3 months of minor surface damage being reported, and within 1 month of major surface damage being reported. Grass cover to be restored within 3 months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within 1 month of being reported. Trees and scrub on the stopbanks to be removed within 3 months of being reported.		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
Channel Fairway	No less than 80% of the active channel length to be within the designated channel fairway	5 yearly Criteria review	Next applicable 2014/2015
	Proportion of the defined channel fairway covered with scrub or tree re-growth not to exceed 5% of the total fairway area	5 yearly Criteria review	Next applicable 2014/2015
Buffer Zone	Less than 10% of river banks subject to active bank erosion.		Criteria satisfied
	Less than 5% of the designated buffer zone area has been lost to river erosion.	5 yearly Criteria review	Next applicable 2014/2015
	The maintenance of a planted buffer zone area of at least 20 hectares	5 yearly Criteria review	Next applicable 2014/2015
	Heavy protection structures to be repaired within three months.		Criteria satisfied
	Stock exclusion fencing to be maintained		Criteria satisfied
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions	Consideration of habitat prior to works and alternatives methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory Committee meetings	The above was presented to the Waipoua River Scheme Advisory Committee at the annual meeting held on 8 May 2012.	Criteria satisfied
	Confirm ratepayer satisfaction at ratepayer meetings.	A ratepayer meeting was not held this year.	Criteria not satisfied

Measure	Performance Criteria	Comment	Achievement
		Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer satisfaction has been confirmed	
	Annual rates, annual reports, and Scheme reviews to be approved by the Council.		Criteria satisfied
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements.	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews.	A complete review of the Scheme was completed in 2002, however due to the complexity, resources and financial requirements; the 5 yearly review was not actioned. The Upper Ruamahanga Floodplain Management Plan development is beginning in the 2012/2013 year.	Criteria not satisfied
	Scheme maintenance standards to be endorsed when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices	Review of the Asset Management business process is currently underway. Peer review requirements are part of the overall asset management review.	Criteria not satisfied

8. Waipoua River

8.1 Summary

The physical condition of the scheme is continuing to improve through the recommendation of the Scheme Advisory Committee to increase the use of hard edge protection measures as funding permits. Willow planting and cabling is still the predominant work, which is often followed up with the construction of boulder groynes.

There are few areas of bank erosion, which are directly affecting farmland. However, there are still areas located within the active channel which require machine in-stream work to achieve the design channel alignment.

The March 2011 flood was a 10-year-return event and damage occurred within the design alignment at a few locations within the scheme. The scheme's annual maintenance funds were able to undertake the necessary remedial works without drawing on any reserves. It is considered a success of the scheme that the condition of the river was suitable to handle a 10-year event with no need to draw on reserve funds.

The current annual works programme budget is \$106,600 with the flood contingency reserve closing balance being \$67,580 with the Major Flood Damage Reserve Fund closing balance being \$19,904.

8.2 Resolutions from the Annual Scheme Meetings 2012

The Waipoua River Advisory Committee confirms that:

1. The Scheme Annual Report and Financial Statement be accepted
2. The Waipoua River scheme has been maintained to the satisfaction of the Committee

A Miller/N Wyeth

The Waipoua River Advisory Committee recommends to the Economic Wellbeing Committee that:

3. The proposed 2012/13 works programme be approved at an estimated cost of \$106,000
4. The scheme rates for the year 2012/13 be increased by 3%

I Wyeth/N Wyeth

8.3 Performance Measures – Waipoua

The following table details the performance measures and achievements.

Measure	Performance Criteria	Comment	Achievement
Financial	Deferred asset maintenance requirement not to exceed \$20,000.		Criteria satisfied
	Scheme not to incur or carry financial deficit without prior Council approval	The Scheme began the financial year with a reserve balance surplus of \$50,638. End of financial year reserve balance is \$67,580.	Criteria satisfied
	Average flood damage expenditure not to exceed 15% of the total Scheme expenditure over a 5 year period.	5 yearly Criteria	Next applicable in 2012/13
Stopbanks	Stopbank flood capacities to be reviewed and compared to design flood capacity.	5 yearly Criteria	Next applicable in 2012/13
	Less than 5% of the rural stopbank length and less than 1%) of the urban stopbank length has a deferred maintenance requirement.		Criteria satisfied
	As-built stopbank formation levels and dimensions to be restored within 3 months of minor surface damage being reported, and within 1 month of major surface damage being reported. Grass cover to be restored within 3 months of bare patches being reported. Rabbit hole and subsidence damage to be repaired within 1 month of being reported. Trees and scrub on the stopbank to be removed within 3 months of being reported.		Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
Grade Control Weirs	The deferred maintenance requirement to be nil		Criteria satisfied
	As-built levels, dimensions, and structural materials to be restored within 1 month of significant rock displacement or other structural damage being reported.		Criteria satisfied
Channel Fairway	The channel fairway to be maintained clear of obstructive debris.		Criteria satisfied
Buffer Zone	Less than 10% of river banks subject to active bank erosion.		Criteria satisfied
	No more than 5% of the designated buffer zone area to be lost to river erosion	5 yearly Criteria	Not applicable until 2012/13
	The maintenance of a planted buffer zone area of at least 13 hectares.	5 yearly Criteria	Next applicable in 2012/13
	Stock exclusion fencing to be maintained in satisfactory condition.		Criteria satisfied
Environment	River management practices to conform to Regional Freshwater Plan, Regional Soil Plan, and Scheme Resource Consent conditions	Consideration of habitat prior to works and alternatives methods trialled to deliver a higher level of environmental enhancement, for example creating and maintaining back waters and gravel groynes, or coordination of beach ripping with identified bird nesting areas.	Criteria satisfied
Consultative	Annual reports, Scheme financial statements, and works programmes to be adopted at Advisory Committee meetings.	The above was presented to the Waipoua River Scheme Advisory Committee at the annual meeting held on 27 April 2012.	Criteria satisfied

Measure	Performance Criteria	Comment	Achievement
	Confirm ratepayer satisfaction at ratepayer meetings.	A ratepayer meeting was not held this year. Issues raised at the annual Advisory Committee Scheme meeting are considered representative of ratepayer satisfaction assessment. In general, ratepayer satisfaction has been confirmed	Criteria not satisfied
	Annual rates, annual reports, and Scheme reviews to be approved by the Council.		Criteria satisfied
	Consultation with the Department of Conservation, Wellington Fish and Game Council, and Tangata Whenua to be undertaken consistent with Scheme Resource Consent requirements	Above parties invited to Scheme meetings along with Northern Wairarapa River Agreement meeting on 27 July 2012. Overall, good relations are being maintained amongst these stakeholder groups.	Criteria satisfied
Overall	Obtain Council endorsement of Scheme management approach in internal 5 yearly reviews	Scheme will be reviewed once Waingawa review and Waiohine FMP work are completed subject to finances and staff resources.	5 yearly criteria Next applicable in 2012/13
	Endorsement of Scheme maintenance standards when the Scheme is inspected as part of the annual peer review process for Wairarapa river management practices.	Review of the Asset Management business process is currently underway. Peer review requirements are part of the overall asset management review.	Criteria not satisfied

9. Other Wairarapa Rivers

9.1 Summary

The three other schemes in the northern Wairarapa are on the Kopuaranga River, Taueru River and the Whangaehu River. These annual maintenance budgets are relatively small and involve keeping the channel clear from obstructions and as such have no major assets to report on.

Willow tree clearance works in the Kopuaranga River have been quite successful in improving flow capacities, following a targeted aerial application of herbicide in 2007/2008 and the ongoing mechanical clearing and the spraying of regrowth. There continues to be some interest expressed from landowners, upstream from Mauriceville and the existing scheme, to extend the scheme. This is an indication that they are recognising that the scheme is producing successful results.

9.2 Resolutions from the Annual Scheme Meetings 2012

(1) Taueru River Management Advisory Committee

That the Taueru River Management Advisory Committee confirms that the:

1. Scheme Annual Report and Financial Statement be accepted
2. Taueru Scheme has been maintained to the satisfaction of the committee.

H Buchanan/R Cranswick

That the Taueru River Management Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$7,370
4. Scheme rates for the year 2012/13 be increased by 3%.

H Buchanan/R Cranswick

(2) Kopuaranga River Management Advisory Committee

That the Kopuaranga River Management Advisory Committee confirms that the:

1. Scheme Annual Report and Financial Statement be accepted.

R McKenzie/N Cameron

2. Kopuaranga River scheme has been maintained to the satisfaction of the committee.

P Palmer/R McKenzie

That the Kopuaranga Advisory Committee recommends to the Economic Wellbeing Committee that the:

3. Proposed 2012/13 works programme be approved at an estimated cost of \$24,900.

G Stuart/J Percy

4. Scheme rates for the year 2012/13 be increased by 8% to \$10,112.

P Palmer/N Cameron

(3) Whangaehu River Management Advisory Committee

The Whangaehu Meeting was not scheduled for 2011/12

10. Hutt River

With only a few minor flood events over the last year and settled weather patterns, all programmed work was completed per programme and to budget (\$1.15M). Gravel extraction was down on expected volumes due to the lack of demand, but the Boulcott stopbank works took almost 50,000 cubic meters from below the Kennedy Good Bridge.

278 tonnes of rock was used along the river to top up existing rock lines and groynes and construct one new rock groyne at Manor Park.

Rejuvenation of the willow lines continued, with 740 deep trenched willow trees planted during the year. Booth willows have been cut back and in some areas replaced with matsudana hybrid willow varieties. Native planting has continued and 4,200 native trees were planted on the river berms.

The 2012/13 annual works programme is \$1,639,100. For the western area the flood contingency reserve closing balance was \$1,982,554 with the Major Flood Damage Reserve Fund closing balance at \$1,819,949. These balances are considered adequate although the MFDRF needs to continue to grow to \$6M.

11. Otaki River

There have not been any large flood events in the Otaki River for several years and improvements and regular maintenance has continued to improve assets within the scheme.

Maintenance tasks completed during 2011/12 included:

- Topping up of existing rock groynes at Tracey's (200 tonnes)
- New rock lining at Leithbridge upper (230mtrs) (3,800 tonnes)
- Rejuvenation of booth willows in the upper and middle reaches
- Planting of 1,810 willow poles and stakes
- Extraction of 50,265 cubic meters of gravel
- Planting, mulching and releasing of native plants, in liaison with the Otaki Friends groups.

At their Annual General Meeting on 31 October the Friends of the Otaki River passed the following resolution:

“That the Friends of the Otaki River confirm that the reach of the Otaki River actively managed by Greater Wellington Flood Protection Department has been maintained to the satisfaction of the Committee”.

The 2012/13 annual works programme is \$522,400.

12. Waikanae River

Maintenance tasks completed during the 2011/12 financial Year included, mulching, track maintenance, tree removal from around the friend's nursery, stopbank reinstatement and removal of two large Pine trees on the Otaihunga.

The 2012/13 annual works programme is \$94,500.

13. Wainuiomata River

The flood protection scheme on the Wainuiomata River mainly comprises of stopbanks, outlet structures and willow planting. Willow rejuvenation and re planting of dead and dying willows is ongoing and still the main focus of works on this river.

The 2012/13 annual works programme is \$33,854.

14. Porirua Stream

A bed level survey of the CBD reach to assess gravel build up was completed in 2009/10, which confirmed that no gravel extraction was required and observations during the latest audit inspection confirmed this.

The current annual works programme budget is \$104,627.

Report approved by: Report approved by: Report approved by:



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Sector Leader
Wairarapa
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Colin Munn
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