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Report to the Rural Services and Wairarapa Committee from Colin Wright, Divisional Manager, Wairarapa and Greg Schollum, Chief Financial Officer

#### **Review of Wairarapa Schemes**

#### 1. Purpose

To advise the Committee of a comprehensive review undertaken on the current status and financial health of all Wairarapa schemes and the factors which are likely to affect their future viability.

#### 2. Background

The Council currently operates 30 schemes in the Wairarapa covering various flood protection, catchment management, drainage and rural water supply activities.

The majority of these schemes began under the former Wairarapa Catchment Board using an approach that was, and still is, very common across New Zealand. There have also been some schemes commence since 1989 under the Wellington Regional Council.

The funding for these various activities is in accordance with the Council's current funding policies. The local community share of the funding (100% in the case of drainage and rural water supply schemes) is raised through a special rating district covering the total area deemed to benefit. Individual properties are rated on a classified or differential basis that recognises the degree of benefit to each property.

Most schemes operate with a scheme advisory committee comprising representatives from the special rating district. This provides a mechanism for local input and feedback and serves as a very useful communication channel between Council and the ratepayers in the particular districts. However, as the name suggests, these committees are advisory and the Council remains the decision maker and has responsibility for the schemes.

#### 3. Reasons for Review

This review was initiated because of concerns about the long-term financial viability of some schemes, particularly after the amount of flood damage in some river schemes during the 1990's.

The situation has also been compounded by the greater percentage of funding that has had to come from the special rating districts since 1992. Previously, many of the schemes were receiving funding of up to 75% from Government. Some schemes, through their advisory committees, have understandably been reluctant to increase rates to compensate for this change, particularly over a period of generally declining rural incomes.

#### 4. Current Status of Schemes

Existing schemes are as follows:

• Seven Flood Protection/River Management Schemes

These schemes operate on portions of the Ruamahanga River or tributaries of the Ruamahanga.

• Six Catchment Management Schemes

These schemes are all located in the eastern Wairarapa hill country and are based on different river catchments.

• Five Rural Drainage Schemes with Pump Stations

These schemes are all located in southern Wairarapa near Lake Wairarapa where pumping is required to achieve drainage outfalls.

• Ten Rural Drainage Schemes

These are located on various drainage systems on the Wairarapa Plain from Masterton southwards.

• Two Rural Water Supply Schemes

These schemes provide drinking and stock water to localities near Masterton.

A summary of key factors relating to each scheme is attached (Attachment 1).

The rural water supply schemes are not considered further in this report. These schemes are operated by incorporated societies comprising the property

owners who have agreed to take water from the scheme. The Council collects the funding for the scheme through a special rating district and the money received is paid across to the particular water supply society. The Council charges a 2% collection fee for this service.

It should also be noted that in this review the main emphasis was on the flood protection schemes as the magnitude of funding and the assets at risk are much greater than in the other types of schemes.

#### 5. Assessment of Current Financial Health

A good indication of the current financial health of the various schemes can be obtained by considering three factors, as follows:-

#### 5.1 Asset Management Plans

A significant development in recent years has been the production of asset management plans. These plans identify the programmes and funding required to maintain infrastructure assets so that they can continue to provide the specified service levels over the long term.

At this stage asset management plans have been prepared for the five most significant schemes, i.e. Lower Wairarapa Valley, Waiohine, Upper Ruamahanga, Waingawa and Waipoua Schemes. For the long term viability of these schemes there needs to be sufficient funding provided to allow the asset management plans to be implemented.

The Council has budgeted for the full general rate share of the funding required for the various asset management plans in its recently adopted Long Term Financial Strategy. The question therefore is whether the scheme rating levels are sufficient to provide the local community share.

At the present time asset management plans are not considered to be necessary for the catchment or gravity drainage systems. However, they are very desirable for the pump drainage systems, as the assets involved in the pumping stations will require replacement in the future.

#### 5.2 Flood Damage

In addition to undertaking the required asset maintenance work (as outlined in the asset management plans), the schemes also need to be able to cope from time to time with flood damage repair work or other extraordinary maintenance items.

As this often occurs in an irregular and unpredictable way, these items have been traditionally funded by flood contingency funds (general rate share), and also by going into deficit or borrowing if the schemes do not have reserve funds (local share). Continuing with this general approach is still considered to be appropriate. However, when considered over the long term, there needs to be sufficient funding going to the scheme reserve funds each year to meet the average annual cost of flood damage or extraordinary maintenance items. To do otherwise means a scheme is effectively going backwards.

#### **5.3** Scheme Reserve Targets

For the schemes to operate in a prudent manner, it is considered that each scheme should have sufficient balance in its reserve to enable it to cope with significant floods or extraordinary maintenance without going too deeply into debt and thus incurring high interest costs.

For example, the Waiohine Scheme has incurred a deficit over twice its annual rating income as a result of a series of floods in 1997 and 1998. The scheme is now addressing the situation and last year's rates were increased by 60%. However, it will still take several years to pay off this deficit, assuming that there are no damaging floods in the meantime.

At this stage, officers have undertaken preliminary work on the desirable target level for reserve balances of each river scheme, but further work is required to refine this.

## **6.** Factors Affecting Future Viability

The following are seen as the main factors that could influence the future viability of schemes:-

#### 6.1 Rating Classifications

The rating classification of each scheme determines the relative amount to be paid by individuals. In effect it is a lower level funding policy. Difficulties can be caused where individuals or groups of ratepayers perceive the rating classification to be unfair. As a consequence there can, for example, be resistance to increasing rates even when the overall situation justifies increased funding.

Many of the existing rating classifications go back several decades, and in some cases there can be almost a new generation of landholders who do not have any experience of the situation that existed prior to the scheme beginning. Also in some cases the circumstances may have changed significantly from those which existed many years previously.

As a consequence, it is important that the rating classification for each scheme is seen to be reasonably fair by today's generation of ratepayers. Work is currently underway on reviewing the Waiohine Scheme rating classification which was first established in the mid-1950's. It is planned to follow this with reviews of several of the other scheme classifications as outlined later in this report.

#### **6.2** Willingness to Accept Scheme Rates

Many individuals often see the scheme rates as just another tax and can lose sight of the fact that the rates are apportioned on a beneficiary pays basis. Hence a regular information and consultation process is required to keep scheme ratepayers aware of the overall situation.

#### 6.3 State of the Economy

Somewhat related to the above point is the willingness of individuals to pay scheme rates where they perceive that their individual circumstances, or that of the economic sector that they operate in, are not very buoyant. For example, in the last fifteen years many farmers have been less willing to pay scheme rates than previously was the case. Obviously this is a situation largely beyond the control of the Regional Council. Again, regular information in relation to risks and consultation will assist the position.

#### 6.4 Change in Funding Policy

Any change in the application of the Council's Funding Policy could have a significant affect on the viability of some schemes, assuming that the change required an increased share from the direct beneficiaries.

An example of this was seen in the 1990's with the reluctance of some scheme advisory committees to accept scheme rate increases to compensate for the change to a 50:50 funding from the previous higher government grant position as noted in Section 3.

#### 6.5 Scheme Deficits

A substantial deficit in a scheme account, particularly as a result of unplanned flood events, can impose significant additional debt servicing costs thus placing pressure on a scheme's viability. This reinforces the need to strive for reasonable scheme reserve targets, as outlined in section 5.3 in order to be able to smooth the impact of flood events.

#### **6.6** Extreme Climatic Events

All schemes are at some risk from extreme natural events such as a major flood or earthquake. The Council has endeavoured to address the situation by adopting risk management practices such as the Major Flood Damage Contingency Fund which is an investment fund to be used in an event which causes major damage to Council's self insured infrastructure assets. The risks posed by major natural events underscore the importance of having good scheme maintenance through asset maintenance plans and appropriate contingency funds in place.

#### 7. Findings

The following are the main findings in relation to the various schemes or groups of schemes.

#### 7.1 Flood Protection Schemes

#### 7.1.1 Lower Wairarapa Valley Development Scheme

This is one of the largest flood protection schemes in the country. The scheme had a difficult time during the 1980's and early 1990's as a result of significant flood damage on top of completing its initial construction. However, it now appears to be in a reasonably healthy position, which should improve further when significant debt repayment ceases in 2003.

The scheme is presently rating at a sufficient level to cover both the asset management plan maintenance requirements and the average annual flood damage cost as currently assessed. The scheme's current reserve balance is approximately \$1 million. While this is a significant amount, it needs to be noted that flood damage in excess of a \$1 million has occurred in some past floods (i.e. the entire scheme reserves could be utilised after two major events given the 50/50 funding policy).

The existing rating classification has been in place for nearly 40 years, although there were adjustments made in the mid 1980's to recognise areas where significant changes had been made from the original scheme design.

The existing classification is considered to be in need of a thorough review as some discrepancies have been found from time to time. The Rural Services & Wairarapa Committee has previously resolved that a revised classification should be in place before the 2003/04 financial year.

#### 7.1.2 Waiohine Scheme

As mentioned earlier, this scheme is significantly in deficit as a result of flood damage in 1997 and 1998. Scheme rates were increased last year by 60% to address the vulnerable situation that presently exists.

A comprehensive review of the scheme is well advanced and this includes a complete review of the rating classification. In addition, the annual maintenance programme has been increased recently. This will enable scheme assets to be in a more robust state and therefore better able to resist the frequent flooding that occurs on this river.

As a result of the above, it is believed the scheme rates are presently at a reasonable level to cover the asset management plan requirements and the assessed annual flood damage. It should also be possible to pay off the scheme deficit and achieve a reasonable positive scheme balance within the next ten years but only if there is no major flood damage in the meantime. Further substantial flood damage will put increasing pressure on the viability of this scheme.

#### 7.1.3 Waingawa Scheme

This scheme began in 1992/93 after many years of problems in this river. Based on the work undertaken to date, it is considered that the scheme rates are just sufficient to provide for the asset management plan requirements and the assessed annual flood damage. A reasonable scheme reserve balance should be able to be achieved in a few years time if there is no major flood damage in the meantime.

Some ratepayers regularly challenge the rating classification on the scheme. This is a recent classification and the most comprehensive of any of the schemes. Accordingly, the Rural Services and Wairarapa Committee decided last year that a review should not take place until the scheme had been operating for at least ten years.

#### 7.1.4 Waipoua Scheme

The present rating level on this scheme is sufficient to cover asset management plan requirements, but not the average annual flood damage amount. To achieve this would require a rate increase of approximately 13%. Furthermore, there is little chance of the scheme reaching a healthy positive scheme reserve balance within the next ten years unless rates are increased by approximately 50%.

However, this scheme is one where it is judged appropriate to review the rating classification before substantial rate increases are proposed.

#### 7.1.5 Upper Ruamahanga Scheme

Current rating income for this scheme is just sufficient to allow the asset management plan to be implemented. However an increase of approximately 20% would be required to cover both the asset management plan and the average annual flood damage. An increase of around 30% would be necessary to cover the asset management plan, the average annual flood damage, and to allow a reasonable scheme reserve balance to be achieved within the next ten years.

Again, this is a scheme where a revised rating classification is considered necessary before substantial rate rises are proposed. Also relevant are proposals being developed in conjunction with the Masterton District Council for inclusion of protection of their assets within the scheme together with a significant annual financial contribution.

#### 7.1.6 Lower Taueru and Lower Whangaehu Schemes

Both of these schemes have involved extensive willow clearing work in the main river channel. This work occurred over a relatively short timeframe and significant scheme deficits currently exist, as was always intended.

Current scheme rates on the Taueru will enable planned maintenance to proceed and the deficit to be paid off by 2002.

Similarly, the Whangaehu debt is expected to be paid off by approximately 2008, although a small rate rise may be required depending upon the level of maintenance that is necessary during this time.

#### 7.2 Catchment Schemes

All six catchment schemes have been operating without major difficulties for some years. The current funding levels appear to be sufficient to allow all necessary maintenance to occur and for scheme reserve balances to slowly increase.

However, the situation could change significantly if a major storm event should occur in one or more of the catchments. Therefore, it is proposed that further work be undertaken on establishing the desired targets for scheme reserve balances.

In addition there is a need for a review of some of the rating classifications. However, these reviews are seen as of a lower priority than reviewing the older river scheme classifications. Hence this work should follow the completion of the river classifications.

#### 7.3 Pump Drainage Schemes

All five pump drainage schemes have been operating satisfactorily for some years. The rating levels have generally been at a sufficient level to cover all the ongoing operating and maintenance costs.

However, as earlier mentioned, asset management plans for the pumping stations are considered to be very desirable. This is particularly so given that most pumping station equipment is 20 to 25 years old and will require replacement or refurbishment over time.

#### 7.4 Gravity Drainage Schemes

All ten gravity drainage schemes have operated without difficulty for some years. The expenditure can fluctuate from year to year depending upon the level of maintenance required. However, the scheme ratepayers accept this situation and all schemes retain a positive scheme balance to cushion the variations on rating levels.

#### 8. Where To From Here?

The following aspects are considered to require further work to enable a healthier financial situation to exist for all schemes:-

#### 8.1 Asset Management Plans

Asset management plans need to be developed for the pumped drainage schemes so that appropriate measures can be adopted to lessen the financial impact of future equipment replacements. These plans should be able to be in place before next year's rates are determined.

#### 8.2 Estimates of Future Flood Damage

The work to date has been on the basis of an initial assessment of the average annual flood damage for each scheme. This work requires further consideration to give more robust numbers.

#### 8.3 Scheme Reserve Balance Targets

Again, the work to date has been based on an initial assessment of the desirable level of scheme reserve balance over the next ten years. These targets require more detailed consideration.

#### **8.4** Rating Classifications

Several of the schemes' rating classifications require review, as outlined in this report. This work is considered to be urgent in the case of the Upper Ruamahanga and Waipoua Schemes. Therefore, officers are planning for this work to begin shortly.

Once the Waiohine, Upper Ruamahanga and Waipoua classifications are completed, it is proposed that other schemes be reviewed in the following order:-

- Lower Wairarapa Valley Development Scheme
- Mataikona-Whakataki Catchment Scheme
- Awhea-Opouawe Catchment Scheme

#### 8.5 Use of Council as a Bank

Those schemes, which are currently in deficit, are in effect using the Council as a banker. In these situations formal loans have not been drawn down, but rather the reserve balance has been allowed to become overdrawn. From a Treasury Management perspective, officers are keen to establish some policy parameters around the timeframe over which an individual scheme should plan to remain in deficit.

While existing arrangements should be allowed to continue, it is recommended that in future scheme reserve balances which become overdrawn will be expected to be fully funded by scheme ratepayers (by rates or loan) within three years of becoming overdrawn.

This does not affect the loan funding of normal capital works where we would expect to continue to fund scheme capital expenditure using internal treasury loans.

#### 9. Communications

Various matters raised in this report need to be discussed with the scheme advisory committees as appropriate. This will be an ongoing process, particularly so as some of the work outlined in section 8 progresses.

10. Conclusion

All Wairarapa schemes appear to be in a reasonably healthy position financially

except for the Waiohine, Upper Ruamahanga and Waipoua.

Measures are well underway to address relevant issues for the Waiohine Scheme and improvements in the situation over the next few years are expected. Rating classification reviews for the other two schemes are the first necessary step to

improve their situation. This will need to be followed by increases in the local

community share of the schemes' funding if an improvement in the situation is to be

achieved.

Further work, as outlined in this report, is necessary on several other aspects in

order to achieve a more robust financial position with a number of the schemes.

11. Recommendations

(1) That the report be received and the information noted.

(2) That the Committee reaffirm the need to place all schemes on a viable

financial basis.

(3) That the need for classification reviews on several schemes, as outlined

in the report, be endorsed.

(4) That the issues be discussed with the relevant scheme committees and

any other interested parties as appropriate.

Report prepared by:

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# River Schemes Status April 2000

Name: Lower Wairarapa Valley Development Scheme

#### **Location:**

LOWER WAIRARAPA. The Scheme starts from Ruamahanga/Waiohine confluence and extends to the sea at Lake Ferry. It also includes the overland flood ways, Tauherenikau River and all the western and eastern tributaries of the Ruamahanga River in this reach, floodgates and the Barrage Gates.

#### Size:

Ruamahanga: 69 km Tauherenikau: 14 km 9 km **Abbotts Creek:** Owhanga Stream: 5 km **Cross Creek:** 5 km **Burlings Stream:** 2 km Waiorongamai: 3 km Manganui: 4 km Pounui: 1 km **Battery:** 3 km Huangarua: 7 km **Dry River:** 11 km Tauanui: 10 km 12 km Turanganui:

#### **Aim of Scheme:**

To continue to provide the highest standards of flood protection to the Lower Wairarapa Valley consistent with financial, environmental and social restraints. Scheme Objectives

- 1. To operate and maintain all function works to their appropriate design standards.
- 2. To regularly evaluate the hydraulic performance of the Scheme and monitor its hydrology and catchment conditions.
- 3. Wherever necessary, to appraise and modify the operation and design components of the Scheme to enhance its performance and protection.
- 4. To identify the local, regional and national, costs and benefits of the Scheme components so that it is funded in an equitable manner.
- 5. To investigate the flood hazards of the district so that a Flood Management Plan can be prepared and any required modifications to existing works undertaken.

- 6. To maintain close liaison with Scheme ratepayers through a representative advisory committee and the provision of regular publicity.
- 7. To increase the general public awareness of the Scheme and where appropriate to develop recreational opportunities in the wider interests of the region.
- 8. To recognise the important wildlife and fisheries values of the area and to assist in the protection and enhancement of wildlife habitat.
- 9. To recognise the cultural and social values of the district and to take these into account in the planning of all operations.

Number of Ratepayers: 624 Average rates account: \$ 790.06 Note: 624 is the number of parcels of land that are rated. In some cases Minimum: 10.00 individuals and trusts own more than one parcel of land. Hence the Maximum: \$ 49,516.73 maximum rate is for a parcel of land, and some owners pay more rates Note: All figures are GST exclusive. than the maximum on an aggregated basis. **Rating Classification:** Last review: 1983 **Next review:** 2004 Is the current rating classification Yes, but some inconsistencies are likely. still valid? Next review due in 2004 **Financial Details:** Total annual expenditure \$650,000

Source of dollars:  50% of annual expenditure is contributed by WRC. The balance 50% is contributed by the ratepayers.	WRC: \$325,000  Ratepayers: \$495,177  District Councils: \$ 2,100  Shingle Royalties: \$ 4,200  Others: \$ 58,000
Damage reserves:	Min. annual contribution: \$ 66,000 (except 2000/01 - \$51,000)  Current balance: \$1,087,000
Major Flood Protection Recovery Fund:	Annual contribution: \$45,500  Current balance:  Target amount:
Typical Annual Programme Works:	<ul> <li>Willow planting &amp; lopping</li> <li>Willow clumps</li> <li>Rock rip rap &amp; other bank protection</li> <li>Maintenance of stopbanks, floodways, floodgates, grade control structures &amp; barrage gates</li> <li>Mechanical opening of sand bar to sea at Lake Ferry</li> <li>Beach contouring &amp; channel realignment</li> <li>Fairway debris &amp; vegetation clearance</li> <li>Removal of gravel &amp; delta development</li> </ul>

Total Asset Valuation:	\$42,420,200 consisting of			
	Stopbanks:		\$27	7,016,900
	Rock protection		\$ 2	2,002,000
	Rail groynes & retards		\$	24,800
	Vegetation buffer zone		\$ 2	2,491,800
	Fences		\$	416,000
	Floodway sills		\$	42,800
	Ducksbill		\$ 1	,650,000
	Culverts & floodgates		\$ 3	3,016,600
	Grade control structures		\$	415,300
	Barrage Gates		\$ :	5,344,000
Vulnerability of works to storm damage:	On % basis: High (H), Medium (M), Low (L)			
	Stopbanks:	H-15	M-35	L-50
	_	H-5	M-60	L-35
	Rail groynes & retards	H-25	M-50	L-25
			<b>M-50</b>	
	Fences	H-5	M-20	L-75
	Floodway sills	H-5	<b>M-40</b>	L-55
	Ducksbill	H-75	M-25	L-0
	Culverts & floodgates	H-10	M-25	L-65
	Grade control structure	H-30	M-35	L-35
	<b>Barrage Gates</b>	H-0	<b>M-0</b>	L-100
	Darrage Gates	П-V	IVI-U	T-100

# Waiohine-Mangatarere River Scheme Status

Name: Waiohine – Mangatarere River Management Scheme

Location: Wairarapa.

The scheme boundaries are Waiohine; From the lower gooseneck to the Ruamahanga confluence,

Mangatarere; From 800m above Brooklyn Road to the Waiohine confluence, Kaipatangata; From Dalefield Road to the Mangatarere confluence. Size:

Waiohine: 16km

**Mangatarere: 5km** 

Kaipatangata: 1km

approx.

#### Aim of Scheme:

#### **GOAL:**

To manage the Waiohine River and flood mitigation system, providing an agreed scheme standard of protection to riverside property, whilst maintaining and enhancing environmental and recreational values.

#### **MAIN OBJECTIVES:**

- Establish and maintain a defined channel fairway free of vegetation and obstruction.
- Establish and maintain a continuous buffer zone of protective vegetation along the fairway edges.
- Maintain stopbanks and floodway overflow sills to "as-built" formation levels and dimensions.
- Maintain the design flood capacity of the floodway system.
- Control gravel extraction to sustainable levels compatible with scheme objectives.
- Limit heavy protection works to sites where serious river alignment or change of course problems are developing.

#### **Number of Ratepayers:** 266 Average rates account: \$586.21 NOTE: **Minimum:** \$10.00 1) 266 is the number of parcels of RURAL land that are rated. In many **Maximum:** \$6697.90 cases individuals and trusts own more than one parcel of land. Hence the NOTE: These totals are all GST exclusive and maximum rate is for a parcel of land and summarise the rates for the Rural area only. some owners pay more rates than the maximum on an aggregated basis. 2) SWDC collects rates for the urban area and passes these onto the WRC. The actual number of ratepayers is unknown, but is believed to be about 1000. **Rating Classification:** Last review: 1957 **Next review:** Currently in progress. Is the current rating classification No. It is based on a capital works still valid? programme that did not all occur. **Financial Details: Total annual expenditure** \$225,000 (Based on the AMP) Source of dollars: **WRC:** \$112,500 Figures are based on the AMP.(The **Rural Ratepayers:** \$154,000 AMP foresees a rate reduction after loan settlement) **Urban Ratepayers:** \$64,400 **Shingle Royalties:** \$3,400 Others: Nil.

Damage reserves:	Annual contribution: \$95,000(Loan repayment)  Current balance: (\$242,000) – Deficit.
Typical Annual Programme Works:	<ul> <li>Fairway debris clearance.</li> <li>Spraying for fairway &amp; vegetation control.</li> <li>Channel alignment &amp; gravel groynes.</li> <li>Construction of heavy bank protection works such as rock groynes, rail groynes.</li> <li>Vegetative bank protection works such as willow clumps &amp; willow cabling.</li> <li>Willow lopping.</li> <li>Willow pole planting.</li> <li>Stopbank maintenance.</li> </ul>
TOTAL ASSET VALUATION:	\$1,011,300
Vulnerability of works to storm damage:	On % basis:  High: 4%. (Part of the willow planting worth approx. \$40,000).  Medium: 78%. (Stopbank, rail groynes
	Medium: 78%. (Stopbank, rail groynes & remainder of willow planting).
<b>Stopbanks</b> \$739,300	
Other structures \$196,750	Low: 18%. (Rock groynes worth
(rock, rail groynes)	approx. \$181,000).
Willows \$75,250 TOTAL: \$1,011,300	

# Upper Ruamahanga River Scheme Status

Name: Upper Ruamahanga River Management Scheme			
Location: Wairarapa; Scheme starts at Mt Bruce 4km down stream of the State Highway bridge and ends at the Waiohine confluence		Size: 58km	
Aim of Scheme: Mitigation of the threats of bank erosion, river course change and flooding.			
Number of Ratepayers: 176	Average rates a	ccount: \$391	
	Minimum:	\$11.25	
	Maximum:	\$5179	
Rating Classification:	Last review:	1982	
	Next review:	2002	
Is the current rating classification still valid?	the then two exists Ruamahanga and Schemes with displayments Another concerns	s started in 1984 combining sting Schemes: Upper ad Gladstone-Taumata afferent classification bases. In is that title land in as is unclaimed accretion	

Financial Details:  Total annual expenditure	\$178,000 (current). The level of expenditure will go up to \$202,000 from 2001/2002 in line with the Asset Management Plan.
Source of dollars:	WRC: \$89,000
	<b>Ratepayers:</b> \$68,740
	District Councils: \$4,569
	Shingle Royalties: \$9,024
	Others: \$14,500
Damage reserves:	Annual contribution: Nil
	Current balance: \$28,000
Typical Annual Programme Works:	<ul> <li>Fairway debris clearance</li> <li>Spraying of herbicide for fairway vegetation control</li> <li>Channel alignment &amp; gravel groynes</li> <li>Construction of heavy bank protection works such as rail groynes and rock groynes</li> <li>Vegetative bank protection works such as Willow clumps and Willow cabling</li> <li>Willow lopping</li> <li>Willow pole planting</li> </ul>

Total Asset Valuation	• \$706,680
Vulnerability of works to storm damage:	On % basis:
	High - 10% (Part of the willow planting worth about \$70,000)
	Medium – 60% (Stopbanks,rail groynes and part of the willow planting)
	Low - 20% (\$141,000 of rock groynes)

# Waingawa River Scheme Status

Name: Waingawa River Management Scheme			
Location: Wairarapa Scheme starts at the confluence of Atiwhakatu stream with Waingawa river in Mt Holdsworth and ends at the confluence with the Ruamahanga River south of Masterton township.		Size: 17km	
Aim of Scheme: Mitigation of the threats of bank erosi	ion, river course c	change and flooding.	
Number of Ratepayers: 52	Average rates a	ccount: \$ 533	
	Minimum:	10.08	
	Maximum:	\$2046	
Rating Classification:	Last review:	1992	
	Next review:	2002	
Is the current rating classification still valid?	was started only	still valid since the Scheme in 1992/93; however the y committee has been eview	

		1
Financial Details:		
Total annual expenditure	\$174,000 (Based on Asset Plan)	Management
Source of dollars:	WRC:	\$87,000
	Ratepayers:	\$24,662
	District Councils:	\$34,214
	Shingle Royalties:	\$9,000
	Others:	\$30,600
Damage reserves:	Annual contribution: Vario \$13,600 depending on prog of Land Improvement Agr Current balance: \$12,386	gress with signing
Typical Annual Programme Works:	<ul> <li>Fairway debris clearan</li> <li>Spraying of herbicide for vegetation control</li> <li>Channel alignment &amp; g</li> <li>Construction of medium works such as rail groy</li> <li>Vegetative bank protect as Willow clumps and V</li> <li>Willow lopping</li> <li>Willow pole planting</li> </ul>	or fairway gravel groynes n bank protection ones ction works such

Total Asset Valuation	• \$426,000
Vulnerability of works to storm	On % basis:
damage:	High - 6%
	Medium - 56%
	Low - 38%

# Waipoua River Scheme Status

Name: Waipoua River Management Scheme			
Location: Wairarapa; Scheme starts at Miki Miki road bridge and ends at the confluence with the Ruamahanga River on the edge of Masterton township.		Size: 18km	
Aim of Scheme: Mitigation of the threats of bank erosion, river course change and flooding.			
Number of Ratepayers: 42	Average rates a	ccount: \$ 393	
	Minimum:	\$11.25	
	Maximum:	\$2,006	
Rating Classification:	Last review:	1954	
	Next review:	2002	
Is the current rating classification still valid?		nould be reviewed if a new ent approach is adopted as	
Financial Details:			
Total annual expenditure	will go up to \$54	t). The level of expenditure ,000 from 2000/2001 in line Ianagement Plan.	

Source of dollars:	WRC: \$23,000	
	<b>Ratepayers:</b> \$16,207	
	District Councils: \$9,039	
	Shingle Royalties: \$400	
	Others: \$3,000	
Damage reserves:	Annual contribution: \$4,600	
	Current balance: \$Nil (due to 1998 flood damage)	
Typical Annual Programme Works:	<ul> <li>Fairway debris clearance</li> <li>Spraying of herbicide for fairway vegetation control</li> <li>Channel alignment &amp; gravel groynes</li> <li>Construction of medium bank protection works such as rail groynes</li> <li>Vegetative bank protection works such as Willow clumps and Willow cabling</li> <li>Willow lopping</li> <li>Willow pole planting</li> </ul>	
Total Asset Valuation	• \$791,000	
Vulnerability of works to storm damage:	On % basis:	
	High 15%	
	Medium 25%	
	Low 60%	

# Lower Taueru River Scheme Status

Name: Lower Taueru River Management Scheme		
Location: Wairarapa; Scheme starts at 17km above its confluence with Ruamahanga and ends at the confluence with the Ruamahanga River at Te Whiti above the Gladstone bridge on the Ruamahanga River.		Size: 17km
Aim of Scheme: Mitigation of flooding by clearance of maintenance.	`willow trees clogg	ing the river and ongoing
Number of Ratepayers: 35	Average rates a	ccount: \$ 890 \$18
	Maximum:	\$4,027
Rating Classification:	Last review: Sch	\$4,027  neme started in 1994/95  ot applicable at this stage.

Financial Details:			
Total annual expenditure	\$7,500 (expected to reduce to about \$6,000 over next few years).  The current Scheme deficit of \$44,700 will be cleared in year 2001/2002.		
Source of dollars:	WRC: \$3,750 (50% Regional Component)		
	Ratepayers:	\$28,000	
	District Councils:	\$7,000	
Damage reserves:	Annual contribution: At present any Scheme surplus goes into paying the Scheme loan. Also a damage reserve is really not applicable for this Scheme since flood damage is not an issue. Mitigation of bank erosion and course change risks are not Scheme objectives.		
Typical Annual Programme Works:	<ul> <li>Herbicide spraying of willow regrowth in previously cleared areas</li> <li>Removal of debris blockages</li> </ul>		
Total Asset Valuation  Vulnerability of works to storm damage:	There are no Schen	ne assets as such.	

# Lower Whangaehu River Scheme Status

Name: Lower Whangaehu River Management Scheme			
Location: Wairarapa; Scheme starts at the Whangaehu river bridge in Masterton-Castlepoint Road and ends at the confluence with the Ruamahanga river		Size:8.5km	
Aim of Scheme: Clearance of willow trees clogging the river and ongoing maintenance			
Number of Ratepayers:	Average rates account: \$515		
	Minimum: Maximum:	\$41 \$2,346	
Rating Classification:	Last review: Scheme started in 1995/96 financial year.		
	Next review: Not applicable at this stage.		
Is the current rating classification still valid?	Classification is fairly new, still quite valid and hence a review is not considered to be required for the next 10yrs.		

Financial Details:			
Total annual expenditure	\$7,000 (expected to reduce to about \$5,000)		
	The current Scheme deficit of \$50,528 is to be repaid in 10yrs. However with the level of annual expenditure expected to reduce over the coming years this should happen sooner.		
Source of dollars:	WRC: \$3,500		
	Ratepayers: \$10,525		
Damage reserves:	Annual contribution: At present any Scheme surplus goes into paying the Scheme loan. Also a damage reserve is really not applicable for this Scheme since flood damage is not an issue. Mitigation of bank erosion and course change risks are not Scheme objectives.		
Typical Annual Programme Works:	<ul> <li>Herbicide spraying of willow regrowth in previously cleared areas</li> <li>Removal of debris blockages</li> </ul>		
<b>Total Asset Valuation</b>	There are no Scheme assets as such.		
Vulnerability of works to storm damage:	Not applicable		

#### DRAINAGE SCHEMES STATUS REPORT - APRIL 2000

DRAINAGE SCHEME	DRAIN LENGTH(m)	NO. OF RATEPAYERS	TOTAL RATES(\$)	MAX. RATE(\$)	MIN. RATE(\$)	AVERAGE RATE (\$)	VALUE OF PUMPS(\$)	VALUE OF PUMPSHED(\$)	VALUE OF DRAINS(\$)	RESERVE BALANCE(\$)
BATTERSEA	42 200	78	0.024	877	10	126			1 110 000	
BATTERSEA	43,200	70	9,831	0//	10	120			1,118,000	
LONGBUSH	8,600	18	4,215	1,166	5	234			126,000	
MANAIA	11,600	42	5,600	949	12	133			260,000	
ONOKE	7,500	4	23,940	13,212	2,539	5,985	150,000	223,000	244,000	23,000
MOONMOOT	5,500	5	6,840	1,673	554	1,368	80,000	123,000	162,000	7,000
TE HOPAI	22,100	7	26,000	11,012	42	3,714	150,000	225,000	428,000	33,000
POUAWHA	12,800	15	26,447	7,411	103	1,763	280,000	414,000	303,000	30,000
PAPATAHI	6,600	3	8,000	3,039	1,999	2,667	80,000	148,000	166,000	34,000
AHIKOUKA	4,100	16	1,935	436	7	121			106,000	
WHAKA	10,200	17	8,271	2,692	1	487			1,310,000	
TAUMATA	4,400	11	1,748	604	10	159			93,000	
OTAHOUA	5,700		0						146,000	
TE WHITI	2,800	9	518	223	2	58			65,000	
OKAWA	2,500	10	748	190	2	75			50,000	
EAST PUKIO	7,300	9	2,999	472	99	333			280,000	

# Mataikona Whakataki Catchment Scheme Status Report

# November 1999

## **General Information**

Name: Mataikona Whakataki Catchment Scheme	Implementation Date: March 1975
Location: Whakataki to Mataikona (Coastal Catchments including Okau catchment)	Size: 25,624 ha

Aim of Scheme: To reduce the incidence of severe erosion and its downstream effects by integrated catchment management and the establishment of erosion control measures. There is a strong focus on protection to community assets.

Number of Ratepayers: 124	Average rates account: \$39.69		
	Minimum: \$10.00		
	Maximum: \$732.34		
Rating Classification: Area based.	Last review: May 1995  Next review: May 2000		
Is the current rating classification still valid?	No Need to enlist pre-1975 small lot holders (76) May need discounting for sustainable landuse (Forestry / Bush reserves )		

Vulnerability of works to storm	On % basis:
damage:	High 40%
	Medium 30%
	Low 30%

## **Financial Details:**

Total annual expenditure (1999/2000)	\$9,660		
Source of dollars:	WRC: \$4,830		
	Ratepayers: \$4,400		
	District Councils: \$691		
	Others: \$550 (interest)		
Damage reserves:	Annual contribution: \$174 (Av~ \$550)		
	Current balance: \$7,141		
Typical Annual Programme Works:	Headwaters Retirement Works.		
	River channel erosion control and maintenance.		
	Roadside stabilisation and conservation planting.		
Vulnerability of works to storm damage:	On % basis:		
	High – 20 %		
	Medium – 40 %		
	Low – 40%		

# **Whareama Catchment Scheme Status Report**

# November 1999

## **General Information**

Name: Whareama Catchment Scheme	Implementation Date: October 1957	
Location: Tinui	Size: 53,194 ha	
<ul> <li>to remove willow</li> <li>to implement Cat with Soil and Wa</li> <li>to promote wise a</li> <li>to protect communifooding</li> <li>to liaise with the</li> </ul>	rely eroding catchment areas ows from the river systems Catchment Scheme works in conjunction Vater Conservation Plans se and sustainable land use munity assets from the effects of erosion and ne district on all matters relating to the ff the Scheme via a Ratepayers Advisory	
Number of Ratepayers: 209  Average rates account: \$85.98 incl. 6  Minimum: \$11.25 incl. 6  Maximum: \$698.40 incl. 6		
Rating Classification:	Last review: January 1994 (Proportions amended) Next review: Not proposed	

Is the current rating classification still valid?	Yes. Six classes still relevant. Some redefinition of flooding frequency likely with ongoing channel improvements. Costs of reclassification not warranted for minimal changes expected.

## **Financial Details:**

Total annual expenditure (1999/2000)	Estimated at \$28,880		
Source of dollars:	WRC:	\$12,500	
	Ratepayers:	\$17,969 (Yr. to 30/6/99)	
	District Councils: nil funds specific works Others: interest \$220		
Damage reserves:	Annual contribution: nil  Current balance: \$ no reserves fund		
Typical Annual Programme Works:	20 km maintenance willow spraying (includes follow-up spraying) 500m cut and poison willows 4 ha riparian zone plantings (within qualifying new woodlot areas) Maintenance of grade control structures.		

Vulnerability of works to storm damage:	On % basis:		
	High Medium	15% 70%	
	Low	15%	

# Maungaraki Catchment Scheme Status Report November 1999

#### **General Information**

Name: Maungaraki Catchment Scheme	Implementation Date: July 1981
Location: Clifton Grove Road, Glen Isla to Ngakonui, Wainuioru River - part catchment.	Size: 6236.7 ha

Aim of Scheme: To reduce the incidence of severe erosion and its off-site effects occurring in mudstone gullies within the catchment. To destock these areas and install erosion control measures to improve and enhance soil stability.

To protect community assets such as roads and bridges from the impact of erosion and siltation.

	T	
Number of Ratepayers: 16	Average rates account: \$353.13	
	Minimum: \$80.17	
	Maximum: \$781.83	
Rating Classification: Area based	Last review: May 1996	
	Next review: May 2001	

Is the current rating classification still valid?	Yes
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## **Financial Details:**

Total annual expenditure (1999/2000)	\$11,600
Source of dollars:	WRC: \$5,800
	Ratepayers: \$5,008
	District Councils: \$1,117
	Others: \$52 (Interest)
Damage reserves:	Annual contribution: \$0
	Current balance: \$0
	Target amount: \$0
Typical Annual Programme Works:	Conservation woodlots, erosion control works and tree maintenance.
	Roadside stabilisation / planting /drainage /maintenance.
	Gully pole planting.
	River willow clearing.

# **Awhea-Opouawe**

# Catchment Scheme Status Report

## November 1999

#### **General Information**

Name: Awhea – Opouawe Scheme	Implementation Date: 1958
Location: Centred on Tuturumuri. Essentially all areas lying to the south-east of Range Road to the Pacific Ocean.	Size: 46,090 ha

#### **Aim of Scheme:**

- 1. To stop aggradation of the Awhea and Opouawe River systems by reducing the supply of detritus.
- 2. To minimise damage to private and community assets, including buildings, access tracks and fences.
- 3. To minimise land lost to erosion and inundated by deposition.

Number of Ratepayers: 78	Average rates account: \$183.86	
	Minimum: \$11.25 (GST incl)	
	Maximum: \$1744.62 (GST incl)	
Rating Classification:	Last review: April 1960  Next review: When General Rate funds and a Classifier become available	

Is the current rating classification still valid?	It is nearly 40 years old. There are a number of issues which suggest a review is due. The Advisory Committee don't wish to pay for one out of their annual budget.

## **Financial Details:**

Total annual expenditure (1999/2000)	\$ 32,000 approximately	
Source of dollars:	WRC: \$15,813	
	Ratepayers: \$12,887	
	District Councils: \$4,433	
	Others:	
Damage reserves:	Annual contribution: \$500	
	Current balance: \$9,876	
Typical Annual Programme Works:	Channel maintenance \$11000 River structures \$5000 Aerial seeding \$5000 Planting 700 poles \$4000 Seedling planting \$4000	

Vulnerability of works to storm damage:	On % basis:		
	High	20%	
	Medium	70%	
	Low	10%	

# Homewood Catchment Scheme Status Report

# November 1999

## **General Information**

Name: Homewood Catchment Scheme	Implementation Date: 1974	
Location: Homewood Road (Riversda Kaiwhata River)	ale to Size: 8,948.2 ha	
Aim of Scheme: To reduce the incidence of flooding and deposition as a consequence of accelerated catchment erosion, through integrated catchment management and the installation of erosion control measures.		
Number of Ratepayers: 19	Average rates account: \$298.31  Minimum: \$11.25  Maximum: \$819.53	
Rating Classification:	Last review: 1974 Next review: 2001 (next Scheme Review)	
Is the current rating classification still valid?	Yes	

# **Financial Details:**

Total annual expenditure (1999/2000)	\$7,400
Source of dollars:	WRC: \$3,700
	Ratepayers: \$3,700
	District Councils: Nil
	Others: Nil
Damage reserves:	Annual contribution: \$400
	Current balance: \$6,400
Typical Annual Programme Works:	500 3 metre poles Gully Control Structure maintenance
Vulnerability of works to storm damage:	On % basis:
uamage.	High - 15%
	Medium - 60%
	Low - 25%

# Kaiwhata Catchment Scheme Status Report

# November 1999

## **General Information**

Name: Kaiwhata Catchment Scheme		Implementation Date: 1983	
Location: Ngahape and Kaiwhata Roads		Size: 9,862.9 ha	
Aim of Scheme: To control severely eroding catchments and to reduce the incidence of flooding and deposition as a consequence of accelerated catchment erosion, through integrated catchment management and the installation of erosion control measures.			
Number of Ratepayers: 33	Average rates account: \$93.52  Minimum: \$11.25  Maximum: \$652.87		
Rating Classification:	Last review: 1983 Next review: 2004 (next Scheme Review)		
Is the current rating classification still valid?	Yes		

## **Financial Details:**

Total annual expenditure (1999/2000)	\$6,200

Source of dollars:	WRC: \$3,100
	Ratepayers: \$2,700
	District Councils: \$1,300
	Others: Nil
Damage reserves:	Annual contribution: \$500  Current balance: \$19,000
Typical Annual Programme Works:	200 3 metre poles River fairway maintenance Willow cabling
Vulnerability of works to storm damage:	On % basis: High - 25%
	Medium - 45%
	Low - 30%