

Waihou Valley Scheme – Service Level Review

Prepared by:
Murray Mulholland

For:
Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
HAMILTON 3240

1 March 2012

Document #: 1656010

Peer reviewed by:
Mohammed Hassan Date March 2012

Approved for release by:
DS Fowlds Date March 2012

Disclaimer

This technical report has been prepared for the use of Waikato Regional Council as a reference document and as such does not constitute Council's policy.

Council requests that if excerpts or inferences are drawn from this document for further use by individuals or organisations, due care should be taken to ensure that the appropriate context has been preserved, and is accurately reflected and referenced in any subsequent spoken or written communication.

While Waikato Regional Council has exercised all reasonable skill and care in controlling the contents of this report, Council accepts no liability in contract, tort or otherwise, for any loss, damage, injury or expense (whether direct, indirect or consequential) arising out of the provision of this information or its use by you or any other party.

Acknowledgement

Russell Lamb is acknowledged for assistance with assembling survey data, and Mohammed Hassan for proof reading of the document.

Executive summary

The main floodway stopbanks of the Waihou Valley Scheme provide protection against flooding from the Waihou and Ohinemuri Rivers. The original objective of these flood protection works was to protect the floodplain from both the 1% annual exceedance probability (AEP) flood event and the 1% annual exceedance probability (AEP) tidal surge event in the Firth of Thames. In total the assets consist of 120 km of stopbanks and 1.3 km of spillway.

Levels of Service define the quality of delivery for a particular activity or service against which service performance can be measured. Consequently, associated with each service level are performance measures which enable measurement of service level achievement. The Waihou Piako Zone Management Plan (ZMP) states the service level for stopbanks is:

- *“People and property are safe from hazards associated with flooding and erosion”.*

The technical performance measures for stopbanks are normally set in terms of the Design Flood Standard which the scheme stopbanks are designed to provide protection against, and the Design Freeboard. Design Flood Standard is normally expressed as an Average Recurrence Interval (ARI) or Annual Exceedance Probability (AEP) of the design event. Design Flood levels for stopbanks are then determined based on this.

The Zone Management Plan (ZMP) performance target states that 98% of stopbanks should achieve the required measure of being above design flood level. (Note that the target level of service in the current draft LTP up for consultation has been changed to 89% of stopbanks being above design flood level).

- As assessed in this review, the current performance of the Waihou Valley Scheme main floodway stopbanks is marginal in terms of the Zone Management Plan performance target (i.e. no more than 2% of stopbanks are below design flood level). Approximately 2% by length (2.5 km) is within performance category 5 indicating that remedial work is required within the next 3 years.
- Approximately 66% (853 metres) of spillways are grade 5. It should however be noted that the performance criteria for spillways are significantly more stringent than for stopbanks

Under current insurance provisions, Council is required to maintain its stopbanks to an adequate standard, and to have appropriate asset management processes in place. It is arguable whether losses resulting from stopbanks which are below design standard would be covered. In addition there are also potential third party liability claims for consequential damage if council has been deemed negligent in its management of stopbanks.

Contents

1	Introduction	1
2	Levels of service	1
2.1	Design events	7
2.1.1	Tidal surge events	7
2.1.2	Hydrological and hydraulic design assessment	8
3	Results	11
4	Conclusions	12
Appendix 1	Stopbank service level data	18

Figures

Figure 1	Overview of scheme stopbanks	2
Figure 2	Diagrammatic representation of stopbank performance grades	4
Figure 3	Frequency analysis of Thames tide levels	7
Figure 4	Waihou River modelled flood profiles	9
Figure 5	Ohinemuri River flood profiles	9
Figure 6	Waihou River 100 year flood levels – 1965 original scheme design and 2008 revised	10
Figure 7	Ohinemuri River 100 year flood levels – 1965 original scheme design and 2008 revised	10
Figure 8	Stopbank performance breakdown	11
Figure 9	Spillway performance grade breakdown	12
Figure 10	Embankment performance grades	14
Figure 11	Waihou River left bank stopbanks – design flood levels and design crest levels	15
Figure 12	Waihou River right bank stopbanks – design flood levels and design crest levels	15
Figure 13	Ohinemuri River left bank stopbanks - design flood levels and design crest levels	16
Figure 14	Ohinemuri River right bank stopbanks - design flood levels and design crest levels	16
Figure 15	Rowes east stopbanks - design flood levels and design crest levels	17
Figure 16	Mangaiti right bank stopbanks - design flood levels and design crest levels	17

Tables

Table 1	Service levels and performance measures for stopbanks	3
Table 2	Stopbank and spillway performance grades	3
Table 3	Summary of current performance measures	5
Table 4	Estimated design high tide levels under current and future conditions	7
Table 5	Waihou Valley Scheme design discharges	8
Table 6	Stopbank performance rank based on lengths in classes 4 and 5	13

1 Introduction

This report presents a review of service levels for the Waihou Valley Scheme main floodway stopbanks, stoplogs and spillways. The original objective of these flood protection works was to protect the floodplain of the Waihou and Ohinemuri Rivers from:

- A 1% annual exceedance probability (AEP) flood event in these two rivers, and;
- A 1% AEP tidal surge event in the Firth of Thames.

The assets considered in this review consist of 118km of stopbanks, 1.7 km of spillways and 54 metres of stop-logs as shown in Figure 1.

2 Levels of service

Levels of Service define the quality of delivery for a particular activity or service against which service performance can be measured. Associated with each service level are one or more performance measures which enable measurement of service level performance. The Waihou Piako Zone Management Plan (ZMP) states the service level for stopbanks is:

- *“People and property are safe from hazards associated with flooding and erosion”.*

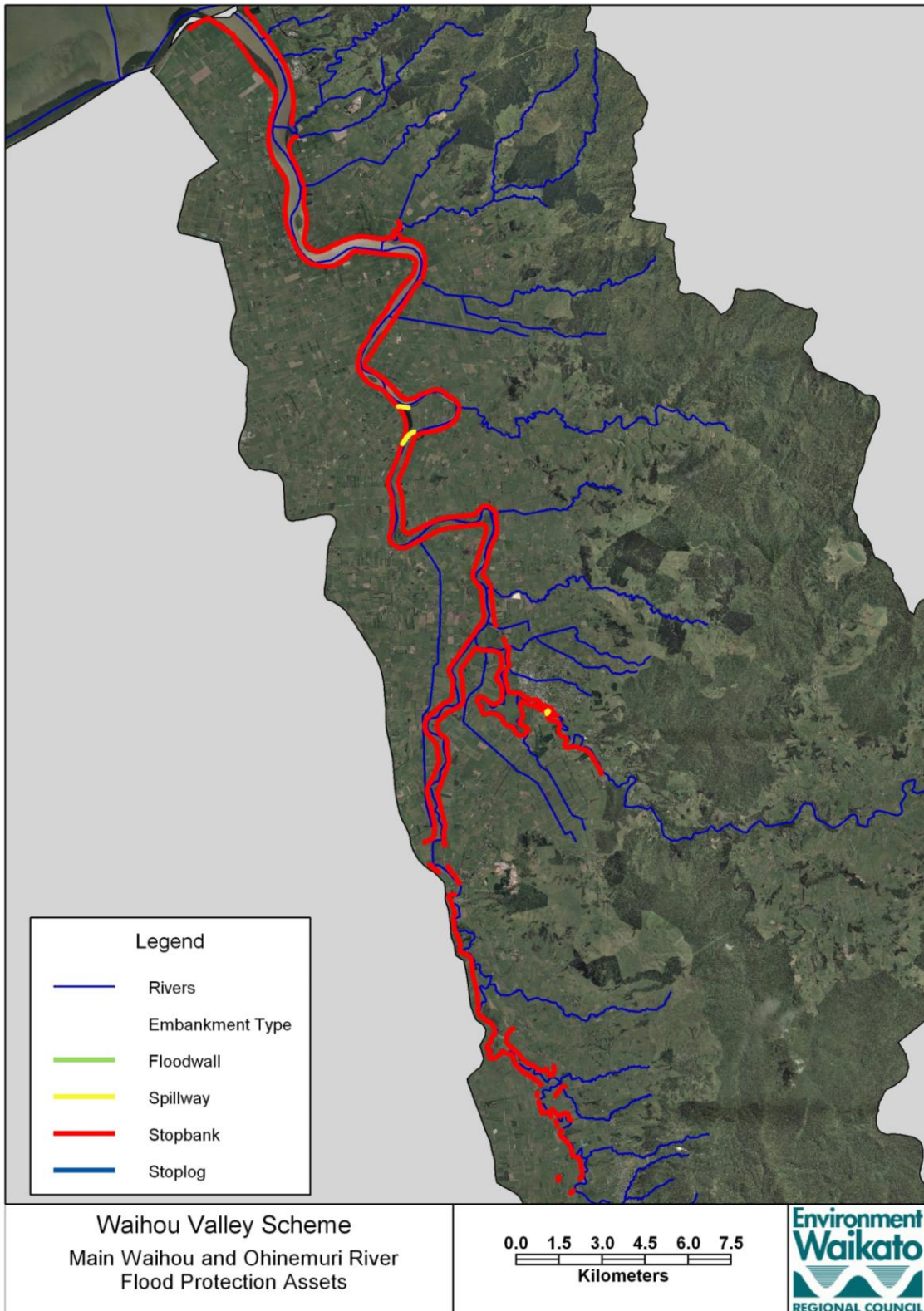
The performance measures for the scheme provide that a percentage of stopbanks may not meet the design flood standard at any point in time. The current performance standard requires that 98% of stopbanks be above design flood level at any time.

The performance measures for stopbanks are normally set in terms of the Design Flood Standard which the scheme stopbanks are designed to provide protection against and the Design Freeboard. Design Flood Standard is normally expressed as an Average Recurrence Interval (ARI) or Annual Exceedance Probability (AEP) of the design event. Design Flood levels for stopbanks are then determined based on this. Design Freeboard provides for a safety allowance (over and above the design flood level) when constructing and maintaining stopbanks. Freeboard is a safety margin to allow for variations including:

- Uncertainty in hydrological modeling
- Uncertainty in hydraulic modeling
- Wind and wave set-up on the water surface
- Super-elevation on the water surface at bends
- Settlement of stopbanks over time
- Aggradation of river bed levels over time
- Construction tolerance

The components of freeboard allowance can be divided into two categories; those due to uncertainties in the assessment of design flood levels, and those due to degradation of the stopbanks over time (i.e. settlement) Under the present measures, stopbanks are deemed to meet the scheme performance standards up until the point where all

freeboard is lost. This does not make any provision for the uncertainties involved in the estimation of design flood levels.



DISCLAIMER: While Environment Waikato has exercised all reasonable skill and care in controlling the contents of this information, Environment Waikato accepts no liability in contract, tort or otherwise howsoever, for any loss, damage, injury or expense (whether direct, indirect or consequential) arising out of the provision of this information or its use by you.

Figure 1 Overview of scheme stopbanks

The ZMP performance measures and targets are shown in **Error! Reference source not found..**

Table 1 Service levels and performance measures for stopbanks

Component	Failure mode	Event/context	Desired outcome	Performance measure	Target
Stopbanks	Overtopping	Design flood	Stopbank not overtopped	Stopbanks maintained to the stopbank design standard and above design flood heights (ZMP measure)	98% maintained to design standard and above design flood heights (ZMP Target)
		Design high tide	Stopbank not overtopped		

The zone performance target states that 98% of stopbanks should achieve the required measure of being above design flood level. The Zone Management Plan (ZMP) performance target states that 98% of stopbanks should achieve the required measure of being above design flood level (Note that the target level of service in the current draft LTP up for consultation has been changed to 89% of stopbanks being above design flood level).

The ZMP targets can therefore only be measured in the context of the zone as a whole. The Waihou-Piako Zone contains some 347 km of stopbanks, and consequently up to 6.9 km of stopbanks within the zone may be below design flood level at any time with the performance target being achieved.

To enable measurement of performance against target, stopbanks (and spillways) are graded on a one to five scale. The performance grade is based on the available freeboard relative to the design freeboard (where the available freeboard is the difference between the surveyed actual stopbank crest level and the design flood level). The five performance grades for both stopbanks and spillways are set out in **Error! Reference source not found..** The ZMP states that service levels will be achieved by maintaining stopbanks to achieve performance grade 4 or better.

Table 2 Stopbank and spillway performance grades

Performance Grade	Stopbanks	Spillways
	$P = (\text{Actual Freeboard} / \text{Design Freeboard}) \times 100\%$	$A = \text{Actual Freeboard}$
1	$P \geq 100\%$	$ A \leq 0.025 \text{ m}$
2	$100\% > P \geq 50\%$	$0.025 \text{ m} < A \leq 0.050 \text{ m}$
3	$50\% > P \geq 25\%$	$0.050 \text{ m} < A \leq 0.075 \text{ m}$
4	$25\% > P \geq 0\%$	$0.075 \text{ m} < A \leq 0.100 \text{ m}$
5	$P < 0\%$	$0.100 \text{ m} < A $

The performance grading for stopbanks is shown diagrammatically in **Error! Reference source not found..**

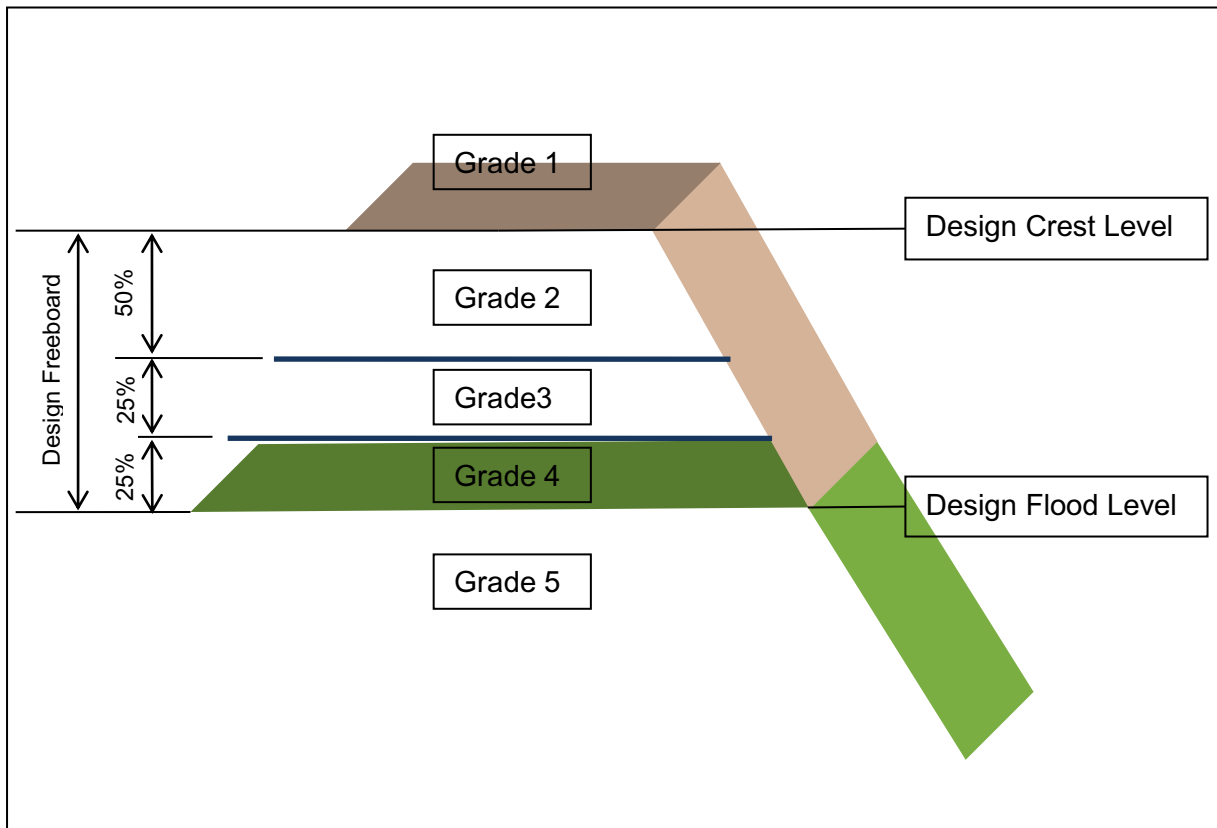


Figure 2 Diagrammatic representation of stopbank performance grades

Current performance has been assessed against the design performance standard based on most recent stopbank crest level survey data.

Adopting a conservative approach, design flood levels have been adopted as the higher of:

- the 1965 original scheme design flood profile, or
- the revised profiles modelled by Barnett and MacMurray (“Waihou Valley Scheme Service Level Assessment” April 2008).

The level of service provided by the Scheme that was initially established for the Waihou Valley Scheme was designed in 1964 (HCB 1964). The current design service levels were confirmed through an extensive consultation process undertaken in 1997 when the first asset management plan was developed. The design standards (Annual Exceedance Probability (AEP) and freeboard) adopted for the scheme is provided in

Table 3 Summary of current performance measures

Embankment	Type	Design Standard (AEP)	Design Freeboard (m)	Length (m)
02) Mouth to Cox Floodgate Left SB	Stopbank	1%	0.50	2,204
03) Cox Floodgate to Kopu Left SB	Stopbank	1%	0.50	2,010
04) Kopu to Turua Left SB	Stopbank	1%	0.50	3,669
02) Turua Town Left SB	Stopbank	1%	0.50	1,047
03) Turua to Huirau Road Left SB	Stopbank	1%	0.50	3,200
			0.90	1,496
04) Huirau Road to Gumtown Road Left SB	Stopbank	1%	0.90	2,637
05) Gumtown Road to Cut Left SB	Stopbank	1%	0.90	3,482
02) Hikutaia Cut Downstream Left Spillway	Spillway	20%	0.00	358
03) Hikutaia Cut Upstream Left Spillway	Spillway	20%	0.00	613
04) Cut to Hauraki Road Left SB	Stopbank	1%	0.90	1,955
05) Hauraki Road to Netherton Left SB	Stopbank	1%	0.90	3,269
06) Netherton to Waimarie Left SB	Stopbank	1%	0.90	3,410
07) Waimarie to Puke Left SB	Stopbank	1%	0.90	3,560
02) Confl. to Tirohia Pukahu Rd Left SB	Stopbank	1%	0.90	2,067
03) Pukahu Road to Buchanans Left SB	Stopbank	1%	0.90	2,890
04) Buchanans to Awaiti Left SB	Stopbank	1%	0.90	4,180
05) Tirohia Left SB	Stopbank	1%	0.90	460
02) Tirohia to Ahikope Left SB	Stopbank	1%	0.90	6,809
03) Ahikope to Strange Road Left SB	Stopbank	1%	0.90	2,230
04) Strange Road (Section 1) Left SB	Stopbank	5%	0.00	135
04) Strange Road (Section 2) Left SB	Stopbank	5%	0.00	459
05B) Rowes East (Section 1) Left SB	Stopbank	20%	0.00	420
05A) Rowes East (Section 2) Left SB	Stopbank	20%	0.00	219
05) Rowes East (Section 3) Left SB	Stopbank	20%	0.00	2,381
06) Stanley Road Left SB	Stopbank	5%	0.00	190
09) Suburban Outlet Right SB	Stopbank	10%	0.00	171
02) Totara Foreshore SB	Stopbank	1%	0.50	1,390
2) Waipapa to Kopu Right SB	Stopbank	1%	0.50	1,500
3) Kopu Town Right SB	Stopbank	1%	0.50	480
4) Kopu to Kirikiri Stream Right SB	Stopbank	1%	0.50	1,289
2) Warahoe Stream to Matatoki Stream Right SB	Stopbank	1%	0.50	1,758
2) Matatoki to Matatoki Road SB	Stopbank	1%	0.50	2,392

Embankment	Type	Design Standard (AEP)	Design Freeboard (m)	Length (m)
3) Matatoki Road to Puriri right SB	Stopbank	1%	0.50	3,552
2) Puriri River to Omahu Street right SB	Stopbank	1%	0.90	2,027
1) Omahu Str to Wharepoa right SB	Stopbank	1%	0.90	4,314
2) Wharepoa to Hikutaia River right SB	Stopbank	1%	0.90	3,187
02) Hikutaia to Ferry Road right SB	Stopbank	1%	0.90	3,748
03) Ferry Road to Kurere right SB	Stopbank	1%	0.90	5,215
04) Kurere to Komata right SB	Stopbank	1%	0.90	2,743
01) Komata River to confluence right SB	Stopbank	1%	0.90	1,279
06) Confluence to Mill Road right SB	Stopbank	1%	0.90	2,060
07) Mill Road to Cadman Road right SB	Stopbank	1%	0.90	3,200
08) Cadman Road to Voorends right SB	Stopbank	1%	0.90	2,650
09) Tukaki right SB	Stopbank	1%	0.90	730
07) Mangaiti right SB	Stopbank	10%	0.30	3,088
08A) Mangaiti south D/S right SB	Stopbank	43%	0.00	537
08) Mangaiti south upstream right SB	Stopbank	43%	0.00	994
02) Confluence to Mill Road left SB	Stopbank	1%	0.90	4,124
03) Mill Road to Kuaoitī left SB	Stopbank	1%	0.90	1,933
04) Kuaoitī to rail bridge left SB	Stopbank	1%	0.90	1,668
05) Rail bridge to Criterion Bridge left SB	Stopbank	1%	0.90	590
Criterion Bridge Left bank stoplog	Stoplog	1%	0.90	22
08) Criterion Bridge to gorge left SB	Stopbank	1%	0.90	3,391
07A) State highway left D/S spillway	Spillway	1%	0.00	155
07) State highway left U/S spillway	Spillway	1%	0.00	166
16) McLean right SB	Stopbank	1%	0.90	166
01) Confluence to rail line right SB	Stopbank	1%	0.90	2,530
02) Rail line to Criterion Bridge SB	Stopbank	1%	0.90	728
03) Criterion Bridge right bank stoplog	Stoplog	1%	0.90	12
05) Criterion Bridge to Hospital right SB	Stopbank	1%	0.90	180
04) Thorp Street stoplog	Stoplog	1%	0.90	20
Total				121,476

There are four sections of spillway included within the assessment. Two of these control overflows for the Hikuataia Cut on the Waihou River. The other two protect the State Highway on the left bank of the Ohinemuri River at the entrance to Paeroa.

2.1 Design events

2.1.1 Tidal surge events

The design standard for the main Waihou River stopbanks against tidal surge is the 1% Annual Exceedance Probability (AEP) or 100 year Average Recurrence Interval (ARI) event. The current design tide level for the scheme is based on the estimated level of the 1937 tidal surge, with the presumption that this event had an approximate ARI of 100 years. The current design standard makes no allowance for future climate change. For the purpose of this review, a frequency analysis of annual maximum tide levels has been undertaken using the 18 full years of available record from the Thames Tide water level recorder gauge. The resulting plot of annual maximum high tide level versus ARI is shown in **Error! Reference source not found.**

Because the length of record is relatively short (18 years) compared to the recurrence interval of the level being estimated (100 years), there is a significant element of uncertainty in the estimation. For the purpose of assessing future tide levels allowing for sea level rise due to climate change an additional 0.5 metres has been added to the current values in line with Ministry for the Environment estimates (“Preparing for Climate Change – a Guide for Local Government in New Zealand”, MFE, 2008). The resulting levels are shown in Figure 3 Frequency analysis of Thames tide levels

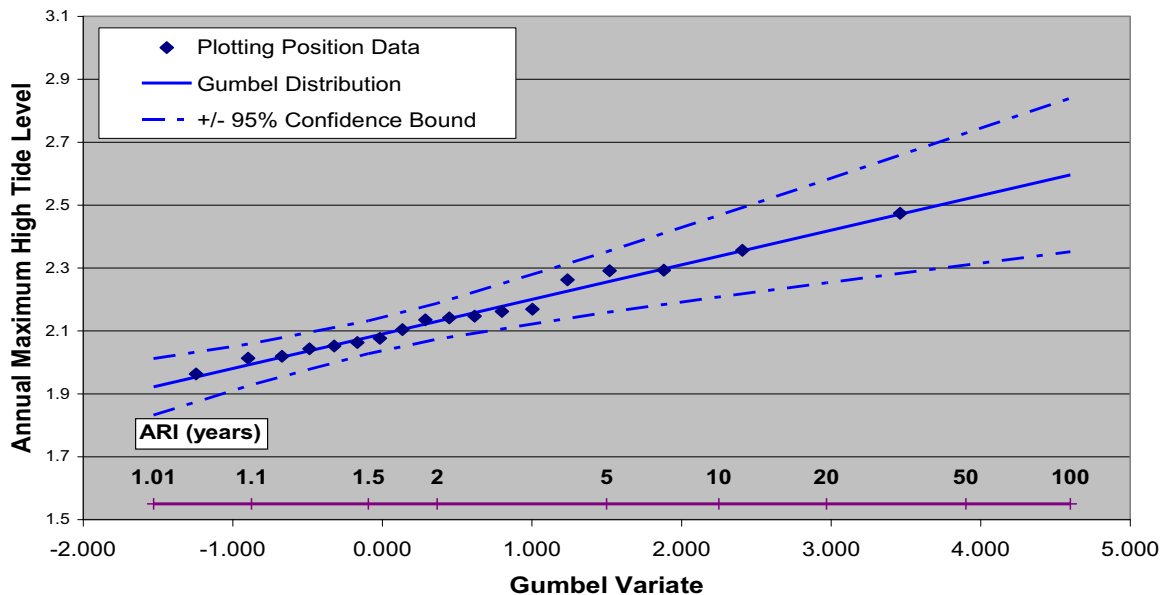


Figure 3 Frequency analysis of Thames tide levels

Table 4 Estimated design high tide levels under current and future conditions

Average recurrence interval	Annual exceedance probability	Tide level estimate		Uncertainty: 95% confidence level	95 percentile estimate	
		Current climate	Future climate (2080)		Current climate	Future climate (2080)
2.33	43%	2.15	2.65	+/-0.06	2.21	2.71
5	20%	2.26	2.76	+/-0.10	2.36	2.86
10	10%	2.34	2.84	+/-0.13	2.47	2.97
50	2%	2.52	3.02	+/-0.21	2.73	3.23
100	1%	2.60	3.10	+/-0.24	2.84	3.34

It is therefore proposed that the design 100 year tide levels of 3.00 metres (current) and 3.50 (future with climate change) be adopted. These levels allow for the fact that there is significant uncertainty associated with the frequency analysis of historic levels.

It is also proposed that that the current design freeboard allowance of 0.50 m in the tidal reach be retained:

2.1.2 Hydrological and hydraulic design assessment

Barnett and MacMurray have undertaken a review of the flood hydrology of the Waihou and Ohinemuri River catchments (“Waihou Valley Scheme Service Level Assessment” April 2008). They have considered both the current situation and expected future floods allowing for climate change up to the year 2080. Two scenarios were considered for climate change based on the high and low range of changes to extreme rainfall given by the Ministry for the Environment. Peak design discharges obtained at various locations are shown in **Error! Reference source not found...**

Table 5 Waihou Valley Scheme design discharges

River	Location	100 Year ARI event discharges (m ³ /s)				
		Scheme design	1995 Review	Barnett & MacMurray review		
				Current climate	2080 climate low	2080 climate high
Waihou	Te Aroha	1,048	790	644	670	853
	Tirohia	1,048	710	775	805	1,020
	Puke Bridge	1,642	1,500	1,246	1,311	1,787
Ohinemuri	Karangahake	1,331	1,270	1,106	1,161	1,548

Modelled water level profiles for the Waihou and Ohinemuri rivers for each climate scenario and recurrence interval are shown in **Error! Reference source not found.** and **Error! Reference source not found.**

RIVER_ID|092000

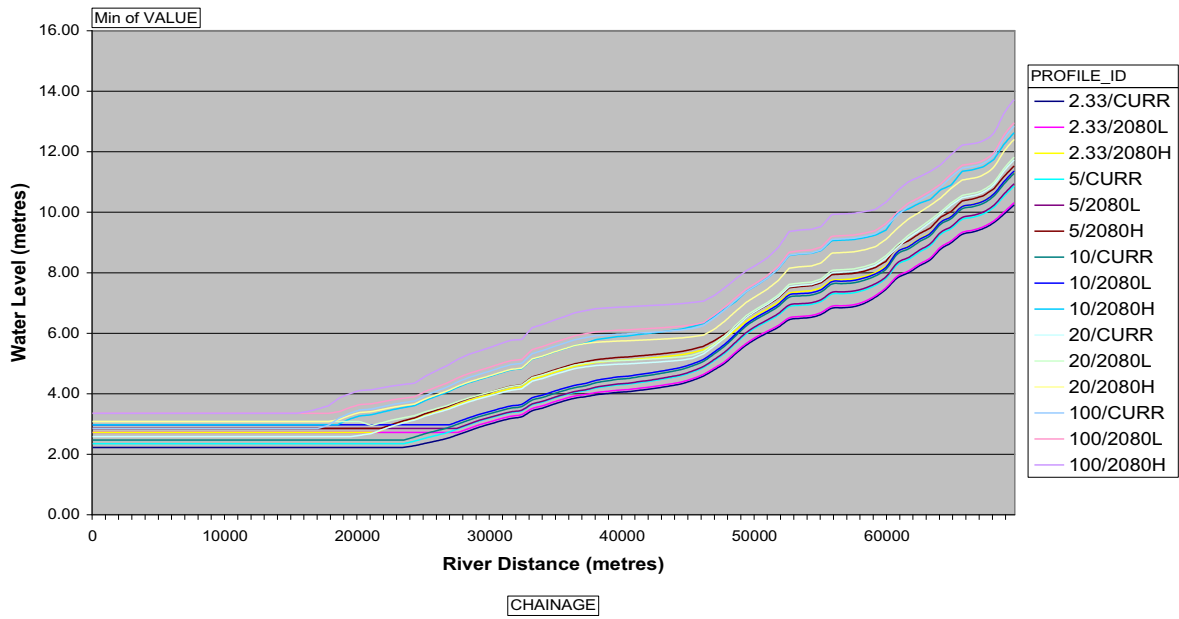


Figure 4 Waihou River modelled flood profiles

RIVER_ID|092150

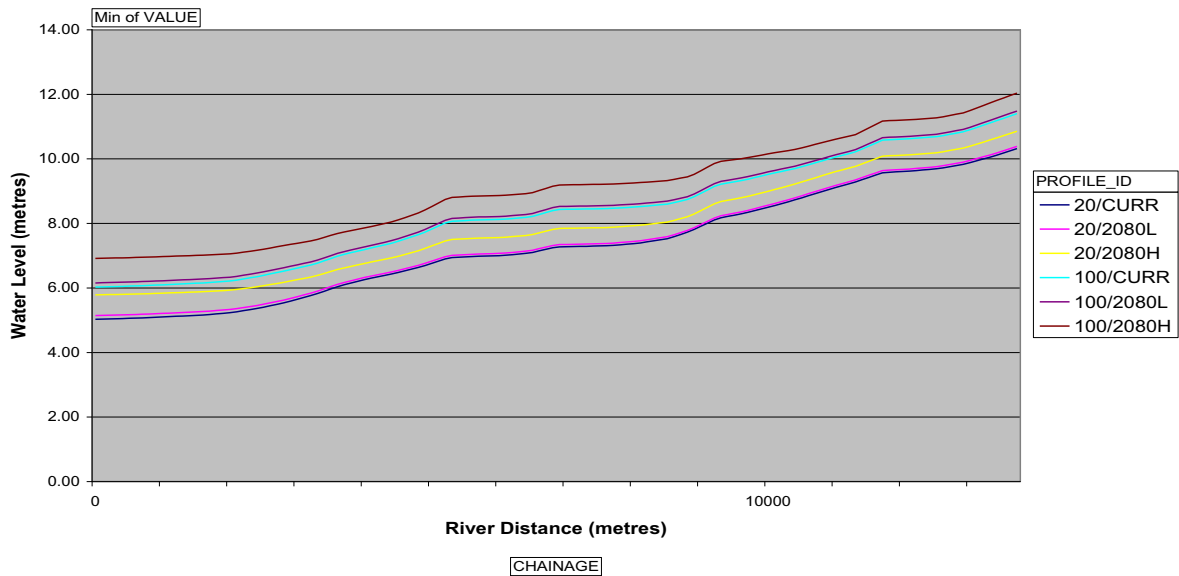


Figure 5 Ohinemuri River flood profiles

The 100 year design flood profiles resulting from the recent modelling work are shown compared to the original scheme design flood profiles in **Error! Reference source not found.** and **Error! Reference source not found.**

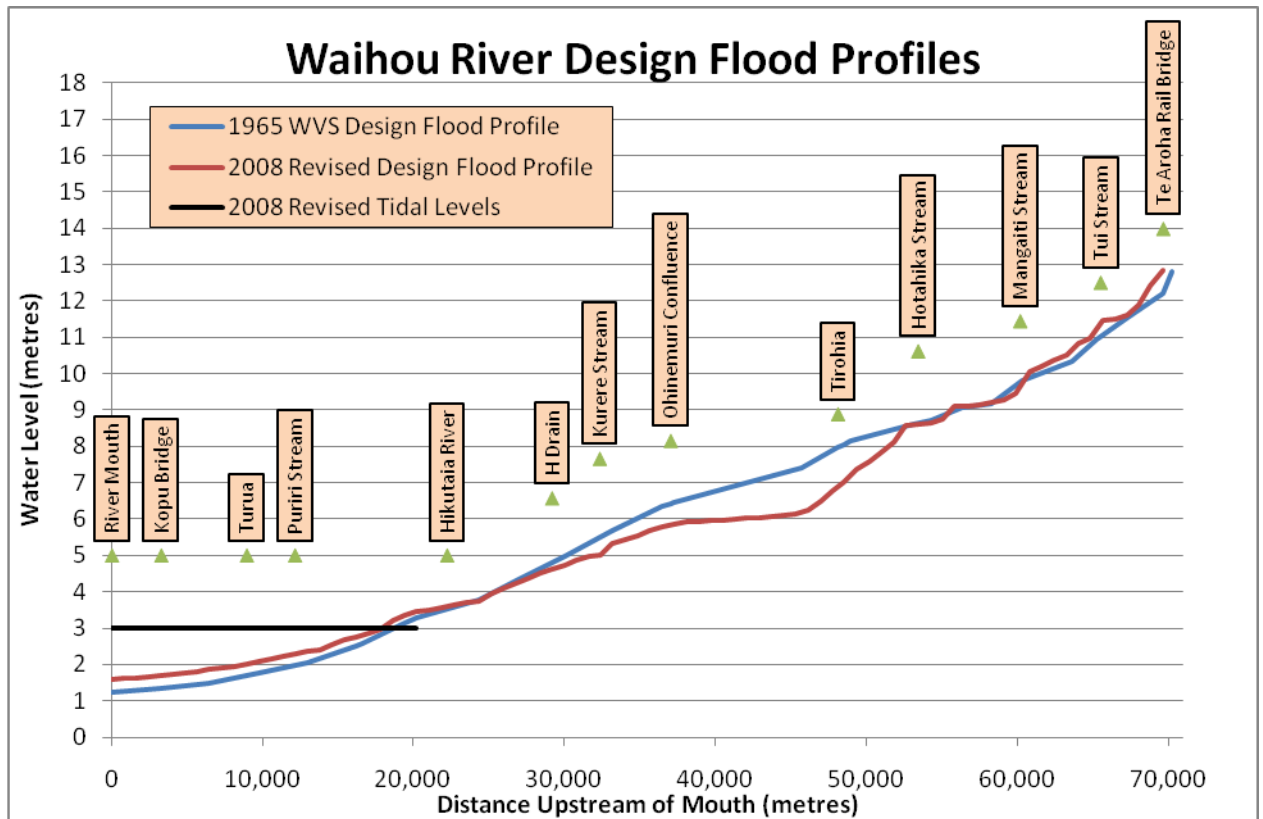


Figure 6 Waihou River 100 year flood levels – 1965 original scheme design and 2008 revised

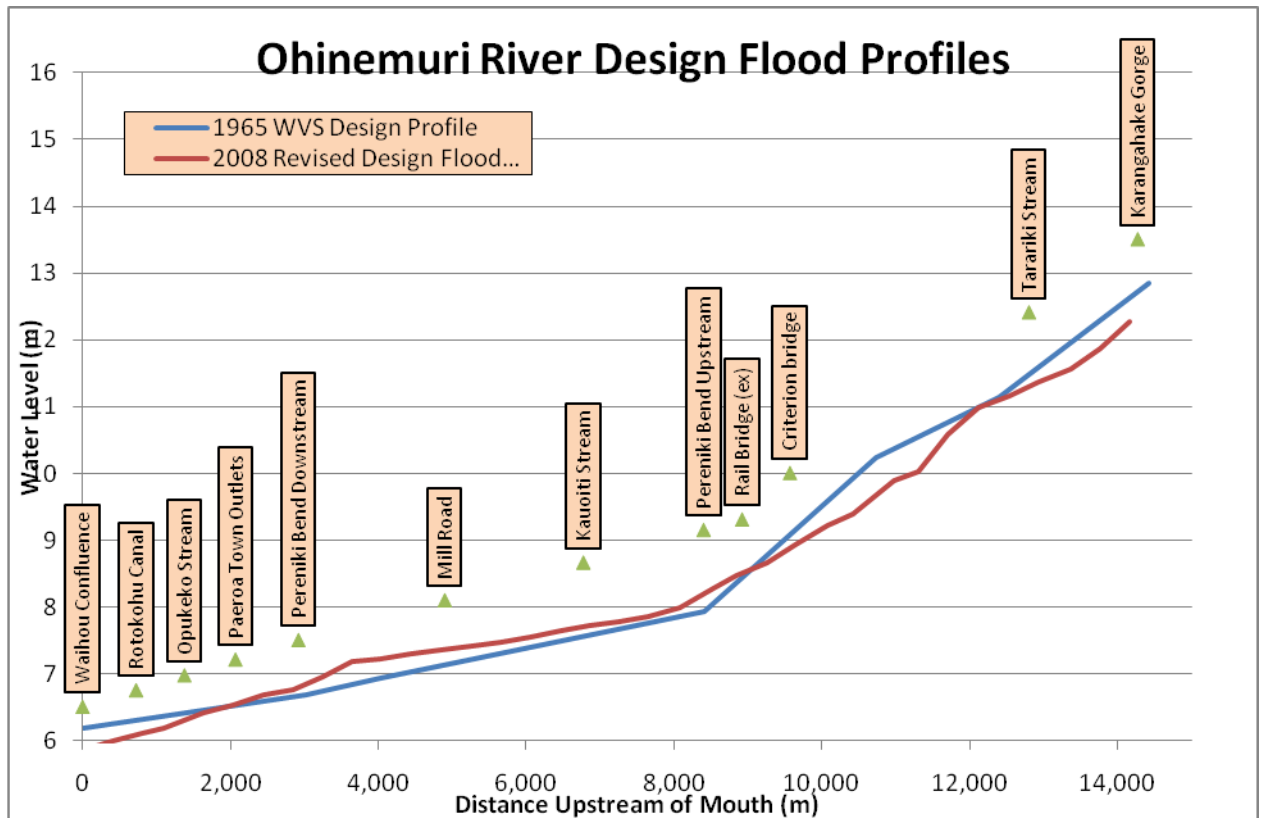


Figure 7 Ohinemuri River 100 year flood levels – 1965 original scheme design and 2008 revised

3 Results

The breakdown of percentage of stopbank and spillway length within each performance category are shown in **Error! Reference source not found.** and **Error! Reference source not found.** and the performance grades are shown mapped in **Error! Reference source not found.**.

Design flood levels, design crest levels and actual crest levels for the 121.5 km of main floodway stopbanks and 1.3 km of spillways are shown in **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.**, **Error! Reference source not found.**, and **Error! Reference source not found.**. The data in Appendix 1 sets out the design flood levels, design crest levels and actual crest levels for both Ohinemuri and Waihou rivers at 100m links along each section of the stopbank and spillway.

In summary:

- Under the current climate scenario, 98 percent of stopbanks achieve performance grade 1, 2, 3, or 4. The remaining 2% (2.5 km) are grade 5, i.e. below design flood level.
- Under current performance criteria, 66% (853m) of spillways are grade 5.
- The increase in water levels in the Waihou River due to increased flows resulting from climate change, ranges from 59 cm to 90 cm (average 78 cm).
- The increase in water levels in the Ohinemuri River due to increased flows resulting from climate change, ranges from 53 cm to 89 cm (average 71 cm).
- The increase in tidal surge water levels in the Firth of Thames due to climate change is 0.5 metres.

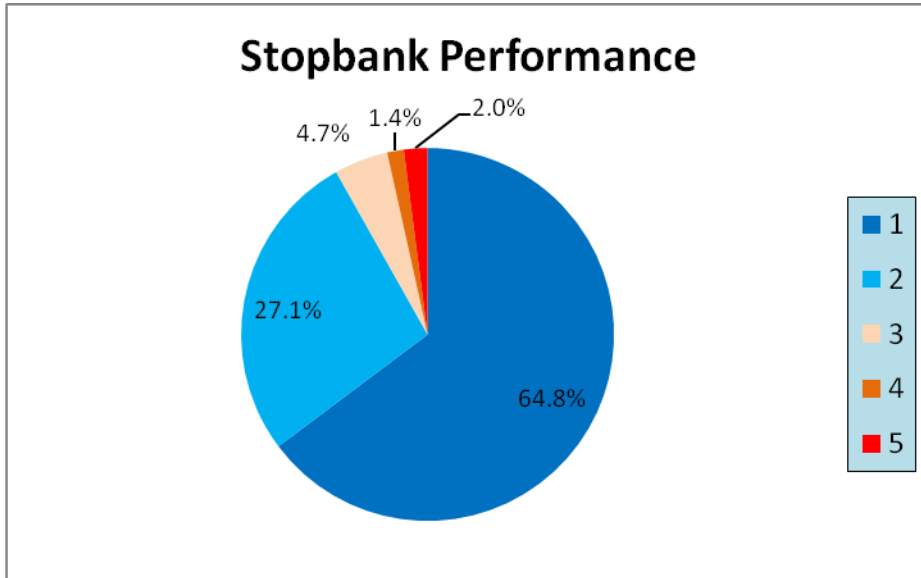


Figure 8 Stopbank performance breakdown

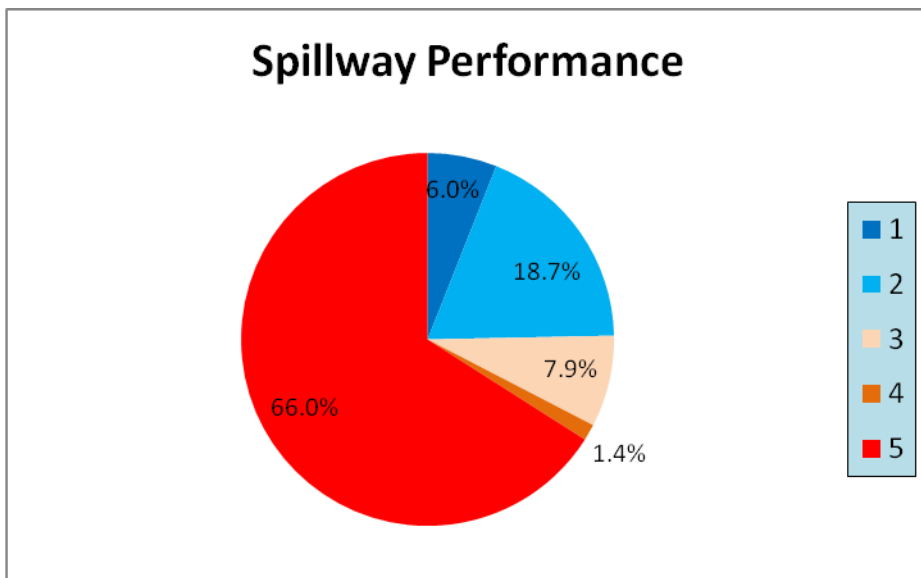


Figure 9 Spillway performance grade breakdown

4 Conclusions

Performance of the Waihou Valley Scheme main floodway stopbanks is acceptable overall under the current climate scenario. However approximately 2% of the stopbanks by length (1.9 km) are in performance category 5, indicating that the Zone Management Plan target of no more than 2% of stopbanks below design flood level is being met.

Error! Reference source not found. shows a performance ranking of stopbanks for the scheme based on the lengths within performance classes 4 and 5.

Table 6 Stopbank performance rank based on lengths in classes 4 and 5

Asset description	Length (m)		
	Grade 4	Grade 5	Total
Matatoki Road to Puriri right SB	127	641	769
Stanley Road left SB	0	748	748
Waipapa to Kopu right SB	328	268	596
Mill Road to Kuaoitī left SB	520	52	573
Strange Road (Section 2) left SB	0	340	340
Kuaoitī to rail bridge left SB	260	0	260
Confluence to rail line right SB	39	168	207
Totara foreshore SB	54	68	122
Matatoki to Matatoki Road SB	99	0	99
Mouth to Cox floodgate left SB	98	0	98
Warahoe Stream to Matatoki Stream right SB	82	0	82
Suburban outlet right SB	0	80	80
Strange Road (Section 1) left SB	0	60	60
Cox floodgate to Kopu left SB	54	0	54
Puriri River to Omahu Stream right SB	45	0	45
Pukahū Road to Buchanans left SB	26	0	26
Rowes East (Section 3) left SB	0	26	26
Kopu to Kirikiri Stream right SB	0	4	4
Total	1,732	2,455	4,186

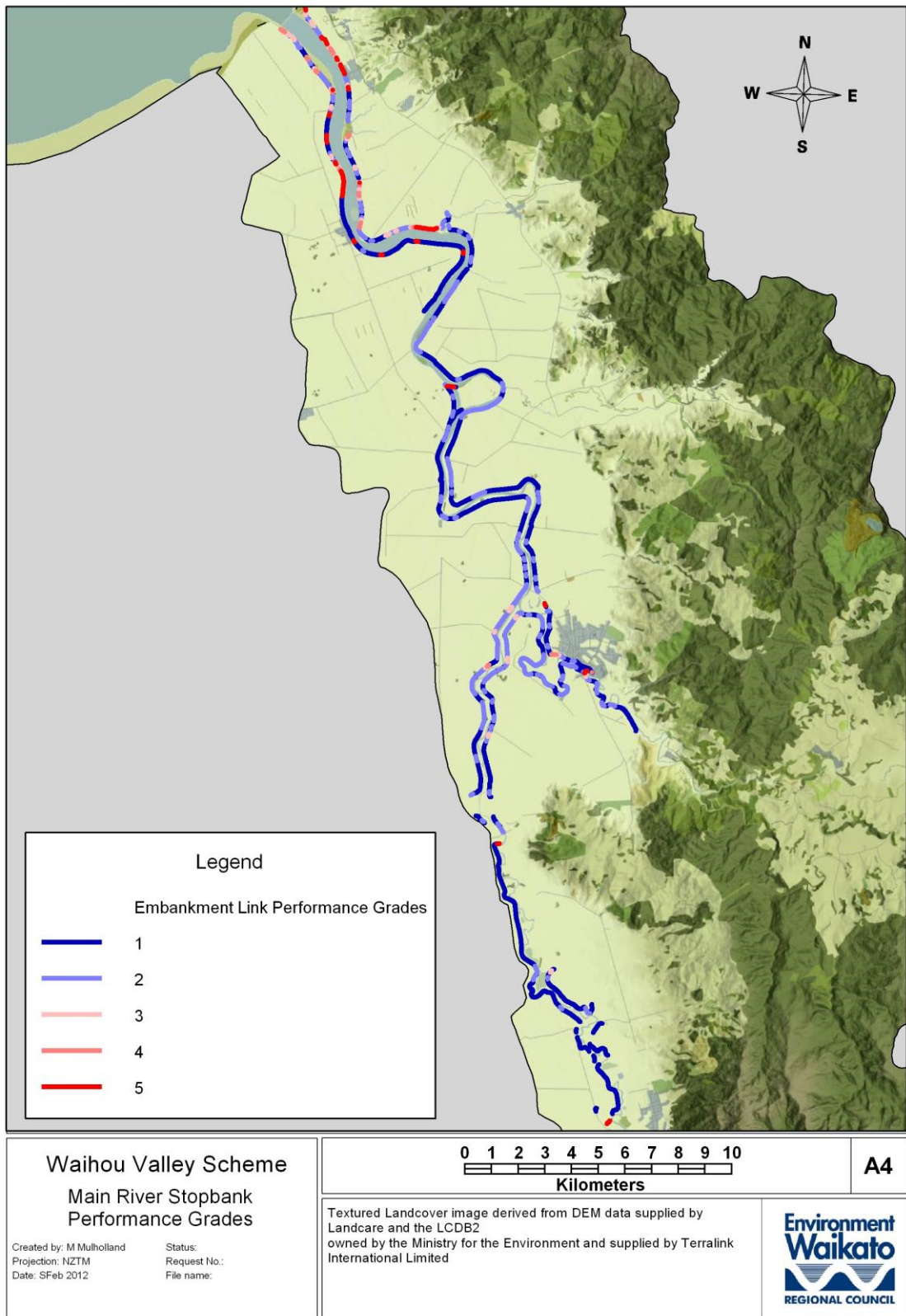


Figure 10 Embankment performance grades

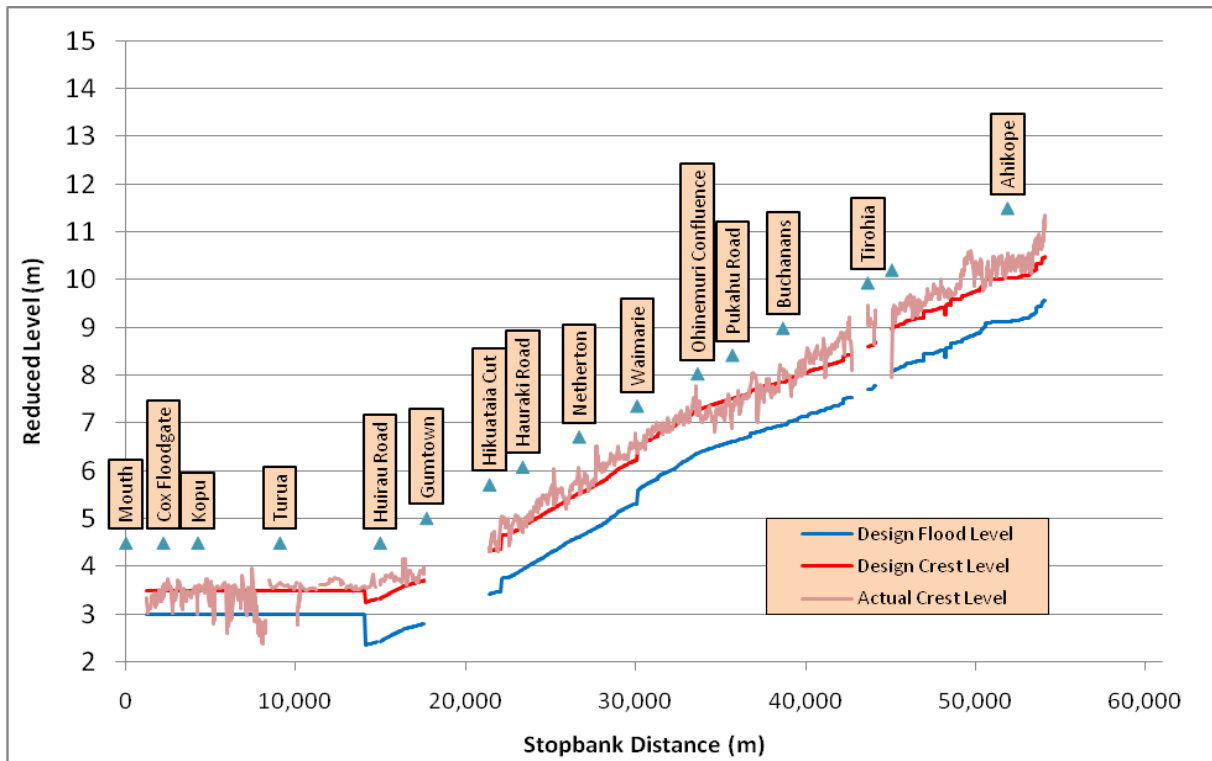


Figure 11 Waihou River left bank stopbanks – design flood levels and design crest levels

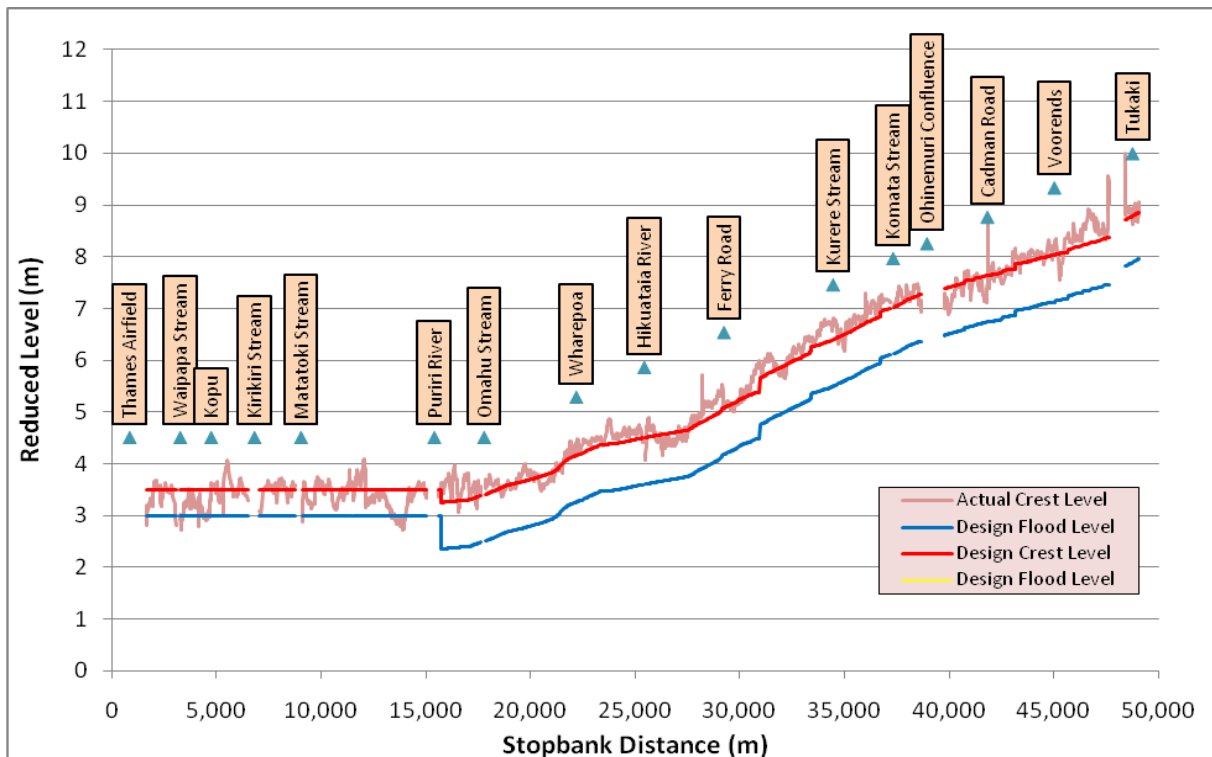


Figure 12 Waihou River right bank stopbanks – design flood levels and design crest levels

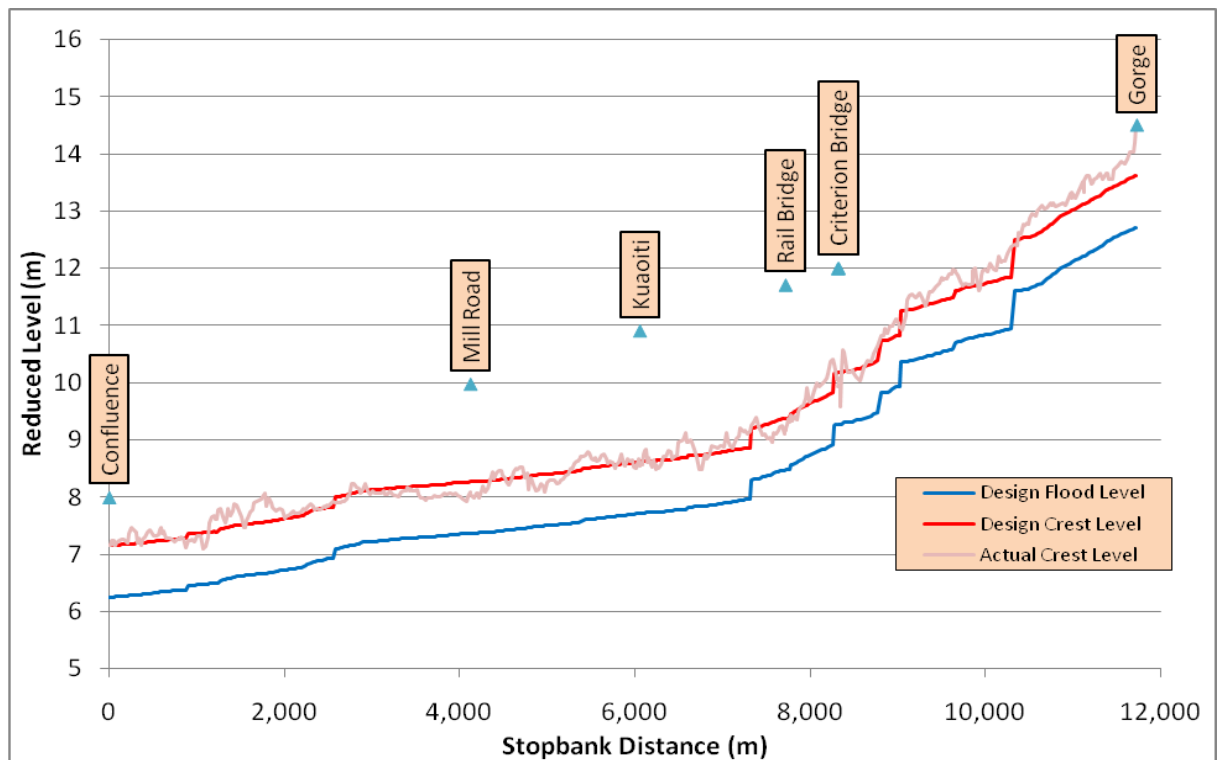


Figure 13 Ohinemuri River left bank stopbanks - design flood levels and design crest levels

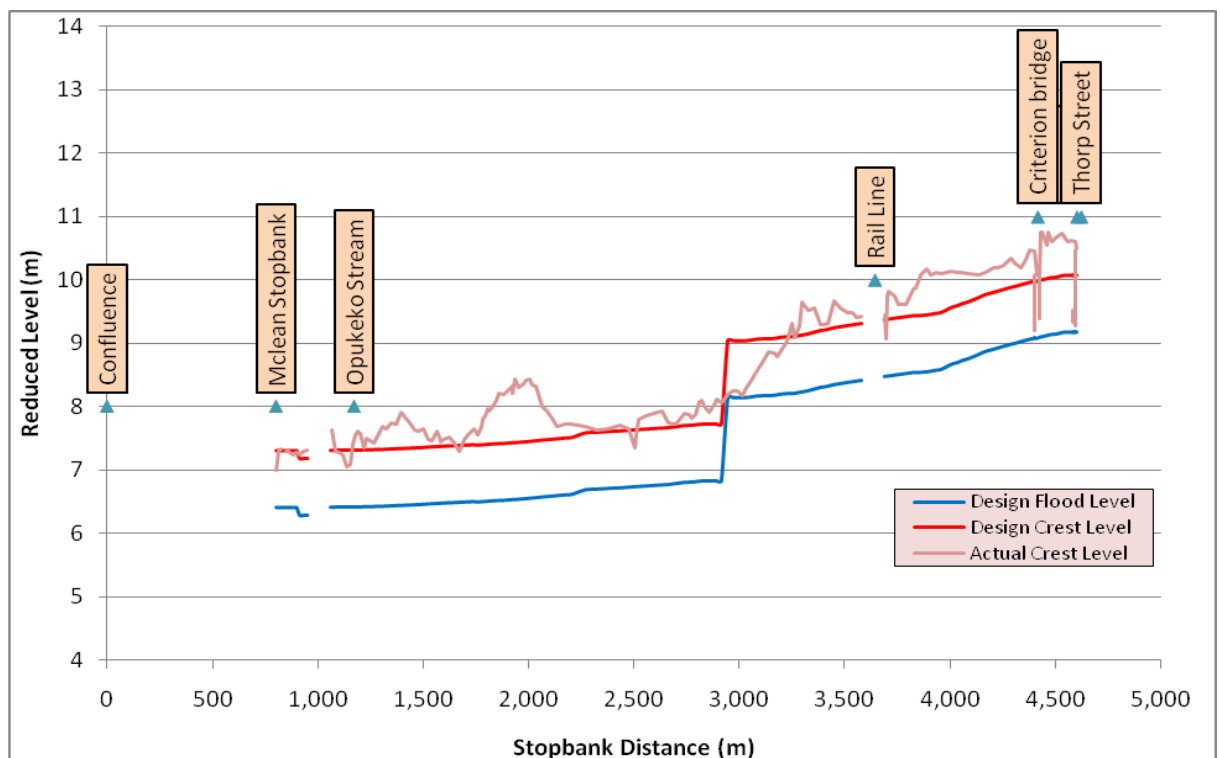


Figure 14 Ohinemuri River right bank stopbanks - design flood levels and design crest levels

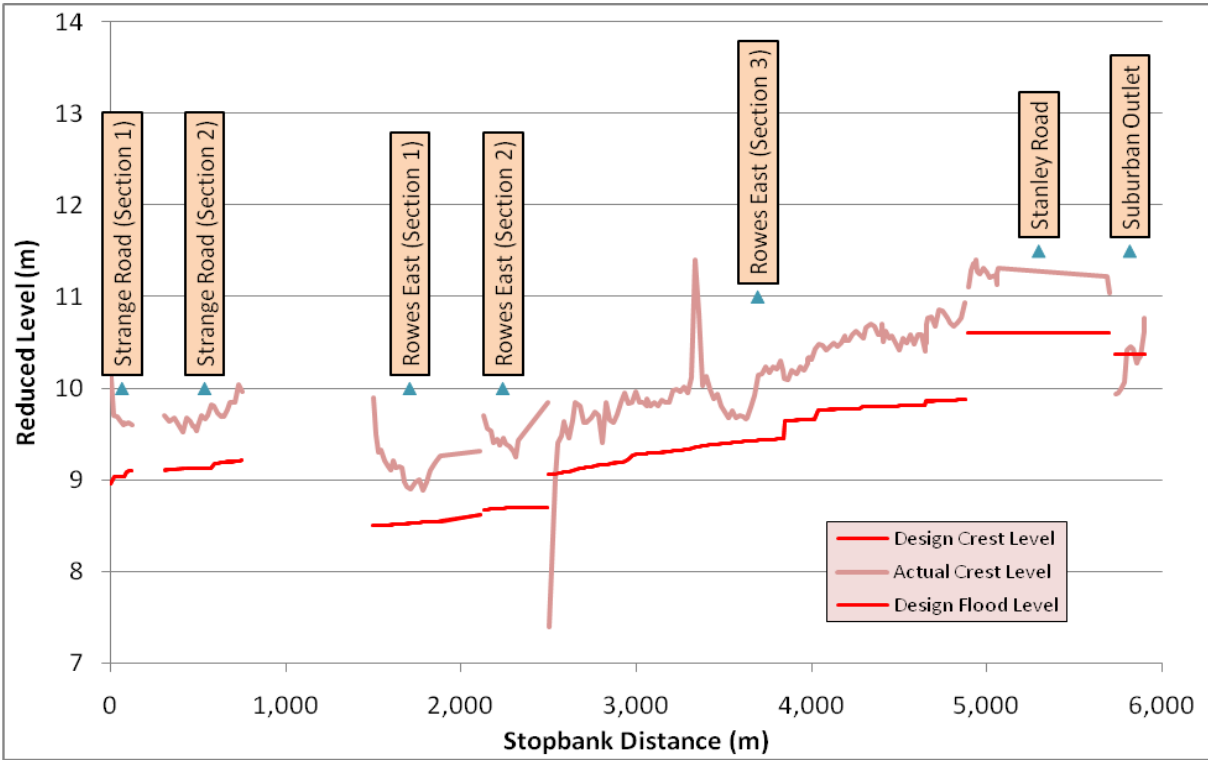


Figure 15 Rowses east stopbanks - design flood levels and design crest levels

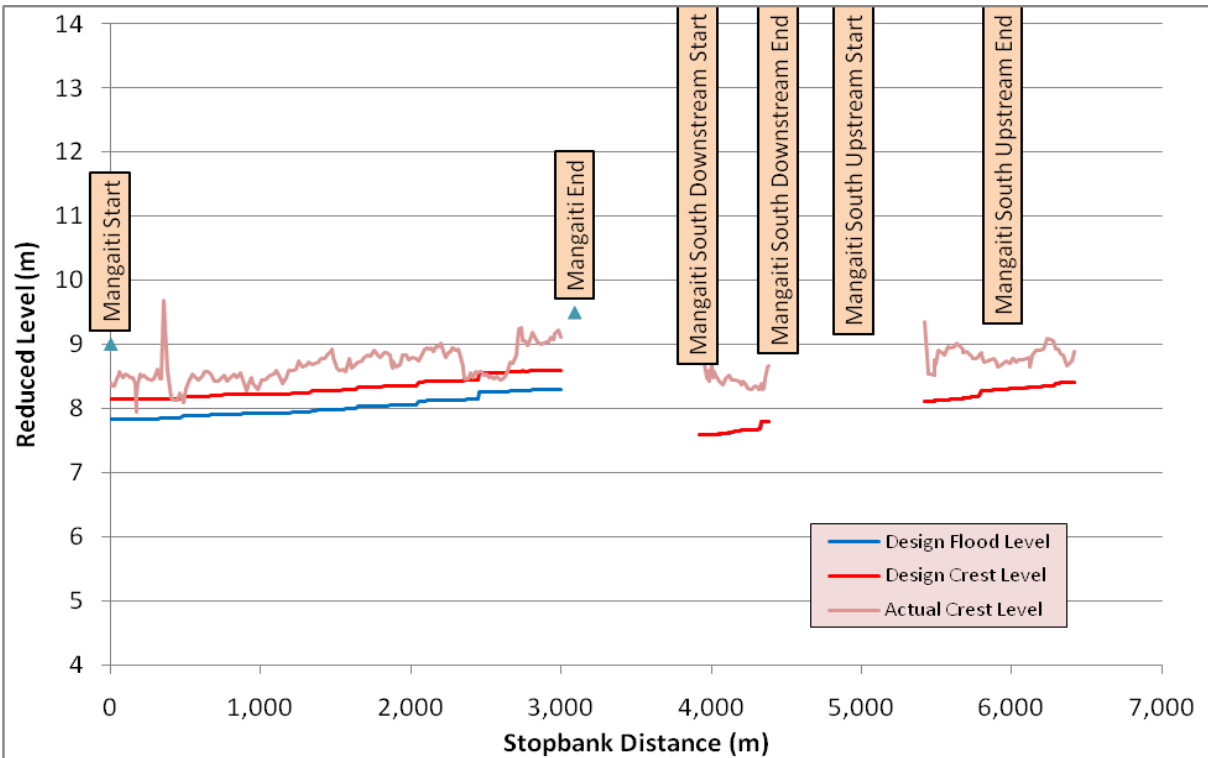


Figure 16 Mangaiti right bank stopbanks - design flood levels and design crest levels

Appendix 1 Stopbank service level data

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12413	Ohinemuri Left Bank	Confluence to Mill Road Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	922	6.26	7.16	7.15	0.90	2
12414	Ohinemuri Left Bank	Confluence to Mill Road Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	910	6.28	7.18	7.24	0.98	1
12415	Ohinemuri Left Bank	Confluence to Mill Road Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	898	6.29	7.19	7.19	0.91	1
12416	Ohinemuri Left Bank	Confluence to Mill Road Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	884	6.30	7.20	7.17	0.87	2
12417	Ohinemuri Left Bank	Confluence to Mill Road Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	864	6.32	7.22	7.31	1.00	1
12418	Ohinemuri Left Bank	Confluence to Mill Road Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	848	6.34	7.24	7.33	1.00	1
12419	Ohinemuri Left Bank	Confluence to Mill Road Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	834	6.36	7.26	7.28	0.92	1
12420	Ohinemuri Left Bank	Confluence to Mill Road Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	820	6.37	7.27	7.22	0.85	2
12421	Ohinemuri Left Bank	Confluence to Mill Road Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	743	6.46	7.36	7.13	0.75	2
12422	Ohinemuri Left Bank	Confluence to Mill Road Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	733	6.47	7.37	7.21	0.75	2
12423	Ohinemuri Left Bank	Confluence to Mill Road Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	720	6.48	7.38	7.10	0.62	2
12424	Ohinemuri Left Bank	Confluence to Mill Road Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	705	6.50	7.40	7.29	0.81	2
12425	Ohinemuri Left Bank	Confluence to Mill Road Left SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1114	6.55	7.45	7.60	1.11	1
12426	Ohinemuri Left Bank	Confluence to Mill Road Left SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1115	6.59	7.49	7.56	1.00	1
12427	Ohinemuri Left Bank	Confluence to Mill Road Left SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1115	6.62	7.52	7.76	1.14	1
12428	Ohinemuri Left Bank	Confluence to Mill Road Left SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1116	6.64	7.54	7.46	0.83	2
12429	Ohinemuri Left Bank	Confluence to Mill Road Left SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1116	6.65	7.55	7.75	1.11	1
12430	Ohinemuri Left Bank	Confluence to Mill Road Left SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1116	6.67	7.57	7.85	1.18	1
12431	Ohinemuri Left Bank	Confluence to Mill Road Left SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1116	6.69	7.59	7.76	1.06	1
12432	Ohinemuri Left Bank	Confluence to Mill Road Left SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1116	6.72	7.62	7.77	1.05	1
12433	Ohinemuri Left Bank	Confluence to Mill Road Left SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	1117	6.75	7.65	7.63	0.91	1
12434	Ohinemuri Left Bank	Confluence to Mill Road Left SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	1117	6.78	7.68	7.73	0.96	1
12435	Ohinemuri Left Bank	Confluence to Mill Road Left SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	1117	6.85	7.75	7.77	0.96	1
12436	Ohinemuri Left Bank	Confluence to Mill Road Left SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	1117	6.89	7.79	7.77	0.88	2
12437	Ohinemuri Left Bank	Confluence to Mill Road Left SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	1118	6.92	7.82	7.81	0.89	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12438	Ohinemuri Left Bank	Confluence to Mill Road Left SB 26	Stopbank Link	2,600	1% AEP	0.90	2008/OH	918	7.10	8.00	7.87	0.81	2
12439	Ohinemuri Left Bank	Confluence to Mill Road Left SB 27	Stopbank Link	2,700	1% AEP	0.90	2008/OH	881	7.13	8.03	7.90	0.78	2
12440	Ohinemuri Left Bank	Confluence to Mill Road Left SB 28	Stopbank Link	2,800	1% AEP	0.90	2008/OH	830	7.17	8.07	7.96	0.83	2
12441	Ohinemuri Left Bank	Confluence to Mill Road Left SB 29	Stopbank Link	2,900	1% AEP	0.90	2008/OH	824	7.21	8.11	8.07	0.88	2
12442	Ohinemuri Left Bank	Confluence to Mill Road Left SB 30	Stopbank Link	3,000	1% AEP	0.90	2008/OH	826	7.22	8.12	8.06	0.83	2
12443	Ohinemuri Left Bank	Confluence to Mill Road Left SB 31	Stopbank Link	3,100	1% AEP	0.90	2008/OH	827	7.24	8.14	8.06	0.84	2
12444	Ohinemuri Left Bank	Confluence to Mill Road Left SB 32	Stopbank Link	3,200	1% AEP	0.90	2008/OH	825	7.25	8.15	8.04	0.79	2
12445	Ohinemuri Left Bank	Confluence to Mill Road Left SB 33	Stopbank Link	3,300	1% AEP	0.90	2008/OH	823	7.27	8.17	8.03	0.76	2
12446	Ohinemuri Left Bank	Confluence to Mill Road Left SB 34	Stopbank Link	3,400	1% AEP	0.90	2008/OH	821	7.28	8.18	8.01	0.75	2
12447	Ohinemuri Left Bank	Confluence to Mill Road Left SB 35	Stopbank Link	3,500	1% AEP	0.90	2008/OH	821	7.29	8.19	8.10	0.82	2
12448	Ohinemuri Left Bank	Confluence to Mill Road Left SB 36	Stopbank Link	3,600	1% AEP	0.90	2008/OH	819	7.30	8.20	7.99	0.69	2
12449	Ohinemuri Left Bank	Confluence to Mill Road Left SB 37	Stopbank Link	3,700	1% AEP	0.90	2008/OH	820	7.31	8.21	7.95	0.66	2
12450	Ohinemuri Left Bank	Confluence to Mill Road Left SB 38	Stopbank Link	3,800	1% AEP	0.90	2008/OH	823	7.32	8.22	8.01	0.70	2
12451	Ohinemuri Left Bank	Confluence to Mill Road Left SB 39	Stopbank Link	3,900	1% AEP	0.90	2008/OH	828	7.34	8.24	8.03	0.71	2
12452	Ohinemuri Left Bank	Confluence to Mill Road Left SB 40	Stopbank Link	4,000	1% AEP	0.90	2008/OH	832	7.36	8.26	8.03	0.67	2
12453	Ohinemuri Left Bank	Confluence to Mill Road Left SB 41	Stopbank Link	4,100	1% AEP	0.90	2008/OH	832	7.36	8.26	7.93	0.57	2
12454	Ohinemuri Left Bank	Confluence to Mill Road Left SB 42	Stopbank Link	4,124	1% AEP	0.90	2008/OH	831	7.37	8.27	8.09	0.72	2
34102	Ohinemuri Left Bank	Confluence to Mill Road Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	933	6.25	7.15	7.15	0.90	1
12456	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	829	7.38	8.28	7.98	0.61	2
12457	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	828	7.39	8.29	8.08	0.70	2
12458	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	825	7.40	8.30	8.30	0.91	1
12459	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	824	7.42	8.32	8.33	0.91	1
12460	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	827	7.43	8.33	8.22	0.80	2
12461	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	830	7.45	8.35	8.48	1.04	1
12462	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	834	7.48	8.38	8.14	0.67	2
12463	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	835	7.49	8.39	8.11	0.62	2
12464	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	835	7.50	8.40	8.08	0.58	2
12465	Ohinemuri Left Bank	Mill Road to Kuaoitit Left SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	836	7.52	8.42	8.23	0.71	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12466	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	836	7.53	8.43	8.26	0.73	2
12467	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	836	7.55	8.45	8.41	0.87	2
12468	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	831	7.60	8.50	8.63	1.07	1
12469	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	830	7.62	8.52	8.68	1.06	1
12470	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	828	7.64	8.54	8.63	1.00	1
12471	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	828	7.66	8.56	8.59	0.93	1
12472	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	832	7.67	8.57	8.50	0.83	2
12473	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	834	7.69	8.59	8.55	0.87	2
12474	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	838	7.71	8.61	8.49	0.78	2
12475	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 20	Stopbank Link	1,933	1% AEP	0.90	2008/OH	839	7.71	8.61	8.54	0.82	2
34103	Ohinemuri Left Bank	Mill Road to Kuaoit Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	829	7.37	8.27	8.05	0.69	2
12476	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	842	7.73	8.63	8.56	0.84	2
12477	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	842	7.74	8.64	8.48	0.74	2
12478	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	842	7.75	8.65	8.51	0.77	2
12479	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	841	7.77	8.67	8.67	0.91	1
12480	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	841	7.78	8.68	8.72	0.95	1
12481	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	848	7.83	8.73	8.95	1.12	1
12482	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	849	7.84	8.74	8.49	0.65	2
12483	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	852	7.85	8.75	8.49	0.65	2
12484	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	895	7.88	8.78	8.86	0.99	1
12485	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	956	7.91	8.81	8.88	0.99	1
12486	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1015	7.93	8.83	8.87	0.94	1
12487	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1068	7.96	8.86	9.01	1.08	1
12488	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1134	8.31	9.21	9.11	0.95	1
12489	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1133	8.35	9.25	9.14	0.80	2
12490	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1130	8.40	9.30	9.01	0.64	2
12491	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1128	8.46	9.36	8.97	0.56	2
12492	Ohinemuri Left Bank	Kuaoit to Rail Line Left SB 17	Stopbank Link	1,668	1% AEP	0.90	2008/OH	1128	8.48	9.38	9.10	0.63	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
34104	Ohinemuri Left Bank	Kuaoiti to Rail Line Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	842	7.73	8.63	8.54	0.82	2
12493	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1130	8.58	9.48	9.22	0.74	2
12494	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1208	8.71	9.61	9.35	0.73	2
12495	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1210	8.78	9.68	9.61	0.92	1
12496	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1211	8.83	9.73	9.73	0.97	1
12497	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1213	8.92	9.82	9.97	1.13	1
12498	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 06	Stopbank Link	590	1% AEP	0.90	1965	1222	9.28	10.18	10.07	0.79	2
34105	Ohinemuri Left Bank	Rail Bridge to Criterion Br Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1128	8.48	9.38	9.17	0.69	2
12502	Ohinemuri Left Bank	State Highway Left D/S Spillway 01	Spillway Link	100	1% AEP	0.00	1965	1221	9.23	9.23	8.37	-0.64	5
36773	Ohinemuri Left Bank	State Highway Left D/S Spillway 00	Spillway Link	0	1% AEP	0.00	1965		9.31	9.31	9.40	0.31	5
71405	Ohinemuri Left Bank	State Highway Left D/S Spillway 02	Spillway Link	155	1% AEP	0.00	1965	1222	9.27	9.27	8.36	-0.89	5
12500	Ohinemuri Left Bank	State Highway Left U/S Spillway 01	Spillway Link	100	1% AEP	0.00	1965	1221	9.25	9.25	8.40	-0.85	5
12501	Ohinemuri Left Bank	State Highway Left U/S Spillway 02	Spillway Link	166	1% AEP	0.00	1965	1222	9.28	9.28	8.25	-1.01	5
34108	Ohinemuri Left Bank	State Highway Left U/S Spillway 00	Spillway Link	0	1% AEP	0.00	1965		9.32	9.32	9.40	0.29	5
1478	Ohinemuri Left Bank	Criterion Bridge Left Bank Stoplog 01	Stoplog Link	22	1% AEP	0.90	1965	1222	9.28	10.18	10.03	0.75	2
34106	Ohinemuri Left Bank	Criterion Bridge Left Bank Stoplog 00	Stoplog Link	0	1% AEP	0.90	1965	1222	9.28	10.18	9.93	0.65	2
12503	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1223	9.31	10.21	9.58	0.30	3
12504	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1224	9.34	10.24	10.09	0.75	2
12505	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1225	9.40	10.30	10.03	0.69	2
12506	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1226	9.45	10.35	10.37	0.95	1
12507	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1236	9.83	10.73	10.63	0.99	1
12508	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1237	9.88	10.78	10.83	1.00	1
12509	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1250	10.36	11.26	10.96	0.62	2
12510	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1250	10.38	11.28	10.94	0.58	2
12511	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1252	10.42	11.32	11.48	1.08	1
12512	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1253	10.47	11.37	11.34	0.88	2
12513	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1254	10.50	11.40	11.41	0.95	1
12514	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1256	10.55	11.45	11.67	1.17	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12515	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1260	10.69	11.59	11.81	1.26	1
12516	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1262	10.74	11.64	11.77	1.05	1
12517	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1263	10.79	11.69	11.69	0.93	1
12518	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1264	10.82	11.72	11.62	0.80	2
12519	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1265	10.85	11.75	11.65	0.82	2
12520	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1266	10.89	11.79	11.97	1.09	1
12521	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1267	10.93	11.83	12.10	1.19	1
12522	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1290	11.61	12.51	12.26	0.81	2
12523	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1291	11.64	12.54	12.40	0.79	2
12524	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1292	11.67	12.57	12.74	1.11	1
12525	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1294	11.74	12.64	12.93	1.23	1
12526	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1298	11.86	12.76	13.04	1.24	1
12527	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1302	11.99	12.89	13.07	1.14	1
12528	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1305	12.07	12.97	13.10	1.05	1
12529	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1308	12.15	13.05	13.21	1.09	1
12530	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1310	12.23	13.13	13.34	1.12	1
12531	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1313	12.31	13.21	13.48	1.18	1
12532	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1316	12.40	13.30	13.56	1.23	1
12533	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1320	12.51	13.41	13.55	1.06	1
12534	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1322	12.58	13.48	13.56	1.05	1
12535	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1325	12.66	13.56	13.83	1.21	1
12536	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 34	Stopbank Link	3,391	1% AEP	0.90	1965	1326	12.71	13.61	14.03	1.35	1
34107	Ohinemuri Left Bank	Criterion Bridge to Gorge Left SB 00	Stopbank Link	0	1% AEP	0.90	1965		9.40	10.30	10.07	0.79	2
34734	Ohinemuri Right Bank	McLean Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	790	6.40	7.30	7.01	0.60	2
34735	Ohinemuri Right Bank	McLean Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	790	6.40	7.30	7.25	0.84	2
71407	Ohinemuri Right Bank	McLean Right SB 02	Stopbank Link	166	1% AEP	0.90	2008/OH	1113	6.28	7.18	7.24	0.96	1
12538	Ohinemuri Right Bank	Confluence to Rail Line Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	781	6.41	7.31	7.06	0.64	2
12539	Ohinemuri Right Bank	Confluence to Rail Line Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	777	6.42	7.32	7.35	0.94	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12540	Ohinemuri Right Bank	Confluence to Rail Line Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	765	6.43	7.33	7.43	1.01	1
12541	Ohinemuri Right Bank	Confluence to Rail Line Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	750	6.45	7.35	7.64	1.19	1
12542	Ohinemuri Right Bank	Confluence to Rail Line Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	732	6.47	7.37	7.46	1.00	1
12543	Ohinemuri Right Bank	Confluence to Rail Line Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	716	6.48	7.38	7.43	0.95	1
12544	Ohinemuri Right Bank	Confluence to Rail Line Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	701	6.50	7.40	7.29	0.80	2
12545	Ohinemuri Right Bank	Confluence to Rail Line Right SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	1114	6.51	7.41	7.56	1.07	1
12546	Ohinemuri Right Bank	Confluence to Rail Line Right SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	1114	6.54	7.44	8.20	1.68	1
12547	Ohinemuri Right Bank	Confluence to Rail Line Right SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	1115	6.57	7.47	8.19	1.63	1
12548	Ohinemuri Right Bank	Confluence to Rail Line Right SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1115	6.60	7.50	7.69	1.10	1
12549	Ohinemuri Right Bank	Confluence to Rail Line Right SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1116	6.68	7.58	7.72	1.10	1
12550	Ohinemuri Right Bank	Confluence to Rail Line Right SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1116	6.70	7.60	7.64	0.95	1
12551	Ohinemuri Right Bank	Confluence to Rail Line Right SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1116	6.72	7.62	7.64	0.94	1
12552	Ohinemuri Right Bank	Confluence to Rail Line Right SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1117	6.74	7.64	7.36	0.62	2
12553	Ohinemuri Right Bank	Confluence to Rail Line Right SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1117	6.77	7.67	7.90	1.15	1
12554	Ohinemuri Right Bank	Confluence to Rail Line Right SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1117	6.80	7.70	7.72	0.94	1
12555	Ohinemuri Right Bank	Confluence to Rail Line Right SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1117	6.82	7.72	7.83	1.02	1
12556	Ohinemuri Right Bank	Confluence to Rail Line Right SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1133	8.14	9.04	8.00	0.05	4
12557	Ohinemuri Right Bank	Confluence to Rail Line Right SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1133	8.15	9.05	8.18	0.04	4
12558	Ohinemuri Right Bank	Confluence to Rail Line Right SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	1133	8.17	9.07	8.56	0.39	3
12559	Ohinemuri Right Bank	Confluence to Rail Line Right SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	1134	8.20	9.10	8.78	0.60	2
12560	Ohinemuri Right Bank	Confluence to Rail Line Right SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	1135	8.27	9.17	9.09	0.88	2
12561	Ohinemuri Right Bank	Confluence to Rail Line Right SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	1133	8.35	9.25	9.29	0.99	1
12562	Ohinemuri Right Bank	Confluence to Rail Line Right SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	1131	8.40	9.30	9.41	1.02	1
12563	Ohinemuri Right Bank	Confluence to Rail Line Right SB 26	Stopbank Link	2,530	1% AEP	0.90	2008/OH	1130	8.42	9.32	9.42	1.02	1
34109	Ohinemuri Right Bank	Confluence to Rail Line Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	787	6.41	7.31			4
12566	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1129	8.52	9.42	9.07	0.60	2
12567	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1130	8.55	9.45	9.62	1.10	1
12568	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1130	8.60	9.50	10.08	1.52	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12569	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 04	Stopbank Link	400	1% AEP	0.90	1965	1210	8.76	9.66	10.11	1.36	1
12570	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 05	Stopbank Link	500	1% AEP	0.90	1965	1213	8.90	9.80	10.08	1.25	1
12571	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 06	Stopbank Link	600	1% AEP	0.90	1965	1215	8.99	9.89	10.19	1.27	1
12572	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 07	Stopbank Link	700	1% AEP	0.90	1965	1217	9.07	9.97	10.20	1.17	1
12573	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 08	Stopbank Link	728	1% AEP	0.90	1965	1217	9.07	9.97	10.09	1.02	1
34110	Ohinemuri Right Bank	Rail Line to Criterion Bridge SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1128	8.48	9.38	9.45	0.98	1
1479	Ohinemuri Right Bank	Criterion Bridge Right Bank Stoplog 01	Stoplog Link	12	1% AEP	0.90	1965	1217	9.08	9.98	10.08	1.00	1
34111	Ohinemuri Right Bank	Criterion Bridge Right Bank Stoplog 00	Stoplog Link	0	1% AEP	0.90	1965	1217	9.08	9.98	9.20	0.12	4
12575	Ohinemuri Right Bank	Criterion Bridge to Hospital Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1219	9.15	10.05	10.09	1.01	1
12576	Ohinemuri Right Bank	Criterion Bridge to Hospital Right SB 02	Stopbank Link	180	1% AEP	0.90	1965	1220	9.17	10.07	10.50	1.33	1
34112	Ohinemuri Right Bank	Criterion Bridge to Hospital Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1219	9.13	10.03	9.39	0.30	3
1480	Ohinemuri Right Bank	Thorp Street Stoplog 01	Stoplog Link	20	1% AEP	0.90	1965	1220	9.17	10.07	9.29	0.11	4
34113	Ohinemuri Right Bank	Thorp Street Stoplog 00	Stoplog Link	0	1% AEP	0.90	1965		9.34	10.24	9.52	0.35	3
22221	Ohinemuri Right Bank	Fraser Street Right SB 01	Stopbank Link	100	3% AEP	0.00							
22222	Ohinemuri Right Bank	Fraser Street Right SB 02	Stopbank Link	200	3% AEP	0.00							
22223	Ohinemuri Right Bank	Fraser Street Right SB 03	Stopbank Link	300	3% AEP	0.00							
34114	Ohinemuri Right Bank	Fraser Street Right SB 00	Stopbank Link	0	3% AEP	0.00							
71406	Ohinemuri Right Bank	Fraser Street Right SB 04	Stopbank Link	320	3% AEP	0.00							
-34	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.23	0.23	3
-7	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 22	Stopbank Link	2,204	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.31	0.31	2
-6	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 21	Stopbank Link	2,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.26	0.26	2
-5	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
-4	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.19	0.19	3
-3	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.14	0.14	3
-2	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.27	0.27	2
10732	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.06	0.06	4
10733	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.02	0.02	4
10734	Waihou River Left Bank	Mouth to Cox Floodgate Left SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.13	0.13	3

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10381	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.37	0.37	2
10382	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10383	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10384	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.60	0.60	1
10385	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10386	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.01	0.01	4
10387	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.31	0.31	2
10388	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.29	0.29	2
10389	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10390	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10391	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.21	0.21	3
10392	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.09	0.09	4
10393	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.39	0.39	2
10394	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.27	0.27	2
10395	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
10396	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.37	0.37	2
10397	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.35	0.35	2
10398	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
10399	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
10400	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
10401	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 21	Stopbank Link	2,010	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.19	0.19	3
33988	Waihou River Left Bank	Cox Floodgate to Kopu Left SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10402	Waihou River Left Bank	Kopu to Turua Left SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.11	0.11	4
10403	Waihou River Left Bank	Kopu to Turua Left SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10404	Waihou River Left Bank	Kopu to Turua Left SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.49	0.49	2
10405	Waihou River Left Bank	Kopu to Turua Left SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.45	0.45	2
10406	Waihou River Left Bank	Kopu to Turua Left SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.58	0.58	1
10407	Waihou River Left Bank	Kopu to Turua Left SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10408	Waihou River Left Bank	Kopu to Turua Left SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.16	0.16	3
10409	Waihou River Left Bank	Kopu to Turua Left SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.27	0.27	2
10410	Waihou River Left Bank	Kopu to Turua Left SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10411	Waihou River Left Bank	Kopu to Turua Left SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.79	-0.21	5
10412	Waihou River Left Bank	Kopu to Turua Left SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10413	Waihou River Left Bank	Kopu to Turua Left SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.59	0.59	1
10414	Waihou River Left Bank	Kopu to Turua Left SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
10415	Waihou River Left Bank	Kopu to Turua Left SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
10416	Waihou River Left Bank	Kopu to Turua Left SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10417	Waihou River Left Bank	Kopu to Turua Left SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.66	0.66	1
10418	Waihou River Left Bank	Kopu to Turua Left SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.59	0.59	1
10419	Waihou River Left Bank	Kopu to Turua Left SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.60	-0.40	5
10420	Waihou River Left Bank	Kopu to Turua Left SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10421	Waihou River Left Bank	Kopu to Turua Left SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.87	-0.13	5
10422	Waihou River Left Bank	Kopu to Turua Left SB 21	Stopbank Link	2,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.59	0.59	1
10423	Waihou River Left Bank	Kopu to Turua Left SB 22	Stopbank Link	2,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
10424	Waihou River Left Bank	Kopu to Turua Left SB 23	Stopbank Link	2,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10425	Waihou River Left Bank	Kopu to Turua Left SB 24	Stopbank Link	2,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10426	Waihou River Left Bank	Kopu to Turua Left SB 25	Stopbank Link	2,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
10427	Waihou River Left Bank	Kopu to Turua Left SB 26	Stopbank Link	2,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.13	0.13	3
10428	Waihou River Left Bank	Kopu to Turua Left SB 27	Stopbank Link	2,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.82	0.82	1
10429	Waihou River Left Bank	Kopu to Turua Left SB 28	Stopbank Link	2,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.41	0.41	2
10430	Waihou River Left Bank	Kopu to Turua Left SB 29	Stopbank Link	2,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.97	-0.03	5
10431	Waihou River Left Bank	Kopu to Turua Left SB 30	Stopbank Link	3,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.14	0.14	3
10432	Waihou River Left Bank	Kopu to Turua Left SB 31	Stopbank Link	3,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.20	0.20	3
10433	Waihou River Left Bank	Kopu to Turua Left SB 32	Stopbank Link	3,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.07	0.07	4
10434	Waihou River Left Bank	Kopu to Turua Left SB 33	Stopbank Link	3,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.85	-0.15	5
10435	Waihou River Left Bank	Kopu to Turua Left SB 34	Stopbank Link	3,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.95	-0.05	5

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10436	Waihou River Left Bank	Kopu to Turua Left SB 35	Stopbank Link	3,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.83	-0.17	5
10437	Waihou River Left Bank	Kopu to Turua Left SB 36	Stopbank Link	3,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.55	-0.45	5
10438	Waihou River Left Bank	Kopu to Turua Left SB 37	Stopbank Link	3,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.73	-0.27	5
10439	Waihou River Left Bank	Kopu to Turua Left SB 38	Stopbank Link	3,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.39	-0.61	5
10440	Waihou River Left Bank	Kopu to Turua Left SB 39	Stopbank Link	3,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.38	-0.62	5
10441	Waihou River Left Bank	Kopu to Turua Left SB 40	Stopbank Link	4,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.59	-0.41	5
10442	Waihou River Left Bank	Kopu to Turua Left SB 41	Stopbank Link	4,100	1% AEP	0.50	2008/Tide	0	3.00	3.50			4
10443	Waihou River Left Bank	Kopu to Turua Left SB 42	Stopbank Link	4,200	1% AEP	0.50	2008/Tide	0	3.00	3.50			4
10444	Waihou River Left Bank	Kopu to Turua Left SB 43	Stopbank Link	4,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.71	0.71	1
10445	Waihou River Left Bank	Kopu to Turua Left SB 44	Stopbank Link	4,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10446	Waihou River Left Bank	Kopu to Turua Left SB 45	Stopbank Link	4,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
10447	Waihou River Left Bank	Kopu to Turua Left SB 46	Stopbank Link	4,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10448	Waihou River Left Bank	Kopu to Turua Left SB 47	Stopbank Link	4,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
10449	Waihou River Left Bank	Kopu to Turua Left SB 48	Stopbank Link	4,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10450	Waihou River Left Bank	Kopu to Turua Left SB 49	Stopbank Link	4,869	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.65	0.65	1
33989	Waihou River Left Bank	Kopu to Turua Left SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.00	0.00	4
10451	Waihou River Left Bank	Turua Town Left SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.63	0.63	1
10452	Waihou River Left Bank	Turua Town Left SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10453	Waihou River Left Bank	Turua Town Left SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.60	0.60	1
10454	Waihou River Left Bank	Turua Town Left SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.60	0.60	1
10455	Waihou River Left Bank	Turua Town Left SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10456	Waihou River Left Bank	Turua Town Left SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10457	Waihou River Left Bank	Turua Town Left SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10458	Waihou River Left Bank	Turua Town Left SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
10459	Waihou River Left Bank	Turua Town Left SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10460	Waihou River Left Bank	Turua Town Left SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.67	0.67	1
10461	Waihou River Left Bank	Turua Town Left SB 11	Stopbank Link	1,047	1% AEP	0.50	2008/Tide	0	3.00	3.50			4
33990	Waihou River Left Bank	Turua Town Left SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50			4

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10462	Waihou River Left Bank	Turua to Huirau Road Left SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.96	-0.04	5
10463	Waihou River Left Bank	Turua to Huirau Road Left SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.65	0.65	1
10464	Waihou River Left Bank	Turua to Huirau Road Left SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.60	0.60	1
10465	Waihou River Left Bank	Turua to Huirau Road Left SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10466	Waihou River Left Bank	Turua to Huirau Road Left SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10467	Waihou River Left Bank	Turua to Huirau Road Left SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.50	0.50	1
10468	Waihou River Left Bank	Turua to Huirau Road Left SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10469	Waihou River Left Bank	Turua to Huirau Road Left SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
10470	Waihou River Left Bank	Turua to Huirau Road Left SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
10471	Waihou River Left Bank	Turua to Huirau Road Left SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
10472	Waihou River Left Bank	Turua to Huirau Road Left SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10473	Waihou River Left Bank	Turua to Huirau Road Left SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10474	Waihou River Left Bank	Turua to Huirau Road Left SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50			4
10475	Waihou River Left Bank	Turua to Huirau Road Left SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10476	Waihou River Left Bank	Turua to Huirau Road Left SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10477	Waihou River Left Bank	Turua to Huirau Road Left SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10478	Waihou River Left Bank	Turua to Huirau Road Left SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10479	Waihou River Left Bank	Turua to Huirau Road Left SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.63	0.63	1
10480	Waihou River Left Bank	Turua to Huirau Road Left SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.65	0.65	1
10481	Waihou River Left Bank	Turua to Huirau Road Left SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.75	0.75	1
10482	Waihou River Left Bank	Turua to Huirau Road Left SB 21	Stopbank Link	2,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.70	0.70	1
10483	Waihou River Left Bank	Turua to Huirau Road Left SB 22	Stopbank Link	2,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.73	0.73	1
10484	Waihou River Left Bank	Turua to Huirau Road Left SB 23	Stopbank Link	2,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.76	0.76	1
10485	Waihou River Left Bank	Turua to Huirau Road Left SB 24	Stopbank Link	2,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.75	0.75	1
10486	Waihou River Left Bank	Turua to Huirau Road Left SB 25	Stopbank Link	2,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.75	0.75	1
10487	Waihou River Left Bank	Turua to Huirau Road Left SB 26	Stopbank Link	2,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10488	Waihou River Left Bank	Turua to Huirau Road Left SB 27	Stopbank Link	2,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.65	0.65	1
10489	Waihou River Left Bank	Turua to Huirau Road Left SB 28	Stopbank Link	2,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.63	0.63	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10490	Waihou River Left Bank	Turua to Huirau Road Left SB 29	Stopbank Link	2,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
10491	Waihou River Left Bank	Turua to Huirau Road Left SB 30	Stopbank Link	3,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.58	0.58	1
10492	Waihou River Left Bank	Turua to Huirau Road Left SB 31	Stopbank Link	3,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10493	Waihou River Left Bank	Turua to Huirau Road Left SB 32	Stopbank Link	3,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.61	0.61	1
10494	Waihou River Left Bank	Turua to Huirau Road Left SB 33	Stopbank Link	3,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10495	Waihou River Left Bank	Turua to Huirau Road Left SB 34	Stopbank Link	3,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10496	Waihou River Left Bank	Turua to Huirau Road Left SB 35	Stopbank Link	3,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.58	0.58	1
10497	Waihou River Left Bank	Turua to Huirau Road Left SB 36	Stopbank Link	3,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10498	Waihou River Left Bank	Turua to Huirau Road Left SB 37	Stopbank Link	3,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10499	Waihou River Left Bank	Turua to Huirau Road Left SB 38	Stopbank Link	3,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
10500	Waihou River Left Bank	Turua to Huirau Road Left SB 39	Stopbank Link	3,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10501	Waihou River Left Bank	Turua to Huirau Road Left SB 40	Stopbank Link	4,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.58	0.58	1
10502	Waihou River Left Bank	Turua to Huirau Road Left SB 41	Stopbank Link	4,100	1% AEP	0.90	2008/OH	1043	2.37	3.27	3.55	1.20	1
10503	Waihou River Left Bank	Turua to Huirau Road Left SB 42	Stopbank Link	4,200	1% AEP	0.90	2008/OH	1044	2.37	3.27	3.56	1.19	1
10504	Waihou River Left Bank	Turua to Huirau Road Left SB 43	Stopbank Link	4,300	1% AEP	0.90	2008/OH	1046	2.38	3.28	3.57	1.20	1
10505	Waihou River Left Bank	Turua to Huirau Road Left SB 44	Stopbank Link	4,400	1% AEP	0.90	2008/OH	1048	2.39	3.29	3.60	1.22	1
10506	Waihou River Left Bank	Turua to Huirau Road Left SB 45	Stopbank Link	4,500	1% AEP	0.90	2008/OH	1049	2.40	3.30	3.84	1.45	1
10507	Waihou River Left Bank	Turua to Huirau Road Left SB 46	Stopbank Link	4,600	1% AEP	0.90	2008/OH	1050	2.41	3.31	3.61	1.21	1
10508	Waihou River Left Bank	Turua to Huirau Road Left SB 47	Stopbank Link	4,696	1% AEP	0.90	2008/OH	1048	2.43	3.33	3.56	1.15	1
33991	Waihou River Left Bank	Turua to Huirau Road Left SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.76	-0.24	5
10511	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1047	2.44	3.34	3.72	1.28	1
10512	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1045	2.47	3.37	3.71	1.26	1
10513	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1043	2.49	3.39	3.69	1.22	1
10514	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	1042	2.50	3.40	3.75	1.26	1
10515	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	1040	2.52	3.42	3.80	1.28	1
10516	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	1038	2.54	3.44	3.80	1.27	1
10517	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	1036	2.56	3.46	3.76	1.22	1
10518	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	1033	2.58	3.48	3.80	1.23	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10519	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	1030	2.60	3.50	3.69	1.10	1
10520	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	1028	2.62	3.52	3.71	1.10	1
10521	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1025	2.63	3.53	3.73	1.11	1
10522	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1022	2.65	3.55	3.73	1.09	1
10523	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1019	2.67	3.57	3.66	1.00	1
10524	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1018	2.69	3.59	3.77	1.10	1
10525	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1019	2.70	3.60	4.13	1.44	1
10526	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1020	2.71	3.61	3.61	0.91	1
10527	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1021	2.72	3.62	3.68	0.97	1
10528	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1022	2.72	3.62	3.90	1.18	1
10529	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1023	2.73	3.63	3.83	1.10	1
10530	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1025	2.75	3.65	3.72	0.98	1
10531	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	1026	2.75	3.65	3.72	0.97	1
10532	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	1026	2.76	3.66	3.67	0.91	1
10533	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	1025	2.77	3.67	3.67	0.91	1
10534	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	1024	2.78	3.68	3.81	1.04	1
10535	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	1024	2.79	3.69	3.90	1.11	1
10536	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 26	Stopbank Link	2,600	1% AEP	0.90	2008/OH	1023	2.80	3.70	3.85	1.05	1
10537	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 27	Stopbank Link	2,637	1% AEP	0.90	2008/OH	1022	2.81	3.71	3.98	1.18	1
33992	Waihou River Left Bank	Huirau Rd to Gumtown Rd Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1048	2.43	3.33	3.62	1.19	1
11594	Waihou River Left Bank	Gumtown Road to Cut Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1022	2.82	3.72			
11595	Waihou River Left Bank	Gumtown Road to Cut Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1021	2.83	3.73			
11596	Waihou River Left Bank	Gumtown Road to Cut Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1020	2.84	3.74			
11597	Waihou River Left Bank	Gumtown Road to Cut Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	1019	2.85	3.75			
11598	Waihou River Left Bank	Gumtown Road to Cut Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	1019	2.86	3.76			
11599	Waihou River Left Bank	Gumtown Road to Cut Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	1018	2.88	3.78			
11600	Waihou River Left Bank	Gumtown Road to Cut Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	1017	2.89	3.79			
11601	Waihou River Left Bank	Gumtown Road to Cut Left SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	1017	2.90	3.80			

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11602	Waihou River Left Bank	Gumtown Road to Cut Left SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	1016	2.92	3.82			
11603	Waihou River Left Bank	Gumtown Road to Cut Left SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	1016	2.93	3.83			
11604	Waihou River Left Bank	Gumtown Road to Cut Left SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1015	2.94	3.84			
11605	Waihou River Left Bank	Gumtown Road to Cut Left SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1015	2.96	3.86			
11606	Waihou River Left Bank	Gumtown Road to Cut Left SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1015	2.97	3.87			
11607	Waihou River Left Bank	Gumtown Road to Cut Left SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1016	3.00	3.90			
11608	Waihou River Left Bank	Gumtown Road to Cut Left SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1017	3.03	3.93			
11609	Waihou River Left Bank	Gumtown Road to Cut Left SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1017	3.04	3.94			
11610	Waihou River Left Bank	Gumtown Road to Cut Left SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1018	3.07	3.97			
11611	Waihou River Left Bank	Gumtown Road to Cut Left SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1019	3.08	3.98			
11612	Waihou River Left Bank	Gumtown Road to Cut Left SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1020	3.11	4.01			
11613	Waihou River Left Bank	Gumtown Road to Cut Left SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1020	3.12	4.02			
11614	Waihou River Left Bank	Gumtown Road to Cut Left SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	1021	3.14	4.04			
11615	Waihou River Left Bank	Gumtown Road to Cut Left SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	1022	3.17	4.07			
11616	Waihou River Left Bank	Gumtown Road to Cut Left SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	1025	3.22	4.12			
11617	Waihou River Left Bank	Gumtown Road to Cut Left SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	1028	3.24	4.14			
11618	Waihou River Left Bank	Gumtown Road to Cut Left SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	1033	3.27	4.17			
11619	Waihou River Left Bank	Gumtown Road to Cut Left SB 26	Stopbank Link	2,600	1% AEP	0.90	2008/OH	1038	3.30	4.20			
11620	Waihou River Left Bank	Gumtown Road to Cut Left SB 27	Stopbank Link	2,700	1% AEP	0.90	2008/OH	1040	3.31	4.21			
11621	Waihou River Left Bank	Gumtown Road to Cut Left SB 28	Stopbank Link	2,800	1% AEP	0.90	2008/OH	1041	3.32	4.22			
11622	Waihou River Left Bank	Gumtown Road to Cut Left SB 29	Stopbank Link	2,900	1% AEP	0.90	2008/OH	1043	3.34	4.24			
11623	Waihou River Left Bank	Gumtown Road to Cut Left SB 30	Stopbank Link	3,000	1% AEP	0.90	2008/OH	1046	3.36	4.26			
11624	Waihou River Left Bank	Gumtown Road to Cut Left SB 31	Stopbank Link	3,100	1% AEP	0.90	2008/OH	1004	3.37	4.27			
11625	Waihou River Left Bank	Gumtown Road to Cut Left SB 32	Stopbank Link	3,200	1% AEP	0.90	2008/OH	960	3.38	4.28			
11626	Waihou River Left Bank	Gumtown Road to Cut Left SB 33	Stopbank Link	3,300	1% AEP	0.90	2008/OH	916	3.40	4.30			
11627	Waihou River Left Bank	Gumtown Road to Cut Left SB 34	Stopbank Link	3,400	1% AEP	0.90	2008/OH	881	3.41	4.31			
11628	Waihou River Left Bank	Gumtown Road to Cut Left SB 35	Stopbank Link	3,482	1% AEP	0.90	2008/OH	843	3.42	4.32			
33993	Waihou River Left Bank	Gumtown Road to Cut Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1022	2.81	3.71			

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
-83	Waihou River Left Bank	Hikutaia Cut D/S Left Spillway 04	Spillway Link	358	20% AEP	0.00	2008/WH	495	2.04	2.04	2.58	0.54	5
10736	Waihou River Left Bank	Hikutaia Cut D/S Left Spillway 01	Spillway Link	100	20% AEP	0.00	2008/WH	499	2.03	2.03	1.98	-0.05	3
18955	Waihou River Left Bank	Hikutaia Cut D/S Left Spillway 02	Spillway Link	200	20% AEP	0.00	2008/WH	494	2.03	2.03	2.02	-0.01	1
18956	Waihou River Left Bank	Hikutaia Cut D/S Left Spillway 03	Spillway Link	300	20% AEP	0.00	2008/WH	492	2.04	2.04	1.99	-0.04	2
34002	Waihou River Left Bank	Hikutaia Cut D/S Left Spillway 00	Spillway Link	0	20% AEP	0.00	2008/WH	499	2.03	2.03	4.52	2.50	5
-85	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 07	Spillway Link	613	20% AEP	0.00	2008/WH	500	2.47	2.47	4.14	1.67	5
-84	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 06	Spillway Link	600	20% AEP	0.00	2008/WH	500	2.47	2.47	2.79	0.33	5
10737	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 01	Spillway Link	100	20% AEP	0.00	2008/WH	501	2.41	2.42	2.77	0.36	5
18957	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 02	Spillway Link	200	20% AEP	0.00	2008/WH	501	2.42	2.42	2.63	0.22	5
18958	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 03	Spillway Link	300	20% AEP	0.00	2008/WH	501	2.43	2.43	2.44	0.02	1
18959	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 04	Spillway Link	400	20% AEP	0.00	2008/WH	501	2.44	2.44	2.55	0.12	5
18960	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 05	Spillway Link	500	20% AEP	0.00	2008/WH	501	2.45	2.45	2.71	0.26	5
34003	Waihou River Left Bank	Hikutaia Cut Upstream Left Spillway 00	Spillway Link	0	20% AEP	0.00	2008/WH	501	2.40	2.41	3.68	1.27	5
-8	Waihou River Left Bank	Cut to Hauraki Road Left SB 20	Stopbank Link	1,955	1% AEP	0.90	1965	1565	3.94	4.84	4.70	0.76	2
11631	Waihou River Left Bank	Cut to Hauraki Road Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	800	3.43	4.33	4.31	0.89	2
11632	Waihou River Left Bank	Cut to Hauraki Road Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	772	3.44	4.34	4.52	1.09	1
11633	Waihou River Left Bank	Cut to Hauraki Road Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	741	3.45	4.35	4.70	1.26	1
11634	Waihou River Left Bank	Cut to Hauraki Road Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	708	3.46	4.36	4.45	1.00	1
11635	Waihou River Left Bank	Cut to Hauraki Road Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	705	3.46	4.36	4.36	0.90	1
11636	Waihou River Left Bank	Cut to Hauraki Road Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	705	3.46	4.36	4.32	0.86	2
11637	Waihou River Left Bank	Cut to Hauraki Road Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	900	3.75	4.65	4.87	1.41	1
11638	Waihou River Left Bank	Cut to Hauraki Road Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1558	3.75	4.65	4.90	1.15	1
11639	Waihou River Left Bank	Cut to Hauraki Road Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1558	3.76	4.66	5.00	1.25	1
11640	Waihou River Left Bank	Cut to Hauraki Road Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1559	3.76	4.66	4.80	1.04	1
11641	Waihou River Left Bank	Cut to Hauraki Road Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1559	3.77	4.67	4.82	1.06	1
11642	Waihou River Left Bank	Cut to Hauraki Road Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1559	3.78	4.68	4.63	0.86	2
11643	Waihou River Left Bank	Cut to Hauraki Road Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1560	3.80	4.70	4.45	0.67	2
11644	Waihou River Left Bank	Cut to Hauraki Road Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1561	3.82	4.72	4.84	1.03	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11645	Waihou River Left Bank	Cut to Hauraki Road Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1562	3.84	4.74	4.90	1.09	1
11646	Waihou River Left Bank	Cut to Hauraki Road Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1562	3.86	4.76	5.02	1.16	1
11647	Waihou River Left Bank	Cut to Hauraki Road Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1563	3.88	4.78	4.96	1.10	1
11648	Waihou River Left Bank	Cut to Hauraki Road Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1564	3.90	4.80	4.78	0.88	2
11649	Waihou River Left Bank	Cut to Hauraki Road Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1565	3.92	4.82	4.83	0.91	1
33994	Waihou River Left Bank	Cut to Hauraki Road Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	843	3.42	4.32	4.40	0.98	1
11650	Waihou River Left Bank	Hauraki Road to Netherton Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1566	3.96	4.86	4.79	0.85	2
11651	Waihou River Left Bank	Hauraki Road to Netherton Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1567	3.98	4.88	4.90	0.93	1
11652	Waihou River Left Bank	Hauraki Road to Netherton Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1567	4.00	4.90	4.84	0.85	2
11653	Waihou River Left Bank	Hauraki Road to Netherton Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1568	4.02	4.92	4.95	0.93	1
11654	Waihou River Left Bank	Hauraki Road to Netherton Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1569	4.04	4.94	5.00	0.98	1
11655	Waihou River Left Bank	Hauraki Road to Netherton Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1570	4.07	4.97	4.99	0.93	1
11656	Waihou River Left Bank	Hauraki Road to Netherton Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1571	4.09	4.99	5.14	1.07	1
11657	Waihou River Left Bank	Hauraki Road to Netherton Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1571	4.11	5.01	5.15	1.05	1
11658	Waihou River Left Bank	Hauraki Road to Netherton Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1572	4.13	5.03	5.13	1.01	1
11659	Waihou River Left Bank	Hauraki Road to Netherton Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1573	4.15	5.05	5.19	1.06	1
11660	Waihou River Left Bank	Hauraki Road to Netherton Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1573	4.16	5.06	5.37	1.21	1
11661	Waihou River Left Bank	Hauraki Road to Netherton Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1574	4.19	5.09	5.28	1.11	1
11662	Waihou River Left Bank	Hauraki Road to Netherton Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1575	4.21	5.11	5.43	1.23	1
11663	Waihou River Left Bank	Hauraki Road to Netherton Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1576	4.23	5.13	5.41	1.20	1
11664	Waihou River Left Bank	Hauraki Road to Netherton Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1576	4.25	5.15	5.31	1.06	1
11665	Waihou River Left Bank	Hauraki Road to Netherton Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1577	4.28	5.18	5.45	1.18	1
11666	Waihou River Left Bank	Hauraki Road to Netherton Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1578	4.30	5.20	5.54	1.26	1
11667	Waihou River Left Bank	Hauraki Road to Netherton Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1579	4.31	5.21	5.43	1.11	1
11668	Waihou River Left Bank	Hauraki Road to Netherton Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1579	4.33	5.23	5.29	0.97	1
11669	Waihou River Left Bank	Hauraki Road to Netherton Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1580	4.35	5.25	5.37	1.02	1
11670	Waihou River Left Bank	Hauraki Road to Netherton Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1581	4.37	5.27	5.57	1.20	1
11671	Waihou River Left Bank	Hauraki Road to Netherton Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1581	4.39	5.29	5.54	1.16	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11672	Waihou River Left Bank	Hauraki Road to Netherton Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1582	4.42	5.32	5.58	1.18	1
11673	Waihou River Left Bank	Hauraki Road to Netherton Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1583	4.45	5.35	5.43	0.99	1
11674	Waihou River Left Bank	Hauraki Road to Netherton Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1584	4.47	5.37	5.44	0.97	1
11675	Waihou River Left Bank	Hauraki Road to Netherton Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1585	4.49	5.39	5.21	0.73	2
11676	Waihou River Left Bank	Hauraki Road to Netherton Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1586	4.51	5.41	5.32	0.81	2
11677	Waihou River Left Bank	Hauraki Road to Netherton Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1586	4.53	5.43	5.44	0.93	1
11678	Waihou River Left Bank	Hauraki Road to Netherton Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1587	4.55	5.45	5.67	1.12	1
11679	Waihou River Left Bank	Hauraki Road to Netherton Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1588	4.57	5.47	5.61	1.05	1
11680	Waihou River Left Bank	Hauraki Road to Netherton Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1588	4.59	5.49	5.73	1.16	1
11681	Waihou River Left Bank	Hauraki Road to Netherton Left SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1589	4.61	5.51	5.72	1.12	1
11682	Waihou River Left Bank	Hauraki Road to Netherton Left SB 33	Stopbank Link	3,269	1% AEP	0.90	1965	1589	4.62	5.52	5.85	1.23	1
33995	Waihou River Left Bank	Hauraki Road to Netherton Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1565	3.93	4.83			4
11684	Waihou River Left Bank	Netherton to Waimarie Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1590	4.64	5.54	5.50	0.87	2
11685	Waihou River Left Bank	Netherton to Waimarie Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1591	4.65	5.55	5.53	0.89	2
11686	Waihou River Left Bank	Netherton to Waimarie Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1591	4.67	5.57	5.74	1.08	1
11687	Waihou River Left Bank	Netherton to Waimarie Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1592	4.69	5.59	5.85	1.16	1
11688	Waihou River Left Bank	Netherton to Waimarie Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1593	4.71	5.61	5.75	1.06	1
11689	Waihou River Left Bank	Netherton to Waimarie Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1593	4.72	5.62	5.58	0.86	2
11690	Waihou River Left Bank	Netherton to Waimarie Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1594	4.74	5.64	5.64	0.92	1
11691	Waihou River Left Bank	Netherton to Waimarie Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1595	4.77	5.67	5.69	0.93	1
11692	Waihou River Left Bank	Netherton to Waimarie Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1595	4.79	5.69	5.69	0.92	1
11693	Waihou River Left Bank	Netherton to Waimarie Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1596	4.81	5.71	5.79	1.00	1
11694	Waihou River Left Bank	Netherton to Waimarie Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1597	4.82	5.72	6.06	1.24	1
11695	Waihou River Left Bank	Netherton to Waimarie Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1597	4.84	5.74	6.06	1.22	1
11696	Waihou River Left Bank	Netherton to Waimarie Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1598	4.86	5.76	6.05	1.21	1
11697	Waihou River Left Bank	Netherton to Waimarie Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1599	4.88	5.78	5.96	1.10	1
11698	Waihou River Left Bank	Netherton to Waimarie Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1600	4.90	5.80	6.00	1.10	1
11699	Waihou River Left Bank	Netherton to Waimarie Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1600	4.92	5.82	6.04	1.12	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11700	Waihou River Left Bank	Netherton to Waimarie Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1602	4.96	5.86	6.10	1.17	1
11701	Waihou River Left Bank	Netherton to Waimarie Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1602	4.98	5.88	6.14	1.16	1
11702	Waihou River Left Bank	Netherton to Waimarie Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1604	5.02	5.92	6.18	1.20	1
11703	Waihou River Left Bank	Netherton to Waimarie Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1605	5.04	5.94	6.28	1.25	1
11704	Waihou River Left Bank	Netherton to Waimarie Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1606	5.07	5.97	6.13	1.07	1
11705	Waihou River Left Bank	Netherton to Waimarie Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1606	5.09	5.99	6.25	1.16	1
11706	Waihou River Left Bank	Netherton to Waimarie Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1608	5.14	6.04	6.34	1.23	1
11707	Waihou River Left Bank	Netherton to Waimarie Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1609	5.16	6.06	6.24	1.08	1
11708	Waihou River Left Bank	Netherton to Waimarie Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1609	5.17	6.07	6.26	1.09	1
11709	Waihou River Left Bank	Netherton to Waimarie Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1610	5.19	6.09	6.26	1.09	1
11710	Waihou River Left Bank	Netherton to Waimarie Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1611	5.21	6.11	6.25	1.05	1
11711	Waihou River Left Bank	Netherton to Waimarie Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1611	5.23	6.13	6.24	1.01	1
11712	Waihou River Left Bank	Netherton to Waimarie Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1612	5.25	6.15	6.24	1.00	1
11713	Waihou River Left Bank	Netherton to Waimarie Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1613	5.27	6.17	6.27	1.02	1
11714	Waihou River Left Bank	Netherton to Waimarie Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1613	5.28	6.18	6.47	1.19	1
11715	Waihou River Left Bank	Netherton to Waimarie Left SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1614	5.30	6.20	6.49	1.20	1
11716	Waihou River Left Bank	Netherton to Waimarie Left SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1614	5.31	6.21	6.49	1.19	1
11717	Waihou River Left Bank	Netherton to Waimarie Left SB 34	Stopbank Link	3,400	1% AEP	0.90	1965	1614	5.31	6.21	6.45	1.14	1
11718	Waihou River Left Bank	Netherton to Waimarie Left SB 35	Stopbank Link	3,410	1% AEP	0.90	1965	1614	5.31	6.21	6.45	1.14	1
33996	Waihou River Left Bank	Netherton to Waimarie Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1589	4.62	5.52	6.06	1.44	1
11720	Waihou River Left Bank	Waimarie to Puke Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1624	5.59	6.49	6.38	0.81	2
11721	Waihou River Left Bank	Waimarie to Puke Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1626	5.63	6.53	6.49	0.90	2
11722	Waihou River Left Bank	Waimarie to Puke Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1627	5.66	6.56	6.47	0.84	2
11723	Waihou River Left Bank	Waimarie to Puke Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1627	5.68	6.58	6.50	0.83	2
11724	Waihou River Left Bank	Waimarie to Puke Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1628	5.70	6.60	6.44	0.74	2
11725	Waihou River Left Bank	Waimarie to Puke Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1628	5.72	6.62	6.62	0.91	1
11726	Waihou River Left Bank	Waimarie to Puke Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1629	5.74	6.64	6.79	1.05	1
11727	Waihou River Left Bank	Waimarie to Puke Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1629	5.76	6.66	6.76	1.01	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11728	Waihou River Left Bank	Waimarie to Puke Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1630	5.78	6.68	6.72	0.95	1
11729	Waihou River Left Bank	Waimarie to Puke Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1630	5.80	6.70	6.80	1.01	1
11730	Waihou River Left Bank	Waimarie to Puke Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1630	5.81	6.71	6.84	1.03	1
11731	Waihou River Left Bank	Waimarie to Puke Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1631	5.83	6.73	6.87	1.04	1
11732	Waihou River Left Bank	Waimarie to Puke Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1632	5.88	6.78	6.86	0.99	1
11733	Waihou River Left Bank	Waimarie to Puke Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1632	5.91	6.81	6.91	1.01	1
11734	Waihou River Left Bank	Waimarie to Puke Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1633	5.94	6.84	6.76	0.83	2
11735	Waihou River Left Bank	Waimarie to Puke Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1633	5.96	6.86	6.91	0.96	1
11736	Waihou River Left Bank	Waimarie to Puke Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1634	5.97	6.87	6.82	0.85	2
11737	Waihou River Left Bank	Waimarie to Puke Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1634	5.98	6.88	6.92	0.94	1
11738	Waihou River Left Bank	Waimarie to Puke Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1634	6.00	6.90	6.80	0.81	2
11739	Waihou River Left Bank	Waimarie to Puke Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1635	6.01	6.91	6.85	0.84	2
11740	Waihou River Left Bank	Waimarie to Puke Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1635	6.02	6.92	6.85	0.83	2
11741	Waihou River Left Bank	Waimarie to Puke Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1635	6.04	6.94	6.91	0.89	2
11742	Waihou River Left Bank	Waimarie to Puke Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1636	6.07	6.97	7.05	1.01	1
11743	Waihou River Left Bank	Waimarie to Puke Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1636	6.10	7.00	7.05	0.98	1
11744	Waihou River Left Bank	Waimarie to Puke Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1637	6.13	7.03	7.00	0.88	2
11745	Waihou River Left Bank	Waimarie to Puke Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1638	6.16	7.06	7.10	0.96	1
11746	Waihou River Left Bank	Waimarie to Puke Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1638	6.18	7.08	7.10	0.93	1
11747	Waihou River Left Bank	Waimarie to Puke Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1639	6.20	7.10	6.96	0.77	2
11748	Waihou River Left Bank	Waimarie to Puke Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1639	6.22	7.12	7.12	0.90	1
11749	Waihou River Left Bank	Waimarie to Puke Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1640	6.24	7.14	7.16	0.93	1
11750	Waihou River Left Bank	Waimarie to Puke Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1640	6.26	7.16	7.02	0.77	2
11751	Waihou River Left Bank	Waimarie to Puke Left SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1640	6.28	7.18	7.23	0.97	1
11752	Waihou River Left Bank	Waimarie to Puke Left SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1641	6.32	7.22	7.25	0.97	1
11753	Waihou River Left Bank	Waimarie to Puke Left SB 34	Stopbank Link	3,400	1% AEP	0.90	1965	1642	6.34	7.24	7.52	1.19	1
11754	Waihou River Left Bank	Waimarie to Puke Left SB 35	Stopbank Link	3,500	1% AEP	0.90	1965	1642	6.36	7.26	7.19	0.83	2
11755	Waihou River Left Bank	Waimarie to Puke Left SB 36	Stopbank Link	3,560	1% AEP	0.90	1965	1642	6.37	7.27			4

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
33997	Waihou River Left Bank	Waimarie to Puke Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1614	5.31	6.21	6.45	1.14	1
12577	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1642	6.38	7.28	7.16	0.79	2
12578	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1642	6.40	7.30	7.17	0.78	2
12579	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1642	6.41	7.31	7.07	0.67	2
12580	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1642	6.42	7.32	7.01	0.60	2
12581	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1642	6.43	7.33	7.08	0.64	2
12582	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1623	6.44	7.34	7.13	0.70	2
12583	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1304	6.46	7.36	7.27	0.82	2
12584	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	6.47	7.37	7.21	0.73	2
12585	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	6.48	7.38	7.04	0.56	2
12586	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	6.49	7.39	6.94	0.45	3
12587	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	6.51	7.41	6.83	0.32	3
12588	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	6.52	7.42	7.16	0.65	2
12589	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	6.53	7.43	7.19	0.66	2
12590	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	6.54	7.44	7.15	0.62	2
12591	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	6.55	7.45	7.15	0.60	2
12592	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	6.56	7.46	7.07	0.50	2
12593	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	6.57	7.47	7.24	0.67	2
12594	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	6.59	7.49	7.41	0.82	2
12595	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	6.60	7.50	7.35	0.76	2
12596	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	6.61	7.51	7.11	0.51	2
12597	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 21	Stopbank Link	2,067	1% AEP	0.90	1965	1048	6.61	7.51	6.89	0.28	3
33998	Waihou River Left Bank	Confl to Tirohia Pukahu Rd Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1642	6.36	7.26			4
12598	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	6.62	7.52	7.26	0.65	2
12599	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	6.62	7.52	7.39	0.77	2
12600	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	6.64	7.54	7.41	0.77	2
12601	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	6.66	7.56	7.38	0.74	2
12602	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	6.66	7.56	7.19	0.53	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12603	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	6.67	7.57	7.30	0.63	2
12604	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	6.68	7.58	7.56	0.88	2
12605	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	6.69	7.59	7.50	0.81	2
12606	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	6.71	7.61	7.52	0.82	2
12607	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	6.72	7.62	7.53	0.82	2
12608	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	6.78	7.68	7.69	0.97	1
12609	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	6.79	7.69	7.90	1.12	1
12610	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	6.79	7.69	7.96	1.16	1
12611	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	6.80	7.70	7.84	1.03	1
12612	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	6.81	7.71	7.02	0.21	4
12613	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	6.82	7.72	7.14	0.33	3
12614	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	6.83	7.73	7.71	0.89	2
12615	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	6.84	7.74	7.51	0.67	2
12616	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	6.87	7.77	7.44	0.59	2
12617	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	6.88	7.78	7.65	0.78	2
12618	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	6.88	7.78	7.90	1.02	1
12619	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	6.89	7.79	7.69	0.80	2
12620	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1048	6.90	7.80	7.54	0.64	2
12621	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1048	6.91	7.81	7.68	0.78	2
12622	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1048	6.92	7.82	7.62	0.70	2
12623	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1048	6.93	7.83	7.71	0.79	2
12624	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1048	6.93	7.83	7.67	0.74	2
12625	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1048	6.94	7.84	7.65	0.71	2
12626	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 29	Stopbank Link	2,890	1% AEP	0.90	1965	1048	6.95	7.85	8.10	1.15	1
33999	Waihou River Left Bank	Pukahu Road to Buchanans Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	6.61	7.51	7.32	0.71	2
12628	Waihou River Left Bank	Buchanans to Awaiti Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	6.96	7.86	7.94	0.98	1
12629	Waihou River Left Bank	Buchanans to Awaiti Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	6.97	7.87	7.96	1.01	1
12630	Waihou River Left Bank	Buchanans to Awaiti Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	7.02	7.92	7.95	0.94	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12631	Waihou River Left Bank	Buchanans to Awaiti Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	7.03	7.93	7.92	0.89	2
12632	Waihou River Left Bank	Buchanans to Awaiti Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	7.04	7.94	7.57	0.54	2
12633	Waihou River Left Bank	Buchanans to Awaiti Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	7.05	7.95	7.69	0.66	2
12634	Waihou River Left Bank	Buchanans to Awaiti Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	7.05	7.95	7.87	0.82	2
12635	Waihou River Left Bank	Buchanans to Awaiti Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	7.06	7.96	7.80	0.74	2
12636	Waihou River Left Bank	Buchanans to Awaiti Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	7.10	8.00	7.96	0.89	2
12637	Waihou River Left Bank	Buchanans to Awaiti Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	7.11	8.01	8.19	1.08	1
12638	Waihou River Left Bank	Buchanans to Awaiti Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	7.13	8.03	7.97	0.84	2
12639	Waihou River Left Bank	Buchanans to Awaiti Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	7.13	8.03	8.01	0.88	2
12640	Waihou River Left Bank	Buchanans to Awaiti Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	7.14	8.04	8.03	0.90	2
12641	Waihou River Left Bank	Buchanans to Awaiti Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	7.14	8.04	8.22	1.08	1
12642	Waihou River Left Bank	Buchanans to Awaiti Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	7.19	8.09	8.49	1.31	1
12643	Waihou River Left Bank	Buchanans to Awaiti Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	7.19	8.09	8.39	1.20	1
12644	Waihou River Left Bank	Buchanans to Awaiti Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	7.20	8.10	8.25	1.06	1
12645	Waihou River Left Bank	Buchanans to Awaiti Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	7.21	8.11	8.25	1.04	1
12646	Waihou River Left Bank	Buchanans to Awaiti Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	7.22	8.12	8.42	1.20	1
12647	Waihou River Left Bank	Buchanans to Awaiti Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	7.22	8.12	8.34	1.12	1
12648	Waihou River Left Bank	Buchanans to Awaiti Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	7.24	8.14	8.45	1.21	1
12649	Waihou River Left Bank	Buchanans to Awaiti Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	7.25	8.15	8.43	1.19	1
12650	Waihou River Left Bank	Buchanans to Awaiti Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1048	7.26	8.16	8.33	1.07	1
12651	Waihou River Left Bank	Buchanans to Awaiti Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1048	7.27	8.17	8.53	1.27	1
12652	Waihou River Left Bank	Buchanans to Awaiti Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1048	7.28	8.18	7.96	0.68	2
12653	Waihou River Left Bank	Buchanans to Awaiti Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1048	7.31	8.21	7.98	0.70	2
12654	Waihou River Left Bank	Buchanans to Awaiti Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1048	7.32	8.22	8.37	1.05	1
12655	Waihou River Left Bank	Buchanans to Awaiti Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1048	7.32	8.22	8.53	1.21	1
12656	Waihou River Left Bank	Buchanans to Awaiti Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1048	7.32	8.22	8.46	1.14	1
12657	Waihou River Left Bank	Buchanans to Awaiti Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1048	7.35	8.25	8.63	1.28	1
12658	Waihou River Left Bank	Buchanans to Awaiti Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1048	7.36	8.26	8.56	1.21	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12659	Waihou River Left Bank	Buchanans to Awaiti Left SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1048	7.37	8.27	8.59	1.22	1
12660	Waihou River Left Bank	Buchanans to Awaiti Left SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1048	7.37	8.27	8.69	1.32	1
12661	Waihou River Left Bank	Buchanans to Awaiti Left SB 34	Stopbank Link	3,400	1% AEP	0.90	1965	1048	7.40	8.30	8.77	1.39	1
12662	Waihou River Left Bank	Buchanans to Awaiti Left SB 35	Stopbank Link	3,500	1% AEP	0.90	1965	1048	7.41	8.31	8.84	1.43	1
12663	Waihou River Left Bank	Buchanans to Awaiti Left SB 36	Stopbank Link	3,600	1% AEP	0.90	1965	1048	7.51	8.41	8.43	0.93	1
12664	Waihou River Left Bank	Buchanans to Awaiti Left SB 37	Stopbank Link	3,700	1% AEP	0.90	1965	1048	7.52	8.42	8.72	1.21	1
12665	Waihou River Left Bank	Buchanans to Awaiti Left SB 38	Stopbank Link	3,800	1% AEP	0.90	1965	1048	7.52	8.42	8.85	1.32	1
12666	Waihou River Left Bank	Buchanans to Awaiti Left SB 39	Stopbank Link	3,900	1% AEP	0.90	1965	1048	7.53	8.43	8.85	1.31	1
12667	Waihou River Left Bank	Buchanans to Awaiti Left SB 40	Stopbank Link	4,000	1% AEP	0.90	1965	1048	7.53	8.43	8.72	1.19	1
12668	Waihou River Left Bank	Buchanans to Awaiti Left SB 41	Stopbank Link	4,100	1% AEP	0.90	1965	1048	7.54	8.44	8.09	0.55	2
12669	Waihou River Left Bank	Buchanans to Awaiti Left SB 42	Stopbank Link	4,180	1% AEP	0.90	1965	1048	7.55	8.45			4
34000	Waihou River Left Bank	Buchanans to Awaiti Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	6.95	7.85			4
12670	Waihou River Left Bank	Tirohia Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	7.71	8.61	9.02	1.31	1
12671	Waihou River Left Bank	Tirohia Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	7.72	8.62	9.11	1.40	1
12672	Waihou River Left Bank	Tirohia Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	7.73	8.63	9.06	1.33	1
12673	Waihou River Left Bank	Tirohia Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	7.78	8.68	8.66	0.88	2
12674	Waihou River Left Bank	Tirohia Left SB 05	Stopbank Link	460	1% AEP	0.90	1965	1048	7.79	8.69	8.98	1.20	1
34001	Waihou River Left Bank	Tirohia Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	7.71	8.61	9.46	1.76	1
12763	Waihou River Left Bank	Tirohia to Ahikope Left SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	8.10	9.00	7.95	-0.13	5
12764	Waihou River Left Bank	Tirohia to Ahikope Left SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	8.11	9.01	9.20	1.10	1
12765	Waihou River Left Bank	Tirohia to Ahikope Left SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	8.13	9.03	9.09	0.98	1
12766	Waihou River Left Bank	Tirohia to Ahikope Left SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	8.14	9.04	9.30	1.16	1
12767	Waihou River Left Bank	Tirohia to Ahikope Left SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	8.17	9.07	9.32	1.17	1
12768	Waihou River Left Bank	Tirohia to Ahikope Left SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	8.17	9.07	9.37	1.20	1
12769	Waihou River Left Bank	Tirohia to Ahikope Left SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	8.18	9.08	9.39	1.21	1
12770	Waihou River Left Bank	Tirohia to Ahikope Left SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	8.22	9.12	9.35	1.14	1
12771	Waihou River Left Bank	Tirohia to Ahikope Left SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	8.25	9.15	9.37	1.15	1
12772	Waihou River Left Bank	Tirohia to Ahikope Left SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	8.25	9.15	9.49	1.24	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12773	Waihou River Left Bank	Tirohia to Ahikope Left SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	8.25	9.15	9.46	1.21	1
12774	Waihou River Left Bank	Tirohia to Ahikope Left SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	8.27	9.17	9.33	1.07	1
12775	Waihou River Left Bank	Tirohia to Ahikope Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	8.28	9.18	9.20	0.93	1
12776	Waihou River Left Bank	Tirohia to Ahikope Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	8.29	9.19	9.36	1.07	1
12777	Waihou River Left Bank	Tirohia to Ahikope Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	8.29	9.19	9.34	1.05	1
12778	Waihou River Left Bank	Tirohia to Ahikope Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	8.30	9.20	9.24	0.94	1
12779	Waihou River Left Bank	Tirohia to Ahikope Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	8.30	9.20	9.45	1.15	1
12780	Waihou River Left Bank	Tirohia to Ahikope Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	8.30	9.20	9.36	1.06	1
12781	Waihou River Left Bank	Tirohia to Ahikope Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	8.44	9.34	9.49	1.08	1
12782	Waihou River Left Bank	Tirohia to Ahikope Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	8.44	9.34	9.46	1.02	1
12783	Waihou River Left Bank	Tirohia to Ahikope Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	8.44	9.34	9.52	1.08	1
12784	Waihou River Left Bank	Tirohia to Ahikope Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	8.44	9.34	9.59	1.15	1
12785	Waihou River Left Bank	Tirohia to Ahikope Left SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1048	8.45	9.35	9.59	1.14	1
12786	Waihou River Left Bank	Tirohia to Ahikope Left SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1048	8.45	9.35	9.59	1.14	1
12787	Waihou River Left Bank	Tirohia to Ahikope Left SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1048	8.46	9.36	9.79	1.34	1
12788	Waihou River Left Bank	Tirohia to Ahikope Left SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1048	8.47	9.37	9.71	1.24	1
12789	Waihou River Left Bank	Tirohia to Ahikope Left SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1048	8.49	9.39	9.73	1.25	1
12790	Waihou River Left Bank	Tirohia to Ahikope Left SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1048	8.50	9.40	9.58	1.09	1
12791	Waihou River Left Bank	Tirohia to Ahikope Left SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1048	8.52	9.42	9.63	1.13	1
12792	Waihou River Left Bank	Tirohia to Ahikope Left SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1048	8.52	9.42	9.77	1.25	1
12793	Waihou River Left Bank	Tirohia to Ahikope Left SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1048	8.52	9.42	9.65	1.13	1
12794	Waihou River Left Bank	Tirohia to Ahikope Left SB 32	Stopbank Link	3,200	1% AEP	0.90	2008/WH	714	8.58	9.48	9.69	1.18	1
12795	Waihou River Left Bank	Tirohia to Ahikope Left SB 33	Stopbank Link	3,300	1% AEP	0.90	2008/WH	711	8.58	9.48	9.68	1.10	1
12796	Waihou River Left Bank	Tirohia to Ahikope Left SB 34	Stopbank Link	3,400	1% AEP	0.90	2008/WH	709	8.58	9.48	9.61	1.03	1
12797	Waihou River Left Bank	Tirohia to Ahikope Left SB 35	Stopbank Link	3,500	1% AEP	0.90	1965	1048	8.68	9.58	9.69	1.05	1
12798	Waihou River Left Bank	Tirohia to Ahikope Left SB 36	Stopbank Link	3,600	1% AEP	0.90	1965	1048	8.68	9.58	9.66	0.98	1
12799	Waihou River Left Bank	Tirohia to Ahikope Left SB 37	Stopbank Link	3,700	1% AEP	0.90	1965	1048	8.68	9.58	9.66	0.98	1
12800	Waihou River Left Bank	Tirohia to Ahikope Left SB 38	Stopbank Link	3,800	1% AEP	0.90	1965	1048	8.69	9.59	9.71	1.03	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12801	Waihou River Left Bank	Tirohia to Ahikope Left SB 39	Stopbank Link	3,900	1% AEP	0.90	1965	1048	8.69	9.59	9.85	1.16	1
12802	Waihou River Left Bank	Tirohia to Ahikope Left SB 40	Stopbank Link	4,000	1% AEP	0.90	1965	1048	8.70	9.60	9.82	1.12	1
12803	Waihou River Left Bank	Tirohia to Ahikope Left SB 41	Stopbank Link	4,100	1% AEP	0.90	1965	1048	8.71	9.61	9.87	1.17	1
12804	Waihou River Left Bank	Tirohia to Ahikope Left SB 42	Stopbank Link	4,200	1% AEP	0.90	1965	1048	8.76	9.66	10.08	1.32	1
12805	Waihou River Left Bank	Tirohia to Ahikope Left SB 43	Stopbank Link	4,300	1% AEP	0.90	1965	1048	8.77	9.67	10.12	1.36	1
12806	Waihou River Left Bank	Tirohia to Ahikope Left SB 44	Stopbank Link	4,400	1% AEP	0.90	1965	1048	8.78	9.68	10.33	1.55	1
12807	Waihou River Left Bank	Tirohia to Ahikope Left SB 45	Stopbank Link	4,500	1% AEP	0.90	1965	1048	8.80	9.70	10.34	1.56	1
12808	Waihou River Left Bank	Tirohia to Ahikope Left SB 46	Stopbank Link	4,600	1% AEP	0.90	1965	1048	8.81	9.71	10.42	1.62	1
12809	Waihou River Left Bank	Tirohia to Ahikope Left SB 47	Stopbank Link	4,700	1% AEP	0.90	1965	1048	8.82	9.72	10.41	1.59	1
12810	Waihou River Left Bank	Tirohia to Ahikope Left SB 48	Stopbank Link	4,800	1% AEP	0.90	1965	1048	8.84	9.74	10.28	1.45	1
12811	Waihou River Left Bank	Tirohia to Ahikope Left SB 49	Stopbank Link	4,900	1% AEP	0.90	1965	1048	8.85	9.75	9.87	1.02	1
12812	Waihou River Left Bank	Tirohia to Ahikope Left SB 50	Stopbank Link	5,000	1% AEP	0.90	1965	1048	8.87	9.77	10.25	1.39	1
12813	Waihou River Left Bank	Tirohia to Ahikope Left SB 51	Stopbank Link	5,100	1% AEP	0.90	1965	1048	8.89	9.79	10.18	1.30	1
12814	Waihou River Left Bank	Tirohia to Ahikope Left SB 52	Stopbank Link	5,200	1% AEP	0.90	2008/WH	677	8.90	9.80	10.10	1.21	1
12815	Waihou River Left Bank	Tirohia to Ahikope Left SB 53	Stopbank Link	5,300	1% AEP	0.90	2008/WH	677	8.96	9.86	10.07	1.11	1
12816	Waihou River Left Bank	Tirohia to Ahikope Left SB 54	Stopbank Link	5,400	1% AEP	0.90	2008/WH	678	9.01	9.91	9.77	0.77	2
12817	Waihou River Left Bank	Tirohia to Ahikope Left SB 55	Stopbank Link	5,500	1% AEP	0.90	2008/WH	678	9.04	9.94	9.82	0.81	2
12818	Waihou River Left Bank	Tirohia to Ahikope Left SB 56	Stopbank Link	5,600	1% AEP	0.90	2008/WH	679	9.10	10.00	9.86	0.78	2
12819	Waihou River Left Bank	Tirohia to Ahikope Left SB 57	Stopbank Link	5,700	1% AEP	0.90	2008/WH	679	9.10	10.00	10.19	1.09	1
12820	Waihou River Left Bank	Tirohia to Ahikope Left SB 58	Stopbank Link	5,800	1% AEP	0.90	2008/WH	680	9.11	10.01	9.93	0.82	2
12821	Waihou River Left Bank	Tirohia to Ahikope Left SB 59	Stopbank Link	5,900	1% AEP	0.90	2008/WH	681	9.11	10.01	9.88	0.77	2
12822	Waihou River Left Bank	Tirohia to Ahikope Left SB 60	Stopbank Link	6,000	1% AEP	0.90	2008/WH	682	9.11	10.01	10.24	1.13	1
12823	Waihou River Left Bank	Tirohia to Ahikope Left SB 61	Stopbank Link	6,100	1% AEP	0.90	2008/WH	682	9.11	10.01	10.29	1.18	1
12824	Waihou River Left Bank	Tirohia to Ahikope Left SB 62	Stopbank Link	6,200	1% AEP	0.90	2008/WH	683	9.11	10.01	10.05	0.94	1
12825	Waihou River Left Bank	Tirohia to Ahikope Left SB 63	Stopbank Link	6,300	1% AEP	0.90	2008/WH	683	9.12	10.02	10.29	1.17	1
12826	Waihou River Left Bank	Tirohia to Ahikope Left SB 64	Stopbank Link	6,400	1% AEP	0.90	2008/WH	684	9.12	10.02	10.40	1.28	1
12827	Waihou River Left Bank	Tirohia to Ahikope Left SB 65	Stopbank Link	6,500	1% AEP	0.90	2008/WH	685	9.12	10.02	10.31	1.19	1
12828	Waihou River Left Bank	Tirohia to Ahikope Left SB 66	Stopbank Link	6,600	1% AEP	0.90	2008/WH	685	9.12	10.02	10.08	0.96	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12829	Waihou River Left Bank	Tirohia to Ahikope Left SB 67	Stopbank Link	6,700	1% AEP	0.90	2008/WH	685	9.12	10.02	10.04	0.92	1
33842	Waihou River Left Bank	Tirohia to Ahikope Left SB 68	Stopbank Link	6,800	1% AEP	0.90	2008/WH	686	9.13	10.03	10.16	1.03	1
33843	Waihou River Left Bank	Tirohia to Ahikope Left SB 69	Stopbank Link	6,809	1% AEP	0.90	2008/WH	686	9.13	10.03			4
34067	Waihou River Left Bank	Tirohia to Ahikope Left SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	8.08	8.98			4
12830	Waihou River Left Bank	Ahikope to Strange Road Left SB 01	Stopbank Link	100	1% AEP	0.90	2008/WH	686	9.13	10.03	10.25	1.12	1
12831	Waihou River Left Bank	Ahikope to Strange Road Left SB 02	Stopbank Link	200	1% AEP	0.90	2008/WH	686	9.13	10.03	10.19	1.06	1
12832	Waihou River Left Bank	Ahikope to Strange Road Left SB 03	Stopbank Link	300	1% AEP	0.90	2008/WH	687	9.13	10.03	10.38	1.25	1
12833	Waihou River Left Bank	Ahikope to Strange Road Left SB 04	Stopbank Link	400	1% AEP	0.90	2008/WH	688	9.14	10.04	10.22	1.09	1
12834	Waihou River Left Bank	Ahikope to Strange Road Left SB 05	Stopbank Link	500	1% AEP	0.90	2008/WH	688	9.14	10.04	10.18	1.04	1
12835	Waihou River Left Bank	Ahikope to Strange Road Left SB 06	Stopbank Link	600	1% AEP	0.90	2008/WH	689	9.15	10.05	10.27	1.13	1
12836	Waihou River Left Bank	Ahikope to Strange Road Left SB 07	Stopbank Link	700	1% AEP	0.90	2008/WH	691	9.17	10.07	10.29	1.14	1
12837	Waihou River Left Bank	Ahikope to Strange Road Left SB 08	Stopbank Link	800	1% AEP	0.90	2008/WH	692	9.17	10.07	10.16	0.99	1
12838	Waihou River Left Bank	Ahikope to Strange Road Left SB 09	Stopbank Link	900	1% AEP	0.90	2008/WH	693	9.18	10.08	10.25	1.08	1
12839	Waihou River Left Bank	Ahikope to Strange Road Left SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/WH	693	9.19	10.09	10.37	1.18	1
12840	Waihou River Left Bank	Ahikope to Strange Road Left SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/WH	694	9.19	10.09	10.16	0.97	1
12841	Waihou River Left Bank	Ahikope to Strange Road Left SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/WH	694	9.20	10.10	10.34	1.15	1
12842	Waihou River Left Bank	Ahikope to Strange Road Left SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	9.22	10.12	10.39	1.17	1
12843	Waihou River Left Bank	Ahikope to Strange Road Left SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	9.25	10.15	10.14	0.90	2
12844	Waihou River Left Bank	Ahikope to Strange Road Left SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	9.27	10.17	10.23	0.98	1
12845	Waihou River Left Bank	Ahikope to Strange Road Left SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	9.29	10.19	10.52	1.24	1
12846	Waihou River Left Bank	Ahikope to Strange Road Left SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	9.43	10.33	10.72	1.42	1
12847	Waihou River Left Bank	Ahikope to Strange Road Left SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	9.44	10.34	10.52	1.09	1
12848	Waihou River Left Bank	Ahikope to Strange Road Left SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	9.44	10.34	10.79	1.35	1
12849	Waihou River Left Bank	Ahikope to Strange Road Left SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	9.44	10.34	10.63	1.19	1
12850	Waihou River Left Bank	Ahikope to Strange Road Left SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	9.56	10.46	10.67	1.13	1
12851	Waihou River Left Bank	Ahikope to Strange Road Left SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	9.57	10.47	10.80	1.24	1
12852	Waihou River Left Bank	Ahikope to Strange Road Left SB 23	Stopbank Link	2,230	1% AEP	0.90	1965	1048	9.92	10.82	11.06	1.49	1
34068	Waihou River Left Bank	Ahikope to Strange Road Left SB 00	Stopbank Link	0	1% AEP	0.90	2008/WH	686	9.13	10.03	10.42	1.29	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12854	Waihou River Left Bank	Strange Road (Section 1) Left SB 01	Stopbank Link	100	5% AEP	0.00	2008/WH	437	9.09	9.09	9.60	0.52	1
12855	Waihou River Left Bank	Strange Road (Section 1) Left SB 02	Stopbank Link	135	5% AEP	0.00	2008/WH	437	9.09	9.09	9.60	0.51	1
34069	Waihou River Left Bank	Strange Road (Section 1) Left SB 00	Stopbank Link	0	5% AEP	0.00	1965	566	8.95	8.95	10.31	1.36	1
12856	Waihou River Left Bank	Strange Road (Section 2) Left SB 01	Stopbank Link	100	5% AEP	0.00	2008/WH	437	9.12	9.12	9.64	0.53	1
12857	Waihou River Left Bank	Strange Road (Section 2) Left SB 02	Stopbank Link	200	5% AEP	0.00	2008/WH	437	9.13	9.13	9.52	0.40	1
12858	Waihou River Left Bank	Strange Road (Section 2) Left SB 03	Stopbank Link	300	5% AEP	0.00	2008/WH	437	9.18	9.18	9.66	0.53	1
12859	Waihou River Left Bank	Strange Road (Section 2) Left SB 04	Stopbank Link	400	5% AEP	0.00	2008/WH	437	9.20	9.20	9.69	0.50	1
33844	Waihou River Left Bank	Strange Road (Section 2) Left SB 05	Stopbank Link	459	5% AEP	0.00	2008/WH	437	9.21	9.22	9.85	0.65	1
59830	Waihou River Left Bank	Strange Road (Section 2) Left SB 00	Stopbank Link	0	5% AEP	0.00	2008/WH	437	9.10	9.11	9.70	0.60	1
12860	Waihou River Left Bank	Rowes East (Section 1) Left SB 01	Stopbank Link	100	20% AEP	0.00	2008/WH	295	8.51	8.51	9.11	0.60	1
12861	Waihou River Left Bank	Rowes East (Section 1) Left SB 02	Stopbank Link	200	20% AEP	0.00	2008/WH	295	8.52	8.52	8.93	0.41	1
12862	Waihou River Left Bank	Rowes East (Section 1) Left SB 03	Stopbank Link	300	20% AEP	0.00	2008/WH	295	8.54	8.54	8.88	0.35	1
12863	Waihou River Left Bank	Rowes East (Section 1) Left SB 04	Stopbank Link	400	20% AEP	0.00	2008/WH	295	8.61	8.62	9.07	0.53	1
12864	Waihou River Left Bank	Rowes East (Section 1) Left SB 05	Stopbank Link	420	20% AEP	0.00	2008/WH	295	8.61	8.62			4
34070	Waihou River Left Bank	Rowes East (Section 1) Left SB 00	Stopbank Link	0	20% AEP	0.00	2008/WH	295	8.51	8.51			4
12865	Waihou River Left Bank	Rowes East (Section 2) Left SB 01	Stopbank Link	100	20% AEP	0.00	2008/WH	296	8.69	8.69	9.38	0.70	1
12866	Waihou River Left Bank	Rowes East (Section 2) Left SB 02	Stopbank Link	200	20% AEP	0.00	2008/WH	296	8.69	8.70	9.25	0.56	1
12867	Waihou River Left Bank	Rowes East (Section 2) Left SB 03	Stopbank Link	219	20% AEP	0.00	2008/WH	296	8.69	8.70	9.43	0.74	1
59832	Waihou River Left Bank	Rowes East (Section 2) Left SB 00	Stopbank Link	0	20% AEP	0.00	2008/WH	296	8.67	8.67			4
-11	Waihou River Left Bank	Rowes East (Section 3) Left SB 24	Stopbank Link	2,381	20% AEP	0.00	2008/WH	271	9.88	9.88	10.72	0.85	1
-10	Waihou River Left Bank	Rowes East (Section 3) Left SB 23	Stopbank Link	2,300	20% AEP	0.00	2008/WH	271	9.87	9.87	10.68	0.81	1
-9	Waihou River Left Bank	Rowes East (Section 3) Left SB 22	Stopbank Link	2,200	20% AEP	0.00	2008/WH	271	9.86	9.86	10.40	0.59	1
12868	Waihou River Left Bank	Rowes East (Section 3) Left SB 01	Stopbank Link	100	20% AEP	0.00	2008/WH	296	9.09	9.09	8.04	-1.02	5
12869	Waihou River Left Bank	Rowes East (Section 3) Left SB 02	Stopbank Link	200	20% AEP	0.00	2008/WH	296	9.13	9.13	9.63	0.50	1
12870	Waihou River Left Bank	Rowes East (Section 3) Left SB 03	Stopbank Link	300	20% AEP	0.00	2008/WH	296	9.16	9.17	9.40	0.24	1
12871	Waihou River Left Bank	Rowes East (Section 3) Left SB 04	Stopbank Link	400	20% AEP	0.00	2008/WH	296	9.19	9.19	9.63	0.45	1
12872	Waihou River Left Bank	Rowes East (Section 3) Left SB 05	Stopbank Link	500	20% AEP	0.00	2008/WH	296	9.28	9.28	9.83	0.57	1
12873	Waihou River Left Bank	Rowes East (Section 3) Left SB 06	Stopbank Link	600	20% AEP	0.00	2008/WH	296	9.29	9.29	9.80	0.52	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12874	Waihou River Left Bank	Rowes East (Section 3) Left SB 07	Stopbank Link	700	20% AEP	0.00	2008/WH	296	9.31	9.32	9.80	0.51	1
12875	Waihou River Left Bank	Rowes East (Section 3) Left SB 08	Stopbank Link	800	20% AEP	0.00	2008/WH	296	9.35	9.35	9.95	0.62	1
12876	Waihou River Left Bank	Rowes East (Section 3) Left SB 09	Stopbank Link	900	20% AEP	0.00	2008/WH	296	9.38	9.38	10.03	0.66	1
12877	Waihou River Left Bank	Rowes East (Section 3) Left SB 10	Stopbank Link	1,000	20% AEP	0.00	2008/WH	296	9.40	9.40	9.74	0.34	1
12878	Waihou River Left Bank	Rowes East (Section 3) Left SB 11	Stopbank Link	1,100	20% AEP	0.00	2008/WH	296	9.42	9.42	9.68	0.27	1
12879	Waihou River Left Bank	Rowes East (Section 3) Left SB 12	Stopbank Link	1,200	20% AEP	0.00	2008/WH	296	9.43	9.43	9.66	0.24	1
12880	Waihou River Left Bank	Rowes East (Section 3) Left SB 13	Stopbank Link	1,300	20% AEP	0.00	2008/WH	296	9.45	9.45	10.16	0.73	1
12881	Waihou River Left Bank	Rowes East (Section 3) Left SB 14	Stopbank Link	1,400	20% AEP	0.00	2008/WH	281	9.65	9.65	10.09	0.45	1
12882	Waihou River Left Bank	Rowes East (Section 3) Left SB 15	Stopbank Link	1,500	20% AEP	0.00	2008/WH	280	9.66	9.66	10.20	0.54	1
12883	Waihou River Left Bank	Rowes East (Section 3) Left SB 16	Stopbank Link	1,600	20% AEP	0.00	2008/WH	272	9.77	9.77	10.42	0.66	1
12884	Waihou River Left Bank	Rowes East (Section 3) Left SB 17	Stopbank Link	1,700	20% AEP	0.00	2008/WH	272	9.77	9.77	10.46	0.69	1
12885	Waihou River Left Bank	Rowes East (Section 3) Left SB 18	Stopbank Link	1,800	20% AEP	0.00	2008/WH	272	9.80	9.80	10.55	0.75	1
33867	Waihou River Left Bank	Rowes East (Section 3) Left SB 19	Stopbank Link	1,900	20% AEP	0.00	2008/WH	272	9.80	9.80	10.58	0.78	1
33868	Waihou River Left Bank	Rowes East (Section 3) Left SB 20	Stopbank Link	2,000	20% AEP	0.00	2008/WH	272	9.81	9.81	10.41	0.60	1
33869	Waihou River Left Bank	Rowes East (Section 3) Left SB 21	Stopbank Link	2,100	20% AEP	0.00	2008/WH	272	9.81	9.81	10.48	0.67	1
59831	Waihou River Left Bank	Rowes East (Section 3) Left SB 00	Stopbank Link	0	20% AEP	0.00	2008/WH	296	9.06	9.06	7.39	-1.67	5
12886	Waihou River Left Bank	Stanley Road Left SB 01	Stopbank Link	100	5% AEP	0.00	2008/WH	414	10.61	10.61	11.25	0.65	1
12887	Waihou River Left Bank	Stanley Road Left SB 02	Stopbank Link	190	5% AEP	0.00	2008/WH	414	10.61	10.61	11.04	0.43	1
34071	Waihou River Left Bank	Stanley Road Left SB 00	Stopbank Link	0	5% AEP	0.00	2008/WH	414	10.61	10.61	11.11	0.51	1
12933	Waihou River Left Bank	Suburban Outlet Right SB 01	Stopbank Link	100	10% AEP	0.00	2008/WH	336	10.37	10.37	9.95	-0.42	5
12934	Waihou River Left Bank	Suburban Outlet Right SB 02	Stopbank Link	171	10% AEP	0.00	2008/WH	336	10.37	10.37	10.27	-0.10	5
34831	Waihou River Left Bank	Suburban Outlet Right SB 00	Stopbank Link	0	10% AEP	0.00	2008/WH	336	10.25	10.25	9.93	-0.44	5
10540	Waihou River Right Bank	Totara Foreshore SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.80	-0.20	5
10541	Waihou River Right Bank	Totara Foreshore SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.17	0.17	3
10542	Waihou River Right Bank	Totara Foreshore SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.18	0.18	3
10543	Waihou River Right Bank	Totara Foreshore SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.28	0.28	2
10544	Waihou River Right Bank	Totara Foreshore SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
10545	Waihou River Right Bank	Totara Foreshore SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.50	0.50	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10546	Waihou River Right Bank	Totara Foreshore SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.24	0.24	3
10547	Waihou River Right Bank	Totara Foreshore SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.18	0.18	3
10548	Waihou River Right Bank	Totara Foreshore SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10549	Waihou River Right Bank	Totara Foreshore SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.45	0.45	2
10550	Waihou River Right Bank	Totara Foreshore SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.42	0.42	2
10551	Waihou River Right Bank	Totara Foreshore SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
10552	Waihou River Right Bank	Totara Foreshore SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.28	0.28	2
10553	Waihou River Right Bank	Totara Foreshore SB 14	Stopbank Link	1,390	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.82	-0.18	5
34758	Waihou River Right Bank	Totara Foreshore SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.20	0.20	3
-69	Waihou River Right Bank	Waipapa to Kopu Right SB 16	Stopbank Link	1,505	1% AEP	0.50	2008/Tide	0	3.00	3.50			4
10571	Waihou River Right Bank	Waipapa to Kopu Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.71	-0.29	5
10572	Waihou River Right Bank	Waipapa to Kopu Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.92	-0.08	5
10573	Waihou River Right Bank	Waipapa to Kopu Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.15	0.15	3
10574	Waihou River Right Bank	Waipapa to Kopu Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.17	0.17	3
10575	Waihou River Right Bank	Waipapa to Kopu Right SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.12	0.12	4
10576	Waihou River Right Bank	Waipapa to Kopu Right SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.12	0.12	4
10577	Waihou River Right Bank	Waipapa to Kopu Right SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.27	0.27	2
10578	Waihou River Right Bank	Waipapa to Kopu Right SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.16	0.16	3
10579	Waihou River Right Bank	Waipapa to Kopu Right SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.78	-0.22	5
10580	Waihou River Right Bank	Waipapa to Kopu Right SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.13	0.13	3
10581	Waihou River Right Bank	Waipapa to Kopu Right SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.13	0.13	3
10582	Waihou River Right Bank	Waipapa to Kopu Right SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.95	-0.05	5
10583	Waihou River Right Bank	Waipapa to Kopu Right SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.90	-0.10	5
10584	Waihou River Right Bank	Waipapa to Kopu Right SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.93	-0.07	5
10585	Waihou River Right Bank	Waipapa to Kopu Right SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.98	-0.02	5
34007	Waihou River Right Bank	Waipapa to Kopu Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.02	0.02	4
10587	Waihou River Right Bank	Kopu Town Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.40	0.40	2
10588	Waihou River Right Bank	Kopu Town Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.50	0.50	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10589	Waihou River Right Bank	Kopu Town Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.42	0.42	2
10590	Waihou River Right Bank	Kopu Town Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
10591	Waihou River Right Bank	Kopu Town Right SB 05	Stopbank Link	480	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.25	0.25	2
34008	Waihou River Right Bank	Kopu Town Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.39	0.39	2
10593	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.99	-0.01	5
10594	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.63	0.63	1
10595	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.94	0.94	1
10596	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.72	0.72	1
10597	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.59	0.59	1
10598	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.37	0.37	2
10599	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.40	0.40	2
10600	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.35	0.35	2
10601	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
10602	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.62	0.62	1
10603	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.44	0.44	2
10604	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.38	0.38	2
10605	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 13	Stopbank Link	1,289	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
34027	Waihou River Right Bank	Kopu to Kirikiri Stream Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10701	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.02	0.02	4
10702	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.21	0.21	3
10703	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.48	0.48	2
10704	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10705	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.60	0.60	1
10706	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10707	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
10708	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
10709	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.25	0.25	2
10710	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
10711	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.70	0.70	1
10712	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.63	0.63	1
10713	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
10714	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.23	0.23	3
10715	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.39	0.39	2
10716	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.36	0.36	2
10717	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
10718	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 18	Stopbank Link	1,758	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
34028	Waihou River Right Bank	Warahoe Str - Matatoki Str Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.08	0.08	4
11817	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.05	0.05	4
11818	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.46	0.46	2
11819	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.23	0.23	3
11820	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.26	0.26	2
11821	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.12	0.12	4
11822	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.22	0.22	3
11823	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.34	0.34	2
11824	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
11825	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.49	0.49	2
11826	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.55	0.55	1
11827	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.40	0.40	2
11828	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
11829	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.53	0.53	1
11830	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.49	0.49	2
11831	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.21	0.21	3
11832	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.12	0.12	4
11833	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.10	0.10	4
11834	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.31	0.31	2
11835	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.37	0.37	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11836	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
11837	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 21	Stopbank Link	2,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.40	0.40	2
11838	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 22	Stopbank Link	2,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
11839	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 23	Stopbank Link	2,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.64	0.64	1
11840	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 24	Stopbank Link	2,392	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
34029	Waihou River Right Bank	Matatoki to Matatoki Road Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.88	-0.12	5
11842	Waihou River Right Bank	Matatoki Road to Puriri Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.29	0.29	2
11843	Waihou River Right Bank	Matatoki Road to Puriri Right SB 02	Stopbank Link	200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.57	0.57	1
11844	Waihou River Right Bank	Matatoki Road to Puriri Right SB 03	Stopbank Link	300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.74	0.74	1
11845	Waihou River Right Bank	Matatoki Road to Puriri Right SB 04	Stopbank Link	400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.58	0.58	1
11846	Waihou River Right Bank	Matatoki Road to Puriri Right SB 05	Stopbank Link	500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.73	0.73	1
11847	Waihou River Right Bank	Matatoki Road to Puriri Right SB 06	Stopbank Link	600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.90	0.90	1
11848	Waihou River Right Bank	Matatoki Road to Puriri Right SB 07	Stopbank Link	700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.15	0.15	3
11849	Waihou River Right Bank	Matatoki Road to Puriri Right SB 08	Stopbank Link	800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.20	0.20	3
11850	Waihou River Right Bank	Matatoki Road to Puriri Right SB 09	Stopbank Link	900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.26	0.26	2
11851	Waihou River Right Bank	Matatoki Road to Puriri Right SB 10	Stopbank Link	1,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.29	0.29	2
11852	Waihou River Right Bank	Matatoki Road to Puriri Right SB 11	Stopbank Link	1,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.25	0.25	2
11853	Waihou River Right Bank	Matatoki Road to Puriri Right SB 12	Stopbank Link	1,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.36	0.36	2
11854	Waihou River Right Bank	Matatoki Road to Puriri Right SB 13	Stopbank Link	1,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.30	0.30	2
11855	Waihou River Right Bank	Matatoki Road to Puriri Right SB 14	Stopbank Link	1,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.36	0.36	2
11856	Waihou River Right Bank	Matatoki Road to Puriri Right SB 15	Stopbank Link	1,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.37	0.37	2
11857	Waihou River Right Bank	Matatoki Road to Puriri Right SB 16	Stopbank Link	1,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.26	0.26	2
11858	Waihou River Right Bank	Matatoki Road to Puriri Right SB 17	Stopbank Link	1,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.15	0.15	3
11859	Waihou River Right Bank	Matatoki Road to Puriri Right SB 18	Stopbank Link	1,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.03	0.03	4
11860	Waihou River Right Bank	Matatoki Road to Puriri Right SB 19	Stopbank Link	1,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.94	-0.06	5
11861	Waihou River Right Bank	Matatoki Road to Puriri Right SB 20	Stopbank Link	2,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.94	-0.06	5
11862	Waihou River Right Bank	Matatoki Road to Puriri Right SB 21	Stopbank Link	2,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.84	-0.16	5
11863	Waihou River Right Bank	Matatoki Road to Puriri Right SB 22	Stopbank Link	2,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.85	-0.15	5

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11864	Waihou River Right Bank	Matatoki Road to Puriri Right SB 23	Stopbank Link	2,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.79	-0.21	5
11865	Waihou River Right Bank	Matatoki Road to Puriri Right SB 24	Stopbank Link	2,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.82	-0.18	5
11866	Waihou River Right Bank	Matatoki Road to Puriri Right SB 25	Stopbank Link	2,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.73	-0.27	5
11867	Waihou River Right Bank	Matatoki Road to Puriri Right SB 26	Stopbank Link	2,600	1% AEP	0.50	2008/Tide	0	3.00	3.50	2.97	-0.03	5
11868	Waihou River Right Bank	Matatoki Road to Puriri Right SB 27	Stopbank Link	2,700	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.23	0.23	3
11869	Waihou River Right Bank	Matatoki Road to Puriri Right SB 28	Stopbank Link	2,800	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.34	0.34	2
11870	Waihou River Right Bank	Matatoki Road to Puriri Right SB 29	Stopbank Link	2,900	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.28	0.28	2
11871	Waihou River Right Bank	Matatoki Road to Puriri Right SB 30	Stopbank Link	3,000	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.43	0.43	2
11872	Waihou River Right Bank	Matatoki Road to Puriri Right SB 31	Stopbank Link	3,100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.50	0.50	2
11873	Waihou River Right Bank	Matatoki Road to Puriri Right SB 32	Stopbank Link	3,200	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.52	0.52	1
11874	Waihou River Right Bank	Matatoki Road to Puriri Right SB 33	Stopbank Link	3,300	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.54	0.54	1
11875	Waihou River Right Bank	Matatoki Road to Puriri Right SB 34	Stopbank Link	3,400	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.51	0.51	1
11876	Waihou River Right Bank	Matatoki Road to Puriri Right SB 35	Stopbank Link	3,500	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.41	0.41	2
11877	Waihou River Right Bank	Matatoki Road to Puriri Right SB 36	Stopbank Link	3,552	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.34	0.34	2
34030	Waihou River Right Bank	Matatoki Road to Puriri Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.56	0.56	1
11939	Waihou River Right Bank	Puriri River to Omahu Str Right SB 01	Stopbank Link	100	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.49	0.49	2
11940	Waihou River Right Bank	Puriri River to Omahu Str Right SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1045	2.36	3.26	3.47	1.11	1
11941	Waihou River Right Bank	Puriri River to Omahu Str Right SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1044	2.36	3.26	3.44	1.08	1
11942	Waihou River Right Bank	Puriri River to Omahu Str Right SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	1043	2.37	3.27	3.62	1.25	1
11943	Waihou River Right Bank	Puriri River to Omahu Str Right SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	1044	2.37	3.27	3.65	1.27	1
11944	Waihou River Right Bank	Puriri River to Omahu Str Right SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	1045	2.38	3.28	3.26	0.89	2
11945	Waihou River Right Bank	Puriri River to Omahu Str Right SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	1045	2.38	3.28	3.34	0.97	1
11946	Waihou River Right Bank	Puriri River to Omahu Str Right SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	1046	2.38	3.28	3.86	1.48	1
11947	Waihou River Right Bank	Puriri River to Omahu Str Right SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	1047	2.38	3.28	3.58	1.19	1
11948	Waihou River Right Bank	Puriri River to Omahu Str Right SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	1047	2.39	3.29	3.06	0.67	2
11949	Waihou River Right Bank	Puriri River to Omahu Str Right SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1047	2.39	3.29	3.33	0.94	1
11950	Waihou River Right Bank	Puriri River to Omahu Str Right SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1048	2.39	3.29	3.50	1.11	1
11951	Waihou River Right Bank	Puriri River to Omahu Str Right SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1049	2.40	3.30	3.68	1.28	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
11952	Waihou River Right Bank	Puriri River to Omaha Str Right SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1050	2.40	3.30	3.71	1.31	1
11953	Waihou River Right Bank	Puriri River to Omaha Str Right SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1050	2.41	3.31	3.34	0.93	1
11954	Waihou River Right Bank	Puriri River to Omaha Str Right SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1048	2.42	3.32	3.38	0.96	1
11955	Waihou River Right Bank	Puriri River to Omaha Str Right SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1047	2.44	3.34	3.51	1.09	1
11956	Waihou River Right Bank	Puriri River to Omaha Str Right SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1046	2.45	3.35	3.21	0.76	2
11957	Waihou River Right Bank	Puriri River to Omaha Str Right SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1045	2.47	3.37	3.12	0.66	2
11958	Waihou River Right Bank	Puriri River to Omaha Str Right SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1044	2.48	3.38	3.40	0.92	1
11959	Waihou River Right Bank	Puriri River to Omaha Str Right SB 21	Stopbank Link	2,027	1% AEP	0.90	2008/OH	1043	2.49	3.39	3.48	1.00	1
34031	Waihou River Right Bank	Puriri River to Omaha Str Right SB 00	Stopbank Link	0	1% AEP	0.50	2008/Tide	0	3.00	3.50	3.36	0.36	2
12013	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1040	2.53	3.43	3.56	1.03	1
12014	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1039	2.54	3.44	3.64	1.11	1
12015	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1036	2.56	3.46	3.61	1.06	1
12016	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	1033	2.58	3.48	3.56	0.99	1
12017	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	1031	2.60	3.50	3.60	1.02	1
12018	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	1028	2.61	3.51	3.63	1.03	1
12019	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	1025	2.63	3.53	3.45	0.82	2
12020	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	1022	2.65	3.55	3.36	0.72	2
12021	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	1020	2.67	3.57	3.38	0.72	2
12022	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	1018	2.68	3.58	3.49	0.82	2
12023	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	1019	2.69	3.59	3.56	0.87	2
12024	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	1020	2.70	3.60	3.50	0.80	2
12025	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	1021	2.71	3.61	3.52	0.82	2
12026	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	1022	2.72	3.62	3.59	0.87	2
12027	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	1023	2.73	3.63	3.52	0.79	2
12028	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	1024	2.74	3.64	3.67	0.93	1
12029	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	1025	2.75	3.65	3.70	0.96	1
12030	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	1026	2.76	3.66	3.77	1.02	1
12031	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	1025	2.77	3.67	3.86	1.09	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12032	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	1025	2.78	3.68	3.88	1.10	1
12033	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	1024	2.79	3.69	3.74	0.96	1
12034	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	1023	2.81	3.71	3.81	1.01	1
12035	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	1022	2.82	3.72	3.66	0.85	2
12036	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	1021	2.83	3.73	3.77	0.94	1
12037	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	1020	2.84	3.74	3.69	0.85	2
12038	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 26	Stopbank Link	2,600	1% AEP	0.90	2008/OH	1019	2.85	3.75	3.52	0.67	2
12039	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 27	Stopbank Link	2,700	1% AEP	0.90	2008/OH	1019	2.86	3.76	3.47	0.61	2
12040	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 28	Stopbank Link	2,800	1% AEP	0.90	2008/OH	1018	2.88	3.78	3.53	0.66	2
12041	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 29	Stopbank Link	2,900	1% AEP	0.90	2008/OH	1017	2.89	3.79	3.59	0.71	2
12042	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 30	Stopbank Link	3,000	1% AEP	0.90	2008/OH	1017	2.91	3.81	3.62	0.72	2
12043	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 31	Stopbank Link	3,100	1% AEP	0.90	2008/OH	1016	2.92	3.82	3.67	0.75	2
12044	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 32	Stopbank Link	3,200	1% AEP	0.90	2008/OH	1015	2.94	3.84	3.74	0.81	2
12045	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 33	Stopbank Link	3,300	1% AEP	0.90	2008/OH	1015	2.95	3.85	3.66	0.72	2
12046	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 34	Stopbank Link	3,400	1% AEP	0.90	2008/OH	1016	2.99	3.89	3.80	0.83	2
12047	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 35	Stopbank Link	3,500	1% AEP	0.90	2008/OH	1017	3.03	3.93	3.86	0.85	2
12048	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 36	Stopbank Link	3,600	1% AEP	0.90	2008/OH	1019	3.09	3.99	3.88	0.79	2
12049	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 37	Stopbank Link	3,700	1% AEP	0.90	2008/OH	1020	3.13	4.03	3.83	0.73	2
12050	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 38	Stopbank Link	3,800	1% AEP	0.90	2008/OH	1021	3.16	4.06	4.00	0.87	2
12051	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 39	Stopbank Link	3,900	1% AEP	0.90	2008/OH	1022	3.18	4.08	4.14	0.98	1
12052	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 40	Stopbank Link	4,000	1% AEP	0.90	2008/OH	1023	3.21	4.11	4.12	0.91	1
12053	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 41	Stopbank Link	4,100	1% AEP	0.90	2008/OH	1026	3.22	4.12	4.17	0.96	1
12054	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 42	Stopbank Link	4,200	1% AEP	0.90	2008/OH	1029	3.24	4.14	4.19	0.95	1
12055	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 43	Stopbank Link	4,300	1% AEP	0.90	2008/OH	1031	3.26	4.16	4.25	1.01	1
12056	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 44	Stopbank Link	4,314	1% AEP	0.90	2008/OH	1031	3.26	4.16	4.20	0.94	1
34032	Waihou River Right Bank	Omahu Str to Wharepoa Right SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1041	2.51	3.41	3.51	1.00	1
12059	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	1034	3.27	4.17	4.40	1.14	1
12060	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	1035	3.29	4.19	4.24	0.95	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12061	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	1038	3.30	4.20	4.28	0.98	1
12062	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	1042	3.33	4.23	4.38	1.07	1
12063	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	1044	3.35	4.25	4.42	1.08	1
12064	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	1000	3.37	4.27	4.37	1.01	1
12065	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	954	3.38	4.28	4.38	1.01	1
12066	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	909	3.40	4.30	4.37	0.98	1
12067	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	838	3.42	4.32	4.44	1.02	1
12068	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	794	3.43	4.33	4.45	1.03	1
12069	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	709	3.46	4.36	4.46	1.03	1
12070	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	719	3.47	4.37	4.47	1.00	1
12071	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	728	3.47	4.37	4.35	0.88	2
12072	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	737	3.47	4.37	4.39	0.91	1
12073	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	744	3.48	4.38	4.52	1.05	1
12074	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	752	3.48	4.38	4.77	1.29	1
12075	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	759	3.48	4.38	4.77	1.28	1
12076	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	766	3.49	4.39	4.48	1.00	1
12077	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	773	3.49	4.39	4.48	0.99	1
12078	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 20	Stopbank Link	2,000	1% AEP	0.90	2008/OH	772	3.50	4.40	4.48	0.98	1
12079	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 21	Stopbank Link	2,100	1% AEP	0.90	2008/OH	770	3.51	4.41	4.45	0.95	1
12080	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 22	Stopbank Link	2,200	1% AEP	0.90	2008/OH	769	3.51	4.41	4.53	1.01	1
12081	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 23	Stopbank Link	2,300	1% AEP	0.90	2008/OH	767	3.52	4.42	4.63	1.11	1
12082	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 24	Stopbank Link	2,400	1% AEP	0.90	2008/OH	765	3.53	4.43	4.56	1.03	1
12083	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 25	Stopbank Link	2,500	1% AEP	0.90	2008/OH	764	3.54	4.44	4.54	1.00	1
12084	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 26	Stopbank Link	2,600	1% AEP	0.90	2008/OH	761	3.55	4.45	4.50	0.96	1
12085	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 27	Stopbank Link	2,700	1% AEP	0.90	2008/OH	759	3.56	4.46	4.58	1.03	1
12086	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 28	Stopbank Link	2,800	1% AEP	0.90	2008/OH	757	3.57	4.47	4.58	1.01	1
12087	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 29	Stopbank Link	2,900	1% AEP	0.90	2008/OH	743	3.58	4.48	4.56	0.99	1
12088	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 30	Stopbank Link	3,000	1% AEP	0.90	2008/OH	729	3.58	4.48	4.55	0.97	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12089	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 31	Stopbank Link	3,100	1% AEP	0.90	2008/OH	715	3.59	4.49	4.61	1.02	1
12090	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 32	Stopbank Link	3,187	1% AEP	0.90	2008/OH	700	3.60	4.50	4.42	0.82	2
34033	Waihou River Right Bank	Wharepoa to Hikutaia River Right SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	1031	3.26	4.16	4.25	0.99	1
12148	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 01	Stopbank Link	100	1% AEP	0.90	2008/OH	668	3.61	4.51	4.20	0.60	2
12149	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 02	Stopbank Link	200	1% AEP	0.90	2008/OH	653	3.62	4.52	4.73	1.11	1
12150	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 03	Stopbank Link	300	1% AEP	0.90	2008/OH	637	3.63	4.53	4.64	1.02	1
12151	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 04	Stopbank Link	400	1% AEP	0.90	2008/OH	622	3.64	4.54	4.69	1.06	1
12152	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 05	Stopbank Link	500	1% AEP	0.90	2008/OH	611	3.64	4.54	4.51	0.86	2
12153	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 06	Stopbank Link	600	1% AEP	0.90	2008/OH	611	3.65	4.55	4.41	0.76	2
12154	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 07	Stopbank Link	700	1% AEP	0.90	2008/OH	611	3.66	4.56	4.46	0.81	2
12155	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 08	Stopbank Link	800	1% AEP	0.90	2008/OH	610	3.66	4.56	4.23	0.57	2
12156	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 09	Stopbank Link	900	1% AEP	0.90	2008/OH	610	3.67	4.57	4.17	0.50	2
12157	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 10	Stopbank Link	1,000	1% AEP	0.90	2008/OH	610	3.68	4.58	4.29	0.62	2
12158	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 11	Stopbank Link	1,100	1% AEP	0.90	2008/OH	610	3.69	4.59	4.34	0.66	2
12159	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 12	Stopbank Link	1,200	1% AEP	0.90	2008/OH	610	3.69	4.59	4.37	0.68	2
12160	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 13	Stopbank Link	1,300	1% AEP	0.90	2008/OH	610	3.70	4.60	4.35	0.65	2
12161	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 14	Stopbank Link	1,400	1% AEP	0.90	2008/OH	632	3.71	4.61	4.34	0.63	2
12162	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 15	Stopbank Link	1,500	1% AEP	0.90	2008/OH	675	3.71	4.61	4.38	0.67	2
12163	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 16	Stopbank Link	1,600	1% AEP	0.90	2008/OH	719	3.72	4.62	4.49	0.77	2
12164	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 17	Stopbank Link	1,700	1% AEP	0.90	2008/OH	767	3.73	4.63	4.47	0.75	2
12165	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 18	Stopbank Link	1,800	1% AEP	0.90	2008/OH	811	3.73	4.63	4.43	0.70	2
12166	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 19	Stopbank Link	1,900	1% AEP	0.90	2008/OH	864	3.74	4.64	4.61	0.87	2
12167	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1558	3.75	4.65	4.44	0.69	2
12168	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1559	3.76	4.66	4.63	0.88	2
12169	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1560	3.79	4.69	4.69	0.91	1
12170	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1561	3.81	4.71	4.79	0.99	1
12171	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1562	3.84	4.74	4.82	0.98	1
12172	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1563	3.86	4.76	4.77	0.92	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12173	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1563	3.88	4.78	4.86	0.99	1
12174	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1564	3.91	4.81	4.89	0.99	1
12175	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1565	3.92	4.82	4.94	1.03	1
12176	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1565	3.95	4.85	5.11	1.18	1
12177	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1566	3.97	4.87	5.09	1.13	1
12178	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1567	3.99	4.89	5.11	1.13	1
12179	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1568	4.01	4.91	5.08	1.07	1
12180	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1569	4.03	4.93	5.14	1.11	1
12181	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 34	Stopbank Link	3,400	1% AEP	0.90	1965	1569	4.06	4.96	5.17	1.13	1
12182	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 35	Stopbank Link	3,500	1% AEP	0.90	1965	1570	4.08	4.98	5.23	1.17	1
12183	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 36	Stopbank Link	3,600	1% AEP	0.90	1965	1571	4.11	5.01	5.30	1.20	1
12184	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 37	Stopbank Link	3,700	1% AEP	0.90	1965	1574	4.17	5.07	5.32	1.17	1
12185	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 38	Stopbank Link	3,748	1% AEP	0.90	1965	1574	4.18	5.08	5.07	0.89	2
34034	Waihou River Right Bank	Hikutaia to Ferry Road Right SB 00	Stopbank Link	0	1% AEP	0.90	2008/OH	685	3.60	4.50	4.07	0.47	2
12186	Waihou River Right Bank	Ferry Road to Kurere Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1574	4.20	5.10	5.05	0.87	2
12187	Waihou River Right Bank	Ferry Road to Kurere Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1575	4.22	5.12	5.11	0.90	1
12188	Waihou River Right Bank	Ferry Road to Kurere Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1576	4.24	5.14	5.10	0.87	2
12189	Waihou River Right Bank	Ferry Road to Kurere Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1577	4.26	5.16	5.04	0.80	2
12190	Waihou River Right Bank	Ferry Road to Kurere Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1577	4.27	5.17	5.01	0.74	2
12191	Waihou River Right Bank	Ferry Road to Kurere Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1578	4.29	5.19	5.04	0.76	2
12192	Waihou River Right Bank	Ferry Road to Kurere Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1579	4.33	5.23	5.14	0.82	2
12193	Waihou River Right Bank	Ferry Road to Kurere Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1580	4.35	5.25	5.18	0.84	2
12194	Waihou River Right Bank	Ferry Road to Kurere Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1581	4.37	5.27	5.19	0.83	2
12195	Waihou River Right Bank	Ferry Road to Kurere Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1581	4.39	5.29	5.24	0.85	2
12196	Waihou River Right Bank	Ferry Road to Kurere Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1582	4.40	5.30	5.32	0.93	1
12197	Waihou River Right Bank	Ferry Road to Kurere Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1582	4.42	5.32	5.41	0.98	1
12198	Waihou River Right Bank	Ferry Road to Kurere Right SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1583	4.43	5.33	5.32	0.90	2
12199	Waihou River Right Bank	Ferry Road to Kurere Right SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1584	4.45	5.35	5.59	1.14	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12200	Waihou River Right Bank	Ferry Road to Kurere Right SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1584	4.47	5.37	5.69	1.24	1
12201	Waihou River Right Bank	Ferry Road to Kurere Right SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1585	4.48	5.38	5.73	1.26	1
12202	Waihou River Right Bank	Ferry Road to Kurere Right SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1585	4.49	5.39	5.86	1.38	1
12203	Waihou River Right Bank	Ferry Road to Kurere Right SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1595	4.77	5.67	5.82	1.06	1
12204	Waihou River Right Bank	Ferry Road to Kurere Right SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1596	4.79	5.69	5.74	0.96	1
12205	Waihou River Right Bank	Ferry Road to Kurere Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1596	4.81	5.71	5.90	1.11	1
12206	Waihou River Right Bank	Ferry Road to Kurere Right SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1597	4.84	5.74	5.97	1.16	1
12207	Waihou River Right Bank	Ferry Road to Kurere Right SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1598	4.86	5.76	5.98	1.13	1
12208	Waihou River Right Bank	Ferry Road to Kurere Right SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1599	4.88	5.78	6.00	1.13	1
12209	Waihou River Right Bank	Ferry Road to Kurere Right SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1600	4.90	5.80	5.96	1.06	1
12210	Waihou River Right Bank	Ferry Road to Kurere Right SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1600	4.92	5.82	5.86	0.95	1
12211	Waihou River Right Bank	Ferry Road to Kurere Right SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1601	4.94	5.84	5.82	0.88	2
12212	Waihou River Right Bank	Ferry Road to Kurere Right SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1602	4.96	5.86	5.69	0.74	2
12213	Waihou River Right Bank	Ferry Road to Kurere Right SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1602	4.98	5.88	5.71	0.75	2
12214	Waihou River Right Bank	Ferry Road to Kurere Right SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1603	5.00	5.90	5.67	0.68	2
12215	Waihou River Right Bank	Ferry Road to Kurere Right SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1604	5.02	5.92	5.65	0.64	2
12216	Waihou River Right Bank	Ferry Road to Kurere Right SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1604	5.04	5.94	5.95	0.93	1
12217	Waihou River Right Bank	Ferry Road to Kurere Right SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1605	5.06	5.96	6.02	0.98	1
12218	Waihou River Right Bank	Ferry Road to Kurere Right SB 33	Stopbank Link	3,300	1% AEP	0.90	1965	1606	5.08	5.98	6.01	0.94	1
12219	Waihou River Right Bank	Ferry Road to Kurere Right SB 34	Stopbank Link	3,400	1% AEP	0.90	1965	1607	5.10	6.00	6.19	1.11	1
12220	Waihou River Right Bank	Ferry Road to Kurere Right SB 35	Stopbank Link	3,500	1% AEP	0.90	1965	1607	5.12	6.02	6.14	1.03	1
12221	Waihou River Right Bank	Ferry Road to Kurere Right SB 36	Stopbank Link	3,600	1% AEP	0.90	1965	1608	5.13	6.03	6.20	1.09	1
12222	Waihou River Right Bank	Ferry Road to Kurere Right SB 37	Stopbank Link	3,700	1% AEP	0.90	1965	1609	5.15	6.05	6.18	1.03	1
12223	Waihou River Right Bank	Ferry Road to Kurere Right SB 38	Stopbank Link	3,800	1% AEP	0.90	1965	1609	5.18	6.08	6.13	0.97	1
12224	Waihou River Right Bank	Ferry Road to Kurere Right SB 39	Stopbank Link	3,900	1% AEP	0.90	1965	1610	5.20	6.10	6.25	1.06	1
12225	Waihou River Right Bank	Ferry Road to Kurere Right SB 40	Stopbank Link	4,000	1% AEP	0.90	1965	1611	5.22	6.12	6.39	1.17	1
12226	Waihou River Right Bank	Ferry Road to Kurere Right SB 41	Stopbank Link	4,100	1% AEP	0.90	1965	1612	5.24	6.14	6.42	1.19	1
12227	Waihou River Right Bank	Ferry Road to Kurere Right SB 42	Stopbank Link	4,200	1% AEP	0.90	1965	1616	5.36	6.26	6.37	1.05	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12228	Waihou River Right Bank	Ferry Road to Kurere Right SB 43	Stopbank Link	4,300	1% AEP	0.90	1965	1616	5.37	6.27	6.30	0.94	1
12229	Waihou River Right Bank	Ferry Road to Kurere Right SB 44	Stopbank Link	4,400	1% AEP	0.90	1965	1617	5.38	6.28	6.32	0.96	1
12230	Waihou River Right Bank	Ferry Road to Kurere Right SB 45	Stopbank Link	4,500	1% AEP	0.90	1965	1617	5.40	6.30	6.40	1.02	1
12231	Waihou River Right Bank	Ferry Road to Kurere Right SB 46	Stopbank Link	4,600	1% AEP	0.90	1965	1618	5.41	6.31	6.46	1.06	1
12232	Waihou River Right Bank	Ferry Road to Kurere Right SB 47	Stopbank Link	4,700	1% AEP	0.90	1965	1618	5.42	6.32	6.56	1.15	1
12233	Waihou River Right Bank	Ferry Road to Kurere Right SB 48	Stopbank Link	4,800	1% AEP	0.90	1965	1619	5.43	6.33	6.65	1.22	1
12234	Waihou River Right Bank	Ferry Road to Kurere Right SB 49	Stopbank Link	4,900	1% AEP	0.90	1965	1619	5.45	6.35	6.67	1.23	1
12235	Waihou River Right Bank	Ferry Road to Kurere Right SB 50	Stopbank Link	5,000	1% AEP	0.90	1965	1619	5.46	6.36	6.67	1.22	1
12236	Waihou River Right Bank	Ferry Road to Kurere Right SB 51	Stopbank Link	5,100	1% AEP	0.90	1965	1620	5.48	6.38	6.70	1.23	1
12237	Waihou River Right Bank	Ferry Road to Kurere Right SB 52	Stopbank Link	5,200	1% AEP	0.90	1965	1621	5.49	6.39	6.67	1.19	1
12238	Waihou River Right Bank	Ferry Road to Kurere Right SB 53	Stopbank Link	5,215	1% AEP	0.90	1965	1621	5.49	6.39	6.56	1.08	1
34035	Waihou River Right Bank	Ferry Road to Kurere Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1574	4.18	5.08	5.06	0.88	2
12239	Waihou River Right Bank	Kurere to Komata Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1621	5.51	6.41	6.67	1.17	1
12240	Waihou River Right Bank	Kurere to Komata Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1622	5.53	6.43	6.64	1.11	1
12241	Waihou River Right Bank	Kurere to Komata Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1623	5.56	6.46	6.31	0.75	2
12242	Waihou River Right Bank	Kurere to Komata Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1624	5.57	6.47	6.50	0.94	1
12243	Waihou River Right Bank	Kurere to Komata Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1624	5.59	6.49	6.31	0.72	2
12244	Waihou River Right Bank	Kurere to Komata Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1625	5.61	6.51	6.18	0.57	2
12245	Waihou River Right Bank	Kurere to Komata Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1626	5.63	6.53	6.61	0.99	1
12246	Waihou River Right Bank	Kurere to Komata Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1626	5.64	6.54	6.62	0.98	1
12247	Waihou River Right Bank	Kurere to Komata Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1627	5.67	6.57	6.63	0.98	1
12248	Waihou River Right Bank	Kurere to Komata Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1628	5.69	6.59	6.68	1.01	1
12249	Waihou River Right Bank	Kurere to Komata Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1628	5.71	6.61	6.70	0.99	1
12250	Waihou River Right Bank	Kurere to Komata Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1628	5.73	6.63	6.81	1.08	1
12251	Waihou River Right Bank	Kurere to Komata Right SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1629	5.76	6.66	6.77	1.01	1
12252	Waihou River Right Bank	Kurere to Komata Right SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1629	5.78	6.68	6.67	0.92	1
12253	Waihou River Right Bank	Kurere to Komata Right SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1630	5.80	6.70	6.71	0.91	1
12254	Waihou River Right Bank	Kurere to Komata Right SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1631	5.83	6.73	6.75	0.92	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12255	Waihou River Right Bank	Kurere to Komata Right SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1631	5.85	6.75	6.85	1.02	1
12256	Waihou River Right Bank	Kurere to Komata Right SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1631	5.86	6.76	6.93	1.08	1
12257	Waihou River Right Bank	Kurere to Komata Right SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1632	5.88	6.78	6.91	1.05	1
12258	Waihou River Right Bank	Kurere to Komata Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1632	5.90	6.80	7.12	1.23	1
12259	Waihou River Right Bank	Kurere to Komata Right SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1632	5.92	6.82	6.90	0.99	1
12260	Waihou River Right Bank	Kurere to Komata Right SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1633	5.93	6.83	6.81	0.89	2
12261	Waihou River Right Bank	Kurere to Komata Right SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1635	6.04	6.94	7.05	1.11	1
12262	Waihou River Right Bank	Kurere to Komata Right SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1636	6.06	6.96	7.10	1.05	1
12263	Waihou River Right Bank	Kurere to Komata Right SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1636	6.08	6.98	7.11	1.05	1
12264	Waihou River Right Bank	Kurere to Komata Right SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1636	6.09	6.99	7.17	1.08	1
12265	Waihou River Right Bank	Kurere to Komata Right SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1637	6.11	7.01	7.16	1.06	1
12266	Waihou River Right Bank	Kurere to Komata Right SB 28	Stopbank Link	2,743	1% AEP	0.90	1965	1637	6.11	7.01	7.12	1.02	1
34036	Waihou River Right Bank	Kurere to Komata Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1621	5.49	6.39	6.65	1.15	1
12372	Waihou River Right Bank	Komata River to Confluence Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1638	6.15	7.05	7.03	0.90	2
12373	Waihou River Right Bank	Komata River to Confluence Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1638	6.16	7.06	7.14	0.99	1
12374	Waihou River Right Bank	Komata River to Confluence Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1638	6.18	7.08	7.34	1.17	1
12375	Waihou River Right Bank	Komata River to Confluence Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1639	6.21	7.11	7.18	0.97	1
12376	Waihou River Right Bank	Komata River to Confluence Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1639	6.23	7.13	7.14	0.91	1
12377	Waihou River Right Bank	Komata River to Confluence Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1640	6.26	7.16	7.17	0.93	1
12378	Waihou River Right Bank	Komata River to Confluence Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1640	6.28	7.18	7.32	1.05	1
12379	Waihou River Right Bank	Komata River to Confluence Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1641	6.30	7.20	7.13	0.84	2
12380	Waihou River Right Bank	Komata River to Confluence Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1641	6.31	7.21	7.27	0.96	1
12381	Waihou River Right Bank	Komata River to Confluence Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1641	6.33	7.23	7.33	1.02	1
12382	Waihou River Right Bank	Komata River to Confluence Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1642	6.34	7.24	7.39	1.06	1
12383	Waihou River Right Bank	Komata River to Confluence Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1642	6.36	7.26	7.07	0.71	2
12384	Waihou River Right Bank	Komata River to Confluence Right SB 13	Stopbank Link	1,279	1% AEP	0.90	1965	1642	6.37	7.27	6.93	0.56	2
34037	Waihou River Right Bank	Komata River to Confluence Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1637	6.13	7.03			4
12675	Waihou River Right Bank	Confluence to Mill Road Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	6.49	7.39	7.00	0.51	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12676	Waihou River Right Bank	Confluence to Mill Road Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	6.50	7.40	7.12	0.62	2
12677	Waihou River Right Bank	Confluence to Mill Road Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	6.52	7.42	6.88	0.37	3
12678	Waihou River Right Bank	Confluence to Mill Road Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	6.53	7.43	7.09	0.57	2
12679	Waihou River Right Bank	Confluence to Mill Road Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	6.54	7.44	7.23	0.70	2
12680	Waihou River Right Bank	Confluence to Mill Road Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	6.55	7.45	7.37	0.83	2
12681	Waihou River Right Bank	Confluence to Mill Road Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	6.56	7.46	7.41	0.85	2
12682	Waihou River Right Bank	Confluence to Mill Road Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	6.57	7.47	7.41	0.84	2
12683	Waihou River Right Bank	Confluence to Mill Road Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	6.58	7.48	7.24	0.66	2
12684	Waihou River Right Bank	Confluence to Mill Road Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	6.63	7.53	7.29	0.70	2
12685	Waihou River Right Bank	Confluence to Mill Road Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	6.64	7.54	7.58	0.95	1
12686	Waihou River Right Bank	Confluence to Mill Road Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	6.65	7.55	7.50	0.85	2
12687	Waihou River Right Bank	Confluence to Mill Road Right SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	6.65	7.55	7.16	0.51	2
12688	Waihou River Right Bank	Confluence to Mill Road Right SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	6.66	7.56	7.40	0.75	2
12689	Waihou River Right Bank	Confluence to Mill Road Right SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	6.68	7.58	7.56	0.88	2
12690	Waihou River Right Bank	Confluence to Mill Road Right SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	6.69	7.59	7.55	0.86	2
12691	Waihou River Right Bank	Confluence to Mill Road Right SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	6.70	7.60	7.35	0.65	2
12692	Waihou River Right Bank	Confluence to Mill Road Right SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	6.71	7.61	7.47	0.76	2
12693	Waihou River Right Bank	Confluence to Mill Road Right SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	6.72	7.62	7.22	0.50	2
12694	Waihou River Right Bank	Confluence to Mill Road Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	6.73	7.63	7.15	0.42	3
12695	Waihou River Right Bank	Confluence to Mill Road Right SB 21	Stopbank Link	2,060	1% AEP	0.90	1965	1048	6.74	7.64	7.11	0.37	3
34038	Waihou River Right Bank	Confluence to Mill Road Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	6.48	7.38	7.15	0.67	2
12696	Waihou River Right Bank	Mill Road to Cadman Road Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	6.74	7.64	7.40	0.66	2
12697	Waihou River Right Bank	Mill Road to Cadman Road Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	6.75	7.65	7.56	0.82	2
12698	Waihou River Right Bank	Mill Road to Cadman Road Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	6.76	7.66	7.82	1.07	1
12699	Waihou River Right Bank	Mill Road to Cadman Road Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	6.76	7.66	7.52	0.77	2
12700	Waihou River Right Bank	Mill Road to Cadman Road Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	6.77	7.67	7.61	0.84	2
12701	Waihou River Right Bank	Mill Road to Cadman Road Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	6.78	7.68	7.71	0.94	1
12702	Waihou River Right Bank	Mill Road to Cadman Road Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	6.80	7.70	7.48	0.69	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12703	Waihou River Right Bank	Mill Road to Cadman Road Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	6.83	7.73	7.48	0.66	2
12704	Waihou River Right Bank	Mill Road to Cadman Road Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	6.84	7.74	7.56	0.72	2
12705	Waihou River Right Bank	Mill Road to Cadman Road Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	6.85	7.75	7.66	0.81	2
12706	Waihou River Right Bank	Mill Road to Cadman Road Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	6.85	7.75	7.66	0.81	2
12707	Waihou River Right Bank	Mill Road to Cadman Road Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	6.86	7.76	7.63	0.77	2
12708	Waihou River Right Bank	Mill Road to Cadman Road Right SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	6.86	7.76	7.92	1.06	1
12709	Waihou River Right Bank	Mill Road to Cadman Road Right SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	6.96	7.86	7.96	1.00	1
12710	Waihou River Right Bank	Mill Road to Cadman Road Right SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	6.97	7.87	7.90	0.93	1
12711	Waihou River Right Bank	Mill Road to Cadman Road Right SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	6.98	7.88	7.69	0.72	2
12712	Waihou River Right Bank	Mill Road to Cadman Road Right SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	6.98	7.88	7.97	1.00	1
12713	Waihou River Right Bank	Mill Road to Cadman Road Right SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	7.00	7.90	8.00	1.01	1
12714	Waihou River Right Bank	Mill Road to Cadman Road Right SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	7.00	7.90	7.91	0.91	1
12715	Waihou River Right Bank	Mill Road to Cadman Road Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	7.01	7.91	7.98	0.98	1
12716	Waihou River Right Bank	Mill Road to Cadman Road Right SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	7.02	7.92	7.90	0.89	2
12717	Waihou River Right Bank	Mill Road to Cadman Road Right SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	7.03	7.93	8.07	1.04	1
12718	Waihou River Right Bank	Mill Road to Cadman Road Right SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1048	7.04	7.94	7.97	0.93	1
12719	Waihou River Right Bank	Mill Road to Cadman Road Right SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1048	7.06	7.96	8.00	0.95	1
12720	Waihou River Right Bank	Mill Road to Cadman Road Right SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1048	7.07	7.97	8.03	0.96	1
12721	Waihou River Right Bank	Mill Road to Cadman Road Right SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1048	7.08	7.98	8.03	0.95	1
12722	Waihou River Right Bank	Mill Road to Cadman Road Right SB 27	Stopbank Link	2,700	1% AEP	0.90	1965	1048	7.09	7.99	7.90	0.81	2
12723	Waihou River Right Bank	Mill Road to Cadman Road Right SB 28	Stopbank Link	2,800	1% AEP	0.90	1965	1048	7.09	7.99	7.84	0.76	2
12724	Waihou River Right Bank	Mill Road to Cadman Road Right SB 29	Stopbank Link	2,900	1% AEP	0.90	1965	1048	7.10	8.00	8.01	0.91	1
12725	Waihou River Right Bank	Mill Road to Cadman Road Right SB 30	Stopbank Link	3,000	1% AEP	0.90	1965	1048	7.12	8.02	8.16	1.05	1
12726	Waihou River Right Bank	Mill Road to Cadman Road Right SB 31	Stopbank Link	3,100	1% AEP	0.90	1965	1048	7.12	8.02	7.94	0.81	2
12727	Waihou River Right Bank	Mill Road to Cadman Road Right SB 32	Stopbank Link	3,200	1% AEP	0.90	1965	1048	7.15	8.05	8.15	1.02	1
34039	Waihou River Right Bank	Mill Road to Cadman Road Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	6.74	7.64	7.39	0.65	2
12728	Waihou River Right Bank	Cadman Road to Voorends Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	7.15	8.05	8.15	1.01	1
12729	Waihou River Right Bank	Cadman Road to Voorends Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	7.16	8.06	7.93	0.77	2

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12730	Waihou River Right Bank	Cadman Road to Voorends Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	7.17	8.07	7.56	0.40	3
12731	Waihou River Right Bank	Cadman Road to Voorends Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	7.17	8.07	7.64	0.47	2
12732	Waihou River Right Bank	Cadman Road to Voorends Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	7.18	8.08	8.06	0.88	2
12733	Waihou River Right Bank	Cadman Road to Voorends Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	7.18	8.08	8.35	1.17	1
12734	Waihou River Right Bank	Cadman Road to Voorends Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	7.24	8.14	8.38	1.17	1
12735	Waihou River Right Bank	Cadman Road to Voorends Right SB 08	Stopbank Link	800	1% AEP	0.90	1965	1048	7.25	8.15	8.28	1.04	1
12736	Waihou River Right Bank	Cadman Road to Voorends Right SB 09	Stopbank Link	900	1% AEP	0.90	1965	1048	7.27	8.17	8.26	1.00	1
12737	Waihou River Right Bank	Cadman Road to Voorends Right SB 10	Stopbank Link	1,000	1% AEP	0.90	1965	1048	7.28	8.18	8.32	1.05	1
12738	Waihou River Right Bank	Cadman Road to Voorends Right SB 11	Stopbank Link	1,100	1% AEP	0.90	1965	1048	7.29	8.19	8.31	1.02	1
12739	Waihou River Right Bank	Cadman Road to Voorends Right SB 12	Stopbank Link	1,200	1% AEP	0.90	1965	1048	7.30	8.20	8.34	1.04	1
12740	Waihou River Right Bank	Cadman Road to Voorends Right SB 13	Stopbank Link	1,300	1% AEP	0.90	1965	1048	7.30	8.20	8.31	1.02	1
12741	Waihou River Right Bank	Cadman Road to Voorends Right SB 14	Stopbank Link	1,400	1% AEP	0.90	1965	1048	7.33	8.23	8.29	0.99	1
12742	Waihou River Right Bank	Cadman Road to Voorends Right SB 15	Stopbank Link	1,500	1% AEP	0.90	1965	1048	7.34	8.24	8.54	1.20	1
12743	Waihou River Right Bank	Cadman Road to Voorends Right SB 16	Stopbank Link	1,600	1% AEP	0.90	1965	1048	7.35	8.25	8.63	1.29	1
12744	Waihou River Right Bank	Cadman Road to Voorends Right SB 17	Stopbank Link	1,700	1% AEP	0.90	1965	1048	7.35	8.25	8.84	1.49	1
12745	Waihou River Right Bank	Cadman Road to Voorends Right SB 18	Stopbank Link	1,800	1% AEP	0.90	1965	1048	7.38	8.28	8.72	1.34	1
12746	Waihou River Right Bank	Cadman Road to Voorends Right SB 19	Stopbank Link	1,900	1% AEP	0.90	1965	1048	7.39	8.29	8.72	1.34	1
12747	Waihou River Right Bank	Cadman Road to Voorends Right SB 20	Stopbank Link	2,000	1% AEP	0.90	1965	1048	7.39	8.29	8.48	1.09	1
12748	Waihou River Right Bank	Cadman Road to Voorends Right SB 21	Stopbank Link	2,100	1% AEP	0.90	1965	1048	7.40	8.30	8.64	1.24	1
12749	Waihou River Right Bank	Cadman Road to Voorends Right SB 22	Stopbank Link	2,200	1% AEP	0.90	1965	1048	7.41	8.31	8.41	1.00	1
12750	Waihou River Right Bank	Cadman Road to Voorends Right SB 23	Stopbank Link	2,300	1% AEP	0.90	1965	1048	7.43	8.33	8.44	1.02	1
12751	Waihou River Right Bank	Cadman Road to Voorends Right SB 24	Stopbank Link	2,400	1% AEP	0.90	1965	1048	7.45	8.35	8.52	1.07	1
12752	Waihou River Right Bank	Cadman Road to Voorends Right SB 25	Stopbank Link	2,500	1% AEP	0.90	1965	1048	7.46	8.36	8.33	0.88	2
12753	Waihou River Right Bank	Cadman Road to Voorends Right SB 26	Stopbank Link	2,600	1% AEP	0.90	1965	1048	7.46	8.36	8.38	0.92	1
12754	Waihou River Right Bank	Cadman Road to Voorends Right SB 27	Stopbank Link	2,650	1% AEP	0.90	1965	1048	7.46	8.36	9.00	1.54	1
34040	Waihou River Right Bank	Cadman Road to Voorends Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	7.12	8.02	8.22	1.10	1
12755	Waihou River Right Bank	Tukaki Right SB 01	Stopbank Link	100	1% AEP	0.90	1965	1048	7.83	8.73	8.81	0.99	1
12756	Waihou River Right Bank	Tukaki Right SB 02	Stopbank Link	200	1% AEP	0.90	1965	1048	7.85	8.75	8.85	1.00	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12757	Waihou River Right Bank	Tukaki Right SB 03	Stopbank Link	300	1% AEP	0.90	1965	1048	7.87	8.77	8.90	1.03	1
12758	Waihou River Right Bank	Tukaki Right SB 04	Stopbank Link	400	1% AEP	0.90	1965	1048	7.89	8.79	8.62	0.74	2
12759	Waihou River Right Bank	Tukaki Right SB 05	Stopbank Link	500	1% AEP	0.90	1965	1048	7.92	8.82	8.80	0.91	1
12760	Waihou River Right Bank	Tukaki Right SB 06	Stopbank Link	600	1% AEP	0.90	1965	1048	7.94	8.84	8.67	0.74	2
12761	Waihou River Right Bank	Tukaki Right SB 07	Stopbank Link	700	1% AEP	0.90	1965	1048	7.96	8.86	8.75	0.80	2
12762	Waihou River Right Bank	Tukaki Right SB 08	Stopbank Link	730	1% AEP	0.90	1965	1048	7.97	8.87			4
34041	Waihou River Right Bank	Tukaki Right SB 00	Stopbank Link	0	1% AEP	0.90	1965	1048	7.81	8.71	9.99	2.17	1
12888	Waihou River Right Bank	Mangaiti Right SB 01	Stopbank Link	100	10% AEP	0.30	2008/WH	372	7.84	8.14	8.35	0.51	1
12889	Waihou River Right Bank	Mangaiti Right SB 02	Stopbank Link	200	10% AEP	0.30	2008/WH	372	7.84	8.14	7.94	0.10	3
12890	Waihou River Right Bank	Mangaiti Right SB 03	Stopbank Link	300	10% AEP	0.30	2008/WH	372	7.84	8.14	8.44	0.60	1
12891	Waihou River Right Bank	Mangaiti Right SB 04	Stopbank Link	400	10% AEP	0.30	2008/WH	372	7.86	8.16	8.47	0.62	1
12892	Waihou River Right Bank	Mangaiti Right SB 05	Stopbank Link	500	10% AEP	0.30	2008/WH	386	7.89	8.19	8.10	0.21	2
12893	Waihou River Right Bank	Mangaiti Right SB 06	Stopbank Link	600	10% AEP	0.30	2008/WH	386	7.89	8.19	8.32	0.43	1
12894	Waihou River Right Bank	Mangaiti Right SB 07	Stopbank Link	700	10% AEP	0.30	2008/WH	388	7.91	8.21	8.42	0.51	1
12895	Waihou River Right Bank	Mangaiti Right SB 08	Stopbank Link	800	10% AEP	0.30	2008/WH	388	7.92	8.22	8.42	0.51	1
12896	Waihou River Right Bank	Mangaiti Right SB 09	Stopbank Link	900	10% AEP	0.30	2008/WH	388	7.92	8.22	8.45	0.53	1
12897	Waihou River Right Bank	Mangaiti Right SB 10	Stopbank Link	1,000	10% AEP	0.30	2008/WH	389	7.92	8.22	8.28	0.36	1
12898	Waihou River Right Bank	Mangaiti Right SB 11	Stopbank Link	1,100	10% AEP	0.30	2008/WH	389	7.92	8.22	8.39	0.47	1
12899	Waihou River Right Bank	Mangaiti Right SB 12	Stopbank Link	1,200	10% AEP	0.30	2008/WH	390	7.94	8.24	8.38	0.46	1
12900	Waihou River Right Bank	Mangaiti Right SB 13	Stopbank Link	1,300	10% AEP	0.30	2008/WH	391	7.94	8.24	8.59	0.65	1
12901	Waihou River Right Bank	Mangaiti Right SB 14	Stopbank Link	1,400	10% AEP	0.30	2008/WH	393	7.97	8.27	8.66	0.71	1
12902	Waihou River Right Bank	Mangaiti Right SB 15	Stopbank Link	1,500	10% AEP	0.30	2008/WH	393	7.98	8.28	8.77	0.80	1
12903	Waihou River Right Bank	Mangaiti Right SB 16	Stopbank Link	1,600	10% AEP	0.30	2008/WH	394	8.00	8.30	8.57	0.58	1
12904	Waihou River Right Bank	Mangaiti Right SB 17	Stopbank Link	1,700	10% AEP	0.30	2008/WH	396	8.04	8.34	8.63	0.63	1
12905	Waihou River Right Bank	Mangaiti Right SB 18	Stopbank Link	1,800	10% AEP	0.30	2008/WH	397	8.04	8.34	8.80	0.76	1
12906	Waihou River Right Bank	Mangaiti Right SB 19	Stopbank Link	1,900	10% AEP	0.30	2008/WH	397	8.05	8.35	8.63	0.58	1
12907	Waihou River Right Bank	Mangaiti Right SB 20	Stopbank Link	2,000	10% AEP	0.30	2008/WH	397	8.05	8.35	8.64	0.59	1
12908	Waihou River Right Bank	Mangaiti Right SB 21	Stopbank Link	2,100	10% AEP	0.30	2008/WH	394	8.12	8.42	8.75	0.64	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12909	Waihou River Right Bank	Mangaiti Right SB 22	Stopbank Link	2,200	10% AEP	0.30	2008/WH	393	8.13	8.43	8.89	0.76	1
12910	Waihou River Right Bank	Mangaiti Right SB 23	Stopbank Link	2,300	10% AEP	0.30	2008/WH	392	8.13	8.43	8.79	0.66	1
12911	Waihou River Right Bank	Mangaiti Right SB 24	Stopbank Link	2,400	10% AEP	0.30	2008/WH	391	8.14	8.44	8.46	0.32	1
12912	Waihou River Right Bank	Mangaiti Right SB 25	Stopbank Link	2,500	10% AEP	0.30	2008/WH	373	8.26	8.56	8.49	0.26	2
12913	Waihou River Right Bank	Mangaiti Right SB 26	Stopbank Link	2,600	10% AEP	0.30	2008/WH	373	8.26	8.56	8.44	0.18	2
12914	Waihou River Right Bank	Mangaiti Right SB 27	Stopbank Link	2,700	10% AEP	0.30	2008/WH	371	8.28	8.58	8.47	0.21	2
12915	Waihou River Right Bank	Mangaiti Right SB 28	Stopbank Link	2,800	10% AEP	0.30	2008/WH	370	8.29	8.59	8.84	0.56	1
12916	Waihou River Right Bank	Mangaiti Right SB 29	Stopbank Link	2,900	10% AEP	0.30	2008/WH	369	8.29	8.59	9.00	0.71	1
33845	Waihou River Right Bank	Mangaiti Right SB 30	Stopbank Link	3,000	10% AEP	0.30	2008/WH	369	8.29	8.59	9.03	0.74	1
33846	Waihou River Right Bank	Mangaiti Right SB 31	Stopbank Link	3,088	10% AEP	0.30	2008/WH	369	8.29	8.59	9.12	0.83	1
34072	Waihou River Right Bank	Mangaiti Right SB 00	Stopbank Link	0	10% AEP	0.30	2008/WH	372	7.84	8.14			4
-31	Waihou River Right Bank	Mangaiti South D/S Right SB 06	Stopbank Link	537	43% AEP	0.00	2008/WH	217	7.79	7.79			4
12917	Waihou River Right Bank	Mangaiti South D/S Right SB 01	Stopbank Link	100	43% AEP	0.00	2008/WH	217	7.59	7.59	8.42	0.83	1
12918	Waihou River Right Bank	Mangaiti South D/S Right SB 02	Stopbank Link	200	43% AEP	0.00	2008/WH	217	7.62	7.63	8.37	0.77	1
12919	Waihou River Right Bank	Mangaiti South D/S Right SB 03	Stopbank Link	300	43% AEP	0.00	2008/WH	217	7.66	7.66	8.37	0.71	1
12921	Waihou River Right Bank	Mangaiti South D/S Right SB 04	Stopbank Link	400	43% AEP	0.00	2008/WH	217	7.68	7.68	8.30	0.64	1
12922	Waihou River Right Bank	Mangaiti South D/S Right SB 05	Stopbank Link	500	43% AEP	0.00	2008/WH	218	7.79	7.79	8.29	0.50	1
34073	Waihou River Right Bank	Mangaiti South D/S Right SB 00	Stopbank Link	0	43% AEP	0.00	2008/WH		7.59	7.59	8.80	1.21	1
12920	Waihou River Right Bank	Mangaiti South Upstream Right SB 00	Stopbank Link	0	43% AEP	0.00	2008/WH	218	8.11	8.11	9.36	1.25	1
12923	Waihou River Right Bank	Mangaiti South Upstream Right SB 01	Stopbank Link	100	43% AEP	0.00	2008/WH	218	8.12	8.12	8.51	0.40	1
12924	Waihou River Right Bank	Mangaiti South Upstream Right SB 02	Stopbank Link	200	43% AEP	0.00	2008/WH	218	8.14	8.14	8.69	0.57	1
12925	Waihou River Right Bank	Mangaiti South Upstream Right SB 03	Stopbank Link	300	43% AEP	0.00	2008/WH	218	8.17	8.17	8.86	0.69	1
12926	Waihou River Right Bank	Mangaiti South Upstream Right SB 04	Stopbank Link	400	43% AEP	0.00	2008/WH	218	8.28	8.29	8.77	0.56	1
12927	Waihou River Right Bank	Mangaiti South Upstream Right SB 05	Stopbank Link	500	43% AEP	0.00	2008/WH	218	8.30	8.30	8.46	0.35	1
12928	Waihou River Right Bank	Mangaiti South Upstream Right SB 06	Stopbank Link	600	43% AEP	0.00	2008/WH	218	8.32	8.32	8.67	0.37	1
12929	Waihou River Right Bank	Mangaiti South Upstream Right SB 07	Stopbank Link	700	43% AEP	0.00	2008/WH	218	8.33	8.33	8.65	0.32	1
12930	Waihou River Right Bank	Mangaiti South Upstream Right SB 08	Stopbank Link	800	43% AEP	0.00	2008/WH	219	8.35	8.35	8.84	0.50	1
12931	Waihou River Right Bank	Mangaiti South Upstream Right SB 09	Stopbank Link	900	43% AEP	0.00	2008/WH	219	8.40	8.40	8.92	0.52	1

Asset ID	Asset group	Description	Asset type	Chainage (m)	Design standard (AEP)	Design freeboard (m)	Design profile	Design discharge (m ³ /s)	Design flood level (m)	Design crest level (m)	Actual crest level (m)	Actual freeboard (m)	Performance grade
12932	Waihou River Right Bank	Mangaiti South Upstream Right SB 10	Stopbank Link	994	43% AEP	0.00	2008/WH	219	8.41	8.42	8.66	0.25	1