

Report 13.811
Date 02 September 2013
File CMG/01/14/02

Committee Hutt Valley Flood Management Sub-Committee
Author Graeme Burnett, Section Leader Operations Planning

Confirmation of Hutt Valley Flood Protection Asset Condition for 2012/13

1. Purpose

- a) To advise the Sub-Committee of the overall condition ratings for Hutt Valley flood protection assets, as at 30 June 2013.
- b) To seek confirmation that the Hutt Valley flood protection assets managed by GWRC have been maintained to the satisfaction of the Sub-Committee.

2. The decision-making process and significance

Officers recognise that the matters referenced in this report may have a high degree of importance to affected or interested parties.

The matter requiring decision in this report has been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

2.1 Significance of the decision

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term 'significance' has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

3. Introduction

Each year the Flood Protection Department reports to GWRC on the overall condition of flood protection asset. Last year Councillors requested that a copy of the report be provided to the Hutt Valley Flood Management Sub-Committee for their confirmation. Ordinarily we will bring this report to this subcommittee prior to taking it to the Environmental Wellbeing Committee, but the meeting schedule did not allow this to happen this year.

A copy of Report 13.719 Confirmation of Flood Protection Asset Condition for 2012/13 is included as **Attachment 1**. This was considered by the Council's Environmental Wellbeing Committee on 10 September 2013.

The full Attachment 1 to Report 13.719 contains the high level summaries for the 15 schemes managed by GWRC, and has not been included in this report. We have, however, included the section relating specifically to the Hutt River as **Attachment 2** to this report. The high level summary of the asset condition for Hutt Valley flood protection assets includes a summary of the work completed, asset condition ratings, graphs and data.

4. Condition Ratings

The monitoring and condition rating assessment of Flood Protection assets over the past year provides reassurance to this Sub-Committee that the assets are being managed appropriately, maintained to the desired standard, will perform when needed and, where necessary, are being enhanced by a works programme.

The assessment confirmed that there are no significant or critical assets requiring immediate maintenance that are not part of an existing maintenance plan

The Sub-Committee is requested to confirm that Hutt Valley flood protection assets have been maintained to their satisfaction.

5. Recommendations

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*
3. *Confirms that the Hutt Valley flood protection assets have been maintained to the satisfaction of the Sub-Committee.*

Report prepared by:



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Report approved by:



Colin Munn
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Report approved by:



Graeme Campbell
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- Attachment 1:** Environmental Wellbeing Report 13.719 Confirmation of Flood Protection Asset Condition for 2012/13
- Attachment 2:** Hutt Valley Rivers Flood Management Report – Supplementary Information

Attachment 1 to Report 13.811

Report 13.719
Date 19 August 2013
File CMG/01/14/02

Committee Environmental Wellbeing
Author Graeme Burnett, Section Leader Operations Planning

Confirmation of Flood Protection Asset Condition for 2012/13

1. Purpose

To:

- a) Seek confirmation from the Committee that the 15 river schemes managed by Council have been maintained to the Committee's satisfaction, as at 30 June 2013.
- b) Seek endorsement of the various Wairarapa River Advisory Committee recommendations regarding budgets for river management for the 2013/14 financial year.
- c) Advise the Committee of the overall condition rating for Flood Protection assets and of the on-going development of asset management systems.

2. The decision-making process and significance

The matters requiring decision in this report have been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

2.1 Significance of the decision

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term 'significance' has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

3. River Scheme Activities

There were no significant flood events during the year and all programmed maintenance activities were completed during the year.

A summary of the river works completed in the eastern and western areas, the Wairarapa River Scheme performance statements, proposed works programmes and resolutions, including the Otaki and Waikanae Rivers Friends Groups, are detailed in **Attachment 1** of this report. Please note that a similar resolution will be sought from the Hutt Valley Flood Management Subcommittee in relation to the maintenance of the Hutt River and its tributaries that the Council manages.

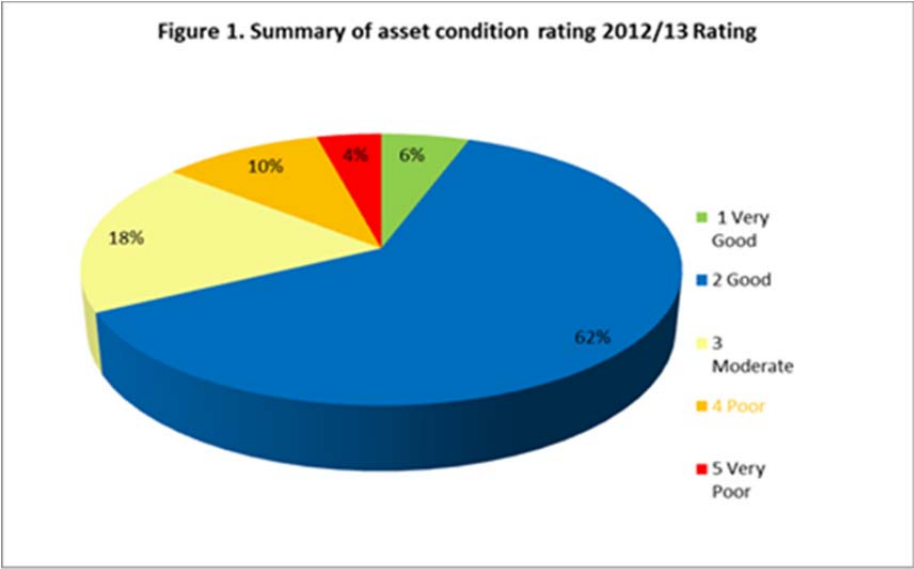
The Wairarapa River Advisory Committees and the Waikanae and Otaki Rivers Friends Groups have confirmed that the assets have been maintained to their satisfaction. The Wairarapa Scheme Committees also recommended the annual maintenance budgets, the necessary rate increases and the works programmes for 2013/14. The recommended budget for the 2013/14 financial year is approximately 3% higher than last year. Allowance has been made in the Council's budgets for an increase of this size.

Performance measures were generally met, albeit with some minor non compliances. Improvements for these areas are planned for completion over the next year or form part of longer term planning improvements. Regional funding requirements to match the local contribution increases have been allowed for in the 2013/14 Annual Plan.

4. Condition Rating

The monitoring and condition rating assessment of Flood Protection assets over the past year provides reassurance to Council that the assets are being managed appropriately, maintained to the desired standard, will perform when needed and, where necessary, are being enhanced by a works programme.

The assessment confirmed that there are no significant or critical assets requiring immediate maintenance that are not part of an existing maintenance plan. A summary breakdown of the asset's condition ratings are detailed in **Figure 1**.



The condition rating is applied to each asset and graded from 1 to 5, where: 1 is very good condition requiring no maintenance to 5 rating, denoting the asset requires upgrade, replacement or should be written off.

The annual condition rating assessment is an important asset management process and has been developed and improved over the last year. The improvements included standardising documentation, training of staff, audit and review of data. A summary of the asset type and the condition is detailed in the table below:

Asset Type	Condition Rating 2012/13					Grand Total
	1 Very Good	2 Good	3 Moderate	4 Poor	5 Very Poor	
Barrage Gate			2			2
Blockline		15	9	5		29
Bridge		2			1	3
Culvert	6	11	10		1	28
Debris Arrestor	1	10	1			12
Debris Fence	13	301	84	99	25	522
Demolition Line		1	4	1	4	10
Detention Dam			2			2
Diversion Cut		2				2
Drop Structure		1				1
Ducksbill Structure		2				2
Fascine			2			2
Fence		50				50
Fence Rail Iron Net		8	6	4	3	21
Floodgate	18	84	25	13	4	144
Floodwall	12	11				23
Floodway Sill		2				2
Groyne	20	989	123	32	4	1168
Riprap	20	203	36	24	6	289
Stopbank	89	513	107	139	16	864
Track	80	373	20			473
Training Bank	1	8	3			12
Weir		14	1	1		16
Willow	10	432	465	173	132	1212
Wingwall		4	1			5
Grand Total	270	3036	901	491	196	4894
% of Assets with that rating	5.5	62.0	18.4	10.0	4.0	

A summary of the condition ratings detailed that:

- **85.9% of assets achieved a 3 or above standard**, where no or moderate maintenance is required.
- **10.0% achieved a rating of 4**. The number of assets in this rating has increased from the previous year. This is a direct result of improvements to the assessment techniques and not a change in the physical condition or the likelihood of failure of the assets. The stop banks identified in this category are predominantly those in the northern Wairarapa Rivers and the Otaki River. For those stop banks, the condition does not meet current standards. In the Wairarapa there is vegetation growth along a number of reaches of the stop banks. These items have been identified and will be assessed as part of the current Upper Wairarapa Valley Floodplain Management Plan and for the Otaki stop banks, are included in the long term capital improvement plan.

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

- **4.0% achieved a rating of 5**. These assets are programmed for future work, or will be written off, as they are no longer required. The only critical asset in

this category is the Waikanae River, Jim Cook Park stopbank. An improvement project is scheduled to commence in 2013/14.

5. Environmental enhancement and consents

The Wairarapa River Management Agreement for the Northern Wairarapa Rivers requires the annual reporting of outcomes to the Environmental Wellbeing Committee. A summary of the report is detailed in Attachment 1, Section 4. The key matters related to improving environmental best practice and organising a research and monitoring programme, have made good progress over the last year.

The lack of floods and an emphasis on the biodiversity aspects of the river schemes has enabled in-stream channel work to be reduced in comparison to past years. All river scheme consents in the Northern Wairarapa are expected to fully comply with consent requirements.

6. Scheme Reserves

Scheme reserves have been established to enable repairs to be made following flood damage. The Scheme Reserves are utilised for floods in a 5 to 25 year return period and the Major Flood Investment Reserve caters for flood events greater than a 25 year return period. The total scheme reserves are \$11.4 million, as at 30 June 2013.

Further analysis will be undertaken during the year to consider the desirable level of reserve for each scheme. It should be noted that the regional share of the scheme reserve component is significantly less than the local share. This may necessitate an increase in general rates to match the local share should a major flood event occur or additional loan funding would be required.

A summary of the individual scheme and total reserves are detailed in the following table:

Scheme	Scheme Reserve	Major Flood Investment Reserves	Total Reserves
Lower Valley	\$1,862,786	\$986,230	\$2,849,016
Waiohine	\$589,031	\$32,527	\$621,558
Mount Bruce	\$80,034	\$7,373	\$87,407
Te Ore Ore	\$192,919	\$7,373	\$200,292
Gladstone	\$76,568	\$7,373	\$83,941
Waingawa	\$100,257	\$21,686	\$121,943
Waipoua	\$94,807	\$21,686	\$116,493
Kopuaranga	-\$44,593	\$0	-\$44,593
Upper Mangatarere	\$29,358	\$0	\$29,358
Taueru	\$10,351	\$0	\$10,351
Whangaehu	\$10,123	\$0	\$10,123
Total Eastern River Schemes	\$3,001,641	\$1,084,248	\$4,085,889
Western Rivers	\$2,407,831	\$1,084,246	\$3,492,077
Sub Total of River Schemes Reserves	\$5,409,472	\$2,168,494	\$7,577,966
GW Flood Contingency Reserve	\$1,334,636		\$1,334,636
GW Major Flood Investment		\$2,168,492	\$2,168,492
Total Reserves of River Schemes	\$6,744,108	\$4,336,986	\$11,081,094
Drainage Schemes	\$340,737		\$340,737
Total of All Schemes Reserves	\$7,084,845	\$4,336,986	\$11,421,831

7. Asset Management System

Over the last year there has been a step change in asset management across GWRC. Through the leadership of the Asset Management Development Group, key organisational outcomes such as the Asset Management Policy, asset management maturity assessment and development of improvement plans for each department, has provided strategic direction and consistency. A consultant has been engaged by GWRC for a 2 year term. Their role is to provide additional professional expertise, advice and to develop and implement asset management activities.

A plan specifically for the Flood Protection's assets is now being developed. Considerable additional funding is likely to be required and options for the delivery and implementation of this plan are currently being considered and will be incorporated into GWRC's overall Asset Management Improvement Plan.

8. Recommendations

That the Committee:

1. **Receives** the report.
2. **Notes** the content of the report.
3. **Notes** the resolutions of the various Wairarapa River Management Advisory Committees and the Friends of the Waikanae River and Otaki River.
4. **Endorses** the budget recommendations of the various Wairarapa River Management Scheme Advisory Committees for the 2013/14 financial year.
5. **Confirms** that the 15 River Management Schemes in the region have been maintained to the satisfaction of Council.
6. **Notes** that staff are considering funding options for the asset management improvement plan and when fully considered will be presented to Council for approval.

Report prepared by:



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Report approved by:



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Report approved by:



Graeme Campbell
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Attachment 1 Asset Condition Report 2012/13 - Supplementary Information

Flood Protection

Hutt Valley Flood Protection Assets Condition Report 2012/13

Supplementary Information

1. Executive Summary

Introduction

This report is an attachment to the Hutt Valley Flood Protection Asset Condition report (Council Report reference 13.811) for 2012/13. It includes a summary of the flood protection operational activities undertaken during the year and condition rating information for Hutt Valley flood protection assets managed by GWRC.

2. Works Programmes

There were no significant flood events during the last year and this allowed for maintenance work to be completed within budget and with no requirement to draw on the flood damage reserves.

Key achievements were:

- The Boulcott Stopbank Project was completed, one year ahead of programme.
- 2,536 tonnes of rock was used along the Hutt River to top up existing rock lines and groynes.
- Rejuvenation of the Hutt River willow lines has continued, with 1,002 willows planted during the year.
- Native planting has continued with 2,500 native trees planted on the Hutt River berms.

54,000 cubic meters of gravel was extracted from the Hutt River at Belmont and used for the Boulcott Stopbank Project and 1,413 cubic meters of gravel was extracted from other sites along the river.

3. Condition Ratings

The monitoring and condition rating assessment of flood protection assets over the past year provides reassurance to Council that the assets are being managed appropriately, maintained to the desired standard, will perform when needed and, where necessary, are being enhanced by a works programme.

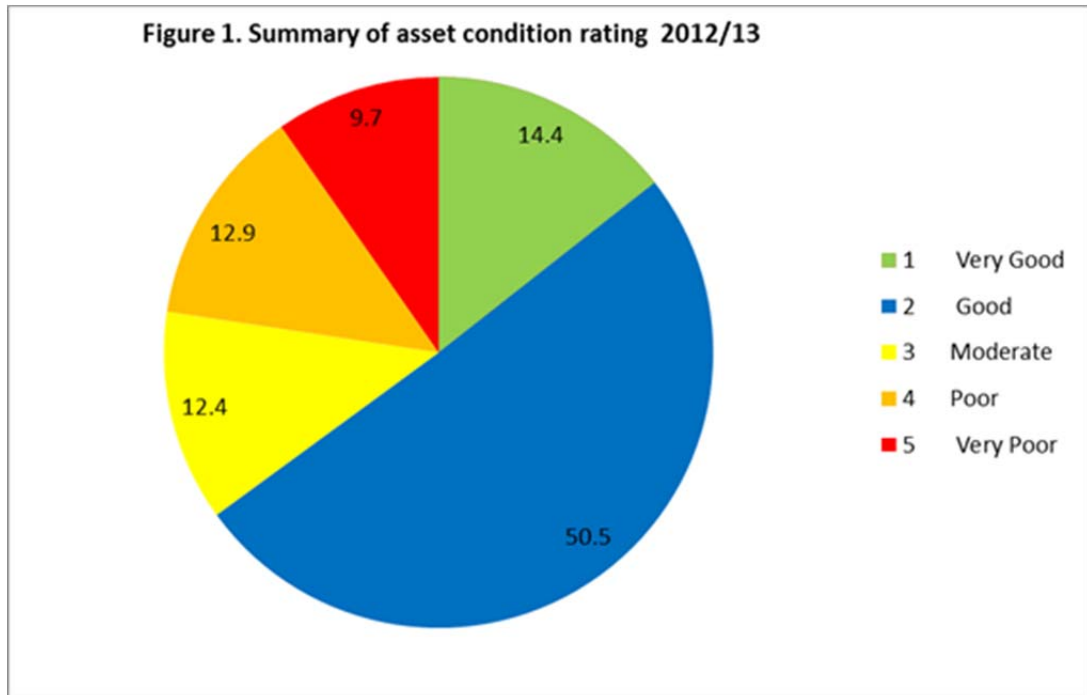
The assessment confirmed that there are no significant or critical assets requiring immediate maintenance that are not part of an existing maintenance plan.

The condition rating is applied to each asset which is graded from 1 to 5, where: 1 is very good condition requiring no maintenance to a 5 rating, denoting the asset requires upgrade, replacement or be written off.

The annual condition rating assessment is an important asset management process and has been developed and improved over the last year. The improvements included standardising documentation, training of staff, audit

and review of data. A summary of the Hutt Valley flood protection assets and their condition is detailed below:

3.1 Hutt River

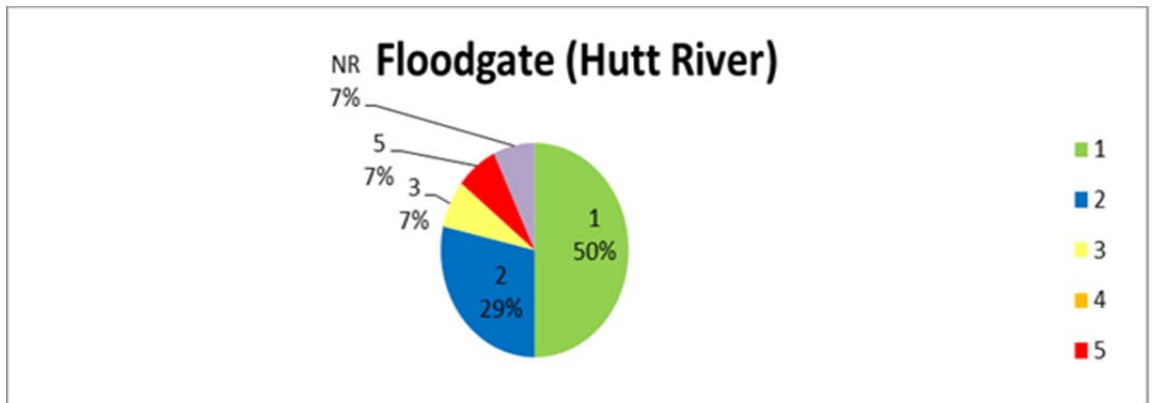


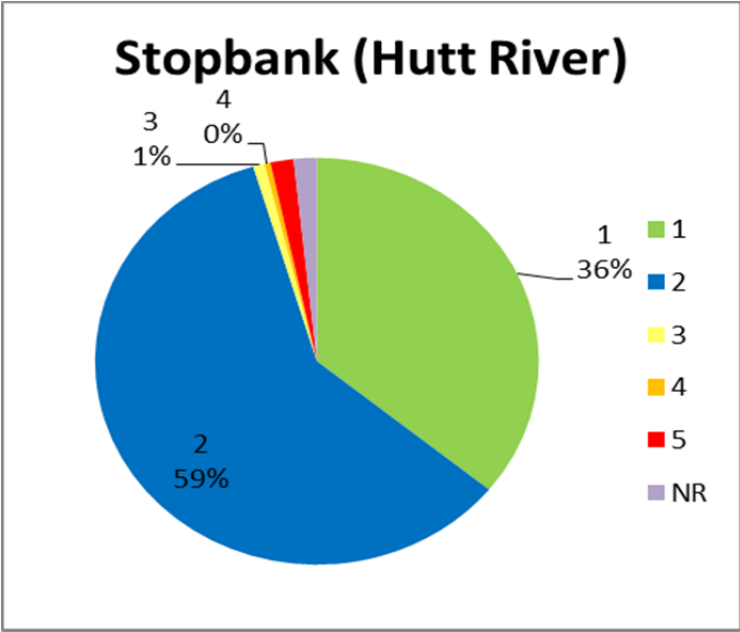
Hutt River	Condition Rating 2012/13					Total
	1 Very Good	2 Good	3 Moderate	4 Poor	5 Very Poor	
Blockline		1	7	1		9
Bridge		1			1	2
Culvert	2	4	3		1	10
Debris Arrestor	1					1
Debris Fence	1	112	31	63	23	230
Demolition Line		1	4	1		6
Fence Rail Iron Net		8	6	4	2	20
Floodgate	7	4	1		1	13
Floodwall	4	5				9
Groyne	14	67	10	4		95
Riprap	16	120	9	11	2	158
Stopbank	85	141	2	1	4	233
Track	69	220	20			309
Training Bank	1	8	3			12
Willow	9	41	86	102	107	345
Wingwall		1				1
Grand Total	209	734	182	187	141	1453

% of Assets with that rating	14.4	50.5	12.5	12.9	9.7	
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A summary of the condition ratings for Hutt River detailed that:

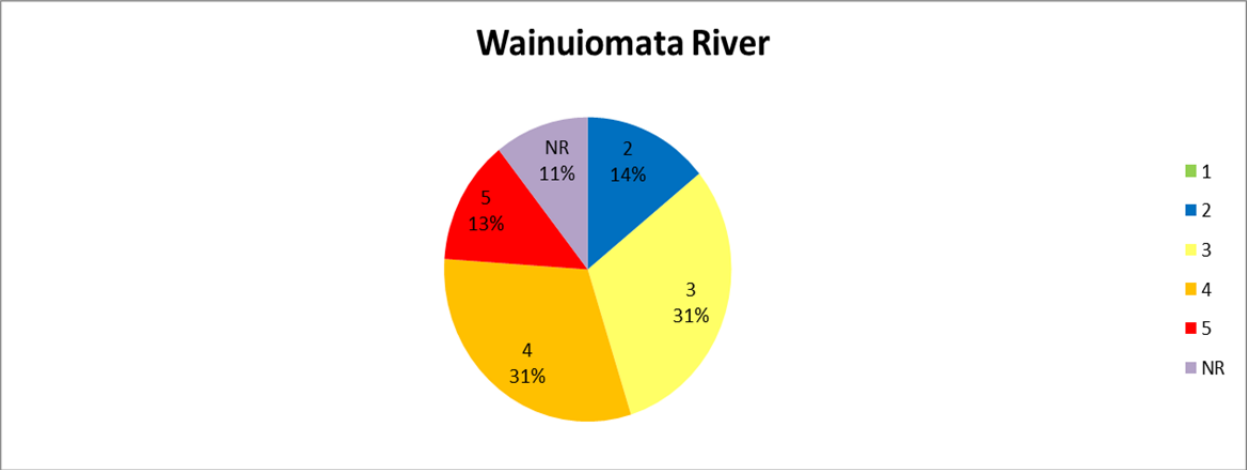
- **77.4% assets achieved a 3 or above standard**, where no or moderate maintenance is required.
- **12.9% assets achieved a rating of 4**. The number of assets in this rating has increased from the previous year. This is a direct result of improvements to the assessment techniques and not a change in the physical condition or the likelihood of failure of the assets. 88% of the assets in this category are willows and debris fences and are not critical assets
- **9.7% achieved a rating of 5**. These assets are programmed for future work, or will be written off, as they are no longer required. The riprap assets identified in this category were either overgrown or could not be sited for inspection. The stopbanks and floodgates assessed are redundant and will be removed off the asset register.

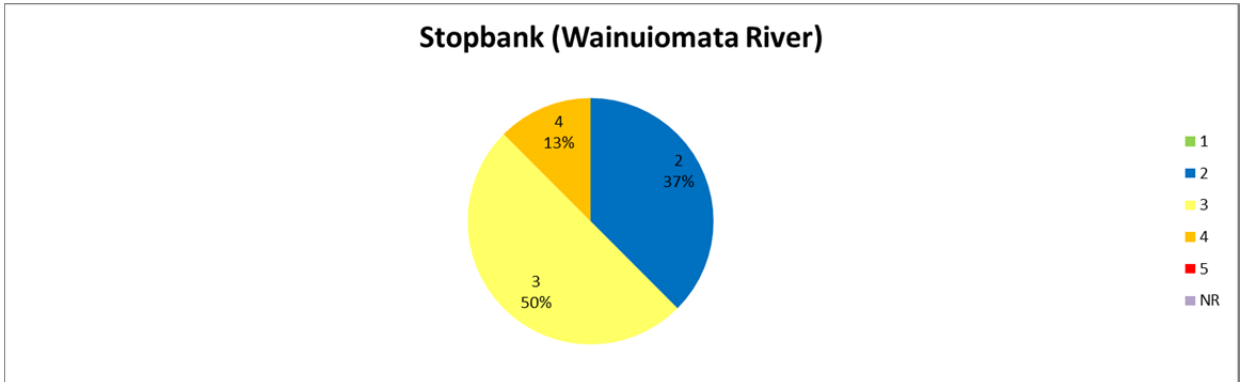




- Improvements to the one stopbank assessed as a rating 4 (Silver stream to Moonshine section) has been included in this year's works programme for improvement.
- The stopbank assets rated 5 relate to the redundant sections of the old Boulcott stopbank which has been replaced.

3.3 Wainuiomata River





- Condition rating 4 assets: Minor work required to the Burden Avenue stopbank , plus minor maintenance to rock and willow assets.
- Condition rating 5 assets: Relates to willows stands and are part of the on-going maintenance programme

3.4 Waiwhetu stream

- The recently constructed Waiwhetu Stream concrete retaining structures are in very good condition.

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