

A G E N D A

PAEROA RURAL DRAINAGE DISTRICT COMMITTEE MEETING

Thursday, 30 September 2021, 1.00pm

Council Office
Council Chambers
William Street
Paeroa



Membership

Committee Members:

His Worship the Mayor, D A Adams

M Peters
C Zydenbos
P Casey
T Hamilton

Council Rep:

Councillor P Buckthought

Councillor Rep (alternate):

Councillor R Garrett

Hauraki District Council staff:

A de Laborde - Group Manager – Service Delivery
J de Vos - Utilities Manager
B Stephens - Drainage Overseer
G Russell - Land Drainage Contractor
C Black - Council Secretary

Waikato Regional Council staff:

S Clark
A Munro

Delegations: Paeroa Rural Drainage Committee (PRDD)

Membership	Land Drainage Advisory Committee consisting of one Councillor (with an alternate councillor) and members as scheduled from each of the Drainage Areas with the Paeroa Rural Drainage District: <ul style="list-style-type: none">■ Two representatives of Komata North■ One representative of Opukeko■ Two representatives of Tirohia/Rotokohu
Meeting frequency	The first Thursday of the month - six monthly (dates to be confirmed).

The Council delegates to the Drainage Committee the following powers, duties and responsibilities:

- To make recommendations to the Council on all matters relating to Land Drainage within their respective Districts.
- To make recommendations on Council's operational and capital estimates for Council's Draft Long term Plan and Draft Annual Plans.
- To provide input to Land Drainage asset planning matters and Land Drainage rating reviews in their respective areas.
- To generally oversee and monitor the Council's annual work programmes within the nominated areas; and to assist as necessary or as appropriate in the implementation of approved programmes.
- To facilitate the flow of information between ratepayers and staff.



PAEROA RURAL DRAINAGE DISTRICT COMMITTEE

AGENDA

Thursday, 30 September 2021 – 1.00pm

Council Chamber, Hauraki House, William Street, Paeroa

Order of Business

Pages

1. Apologies
2. Declarations of Late Items
3. Confirmation: Paeroa Rural Drainage District Committee Minutes
– 01-04-21 – 2931425 **5**
4. Waikato Regional Council Update on Activities
5. Paeroa Rural Drainage District Activity Report for March - August 2021
Financial Report for the period 12 months to 30 June 2021 - 3037991 **8**
6. Member's feedback on drainage matters in their areas.

HAURAKI DISTRICT COUNCIL

PAEROA RURAL DRAINAGE DISTRICT COMMITTEE

MINUTES OF A MEETING OF THE PAEROA RURAL DRAINAGE DISTRICT COMMITTEE HELD IN THE COUNCIL CHAMBERS, WILLIAM STREET, PAEROA ON THURSDAY, 01 APRIL 2021 COMMENCING AT 1.00PM

PRESENT Messrs M Peters (Chairperson), P Casey (Deputy Chairperson), C Zydenbos, T Hamilton, Cr P Buckthought and Cr R Garrett

IN ATTENDANCE S Clark (WRC - Works Supervisor, Paeroa Team - Integrated Catchment Management), E J Wentzel (Utilities Manager), B Stephens (Drainage Overseer), G Russell (Land Drainage Contractor) and Ms C Black (Council Secretary)

APOLOGIES

There were no apologies.

LATE ITEMS

There were no late items.

CONFIRMATION: PAEROA RURAL DRAINAGE DISTRICT COMMITTEE MINUTES – 04-12-20 - 2868185

RESOLVED

THAT the minutes of the meeting of the Paeroa Rural Drainage District Committee held on 04 December 2020 be taken as read and confirmed.

PRDD21/01

Hamilton/Zydenbos

CARRIED

MATTERS ARISING FROM THE MINUTES

There were no matters raised.

Waikato Regional Council Update on Activities

WRC - Works Supervisor, Paeroa Team – Steve Clark reported on activities.

- Recently completed spraying toe drains.
- Will commence desilting of floodgates shortly.
- Wharf Street - youths have been opening floodgates. A block has been installed to stop this occurrence but it will let water out. Putting screens on so the gates can open completely.
- New switchboard at Mill Road no. 2 will be undertaken over the next 2 weeks. Tender for the Mill Road inlet for No. 1 and No. 2 is with the engineers at the present time.
- Peter Casey asked if there a rule to prevent flooding/flushing of the canals. Steve Clark responded, that if farmers believe it is of benefit, they can contact WRC to request this process happen every summer over a drought periods.
- Drought management meetings – members emphasised the need that farmers and ratepayers of the area need to be included in the meetings regarding drought management measures.

WRC Drought Management Meetings

Members requested the Committee be represented at the WRC Drought Management meetings.

RESOLVED

THAT ratepayers of the drought affected areas be represented by the Paeroa Rural Drainage District Committee at all Waikato Regional Council drought management meetings.

PRDD21/02

Peters/Zydenbos

CARRIEDIntroduction of Utilities Manager – EJ Wentzel and Land Drainage Contractor – Guy Russell

The Utilities Manager introduced himself and advised the Committee that he has taken over the area of Land Drainage under the auspice of Utilities. He also introduced Guy Russell to the Committee and explained that Guy has been contracted on a part time basis to assist in the management of Council's Land drainage network.

DRAINAGE ACTIVITY REPORT – FEBRUARY 2021 AND FINANCIAL REPORT FOR THE PERIOD 8 MONTHS TO 28 FEBRUARY 2021 - 2916344

The Drainage Overseer presented the district drainage activity report and financial report for the period 8 months to 28 February 2021.

RESOLVED

THAT the report be received.

PRDD21/03

Zydenbos/Casey

CARRIEDVegetation Control

Drain spraying for period November 2020 to February 2021 were as follows:

38.475kms (100%) of the Komata North Drains. There were no drains sprayed in the Opukeko area during this period and 19.335kms (67.54%) of the Tirohia Rotokohu drains.

Mechanical Cleaning

There were no drains machined cleaned in these area from November 2020 to February 2021.

Other works

Routine maintenance has been undertaken in all areas. Also routine inspections of floodgates, culverts and pump stations have been undertaken and cleared as required.

Pump Operation

Regular inspection runs were undertaken in this period. Pump running hours to the end of February 2021 totalled 16 (4%) in Komata North, 80 (19%) in Opukeko and 1367 (107%) in Tirohia Rotokohu.

Pump station Statistics (attached as Appendix A)

Pump activity has been low since August 2020.

Financials

There was nothing significant to comment other than the capital costs had been incorrectly allocated to the Tirohia Floodgates budget which will be corrected.

Capital

Tirohia North Drain floodgate is being replaced as it collapsed in 2020 following a large weather event. The cost estimates are being finalised but are expected to be in the region of \$35k.

Silt Build-up – Rotokohu Canal

The Chair advised that there was an extensive silt build up within the Rotokohu Canal. He also stressed that Koi carp are causing erosion to the banks.

MEMBERS' COMMENTS

The Chair again requested a copy of actuals 2019-20 of the Paeroa Rural Drainage District committee's total expenditure be made available to the Committee. Staff to make these available.

Koi carp – an application for funding to the Freshwater Fund has been sought by WRC in support of research to reduce Koi carp numbers.

The meeting closed at 2.11pm.

CONFIRMED

M Peters
Chairperson

30 September 2021

FOR INFORMATION | NGĀ MŌHIOTANGA



TO	Paeroa Rural drainage Committee
AUTHOR	Guy Russell Land Drainage Engineer
FILE REFERENCE	Document: 3037991 Appendix A: Pump running hours for 2020/21 Appendix B: Pump running hours for 2021/22 Appendix C: Financial statements to June 2021 Appendix D: Ngatea Rainfall figures
PORTFOLIO HOLDER/S	Councillor Buckthought Land drainage and flood protection portfolio
MEETING DATE	30 September 2021
SUBJECT	Paeroa Rural land drainage activity report, March 2021 to August 2021

SUMMARY | TE WHAKARĀPOPOTANGA

This Report covers drainage activities for the period March 2021 to August 2021 and includes end of 2020/21 financial year information.

Due to the dry conditions, there has been limited activity in the drainage area.

RECOMMENDATION | TE WHAIKUPU

THAT the report be received.

1 PURPOSE | TE ARONGA

The purpose of the report is to give the Committee an update on the operations and capital work pertaining to the Land Drainage and Flood Protection activity in the Paeroa Rural drainage area.

2 BACKGROUND | TE KŌRERO Ā MUA

Hauraki District Council provides infrastructure for the land drainage activity in four constituted drainage areas within its district. The land drainage service is provided to over 47,000 ha of highly productive pastoral land and the activity aims primarily to ensure the productive capability of the land. The land drainage network is comprised of stopbanks, floodgates, pump stations and land drains.

In general assets are classified as flood protection (primary) or drainage (secondary) assets. The Paeroa Rural drainage area consists of both flood protection assets and drainage assets that are the responsibility of Hauraki District Council.

3 Operational Activity

Vegetation Control

The drains had their second round of spraying in autumn. Details of the lengths of drains sprayed from March to May are:

Komata North:	34.07km
Opukeko:	8.69km
Tirohia-Rotokohu:	16.62km

No spraying has occurred yet in the 2021/22 year and normally commences in November.

Mechanical Cleaning

The mechanical cleaning programme for 2020/21 has been completed. The following drains have been cleaned since March:

Komata North:	Cross Drain, 600m
Opukeko:	Stocks Drain, 1200m

No drains have been cleaned in the 2021/22 year so far.

Other works

Routine maintenance and inspections of stopbanks, floodgates and culverts have been undertaken. Pumpstations have been checked to keep them operational and weed screens cleaned as necessary.

The two inverted syphons in the Tirohia-Rotokohu area have been checked and cleared as necessary.

A blockage has been removed from the Cadman Road drain.

Pump Operation

The summary of the pump running hours for the 2020/21 year is attached as Appendix A. All pumps were used significantly less than average over the full year except for Mill Road, pump

1. Overall for all of the pumps for the past year their use was at 89% of average and this follows the district wide trend for all of the pumps.

The pumps have had limited use so far in the 2021/22 year due to the lower than average rainfall we have been experiencing for some time. July total pump running hours were 27% of average and the August total figures were only 10% of average. The pump operation details so far this year are attached as Appendix B.

Bylaw Approvals

Bylaw approvals were granted in the period as follows:

Culverts: Nil
Other: Nil

Subdivisions Commented On

Subdivisions commented on during the period as follows:

Nil

Financials

The end of 2020/2021-year financial statements are shown in Appendix C. All areas were well within their budgets for the year.

Rainfall

Rainfall figures for Ngatea are attached as Appendix D. the figures show that rainfall for July was 62% of average and for August it was 64% of average. The low rainfall totals are continuing and have not been greater than average since November last year.

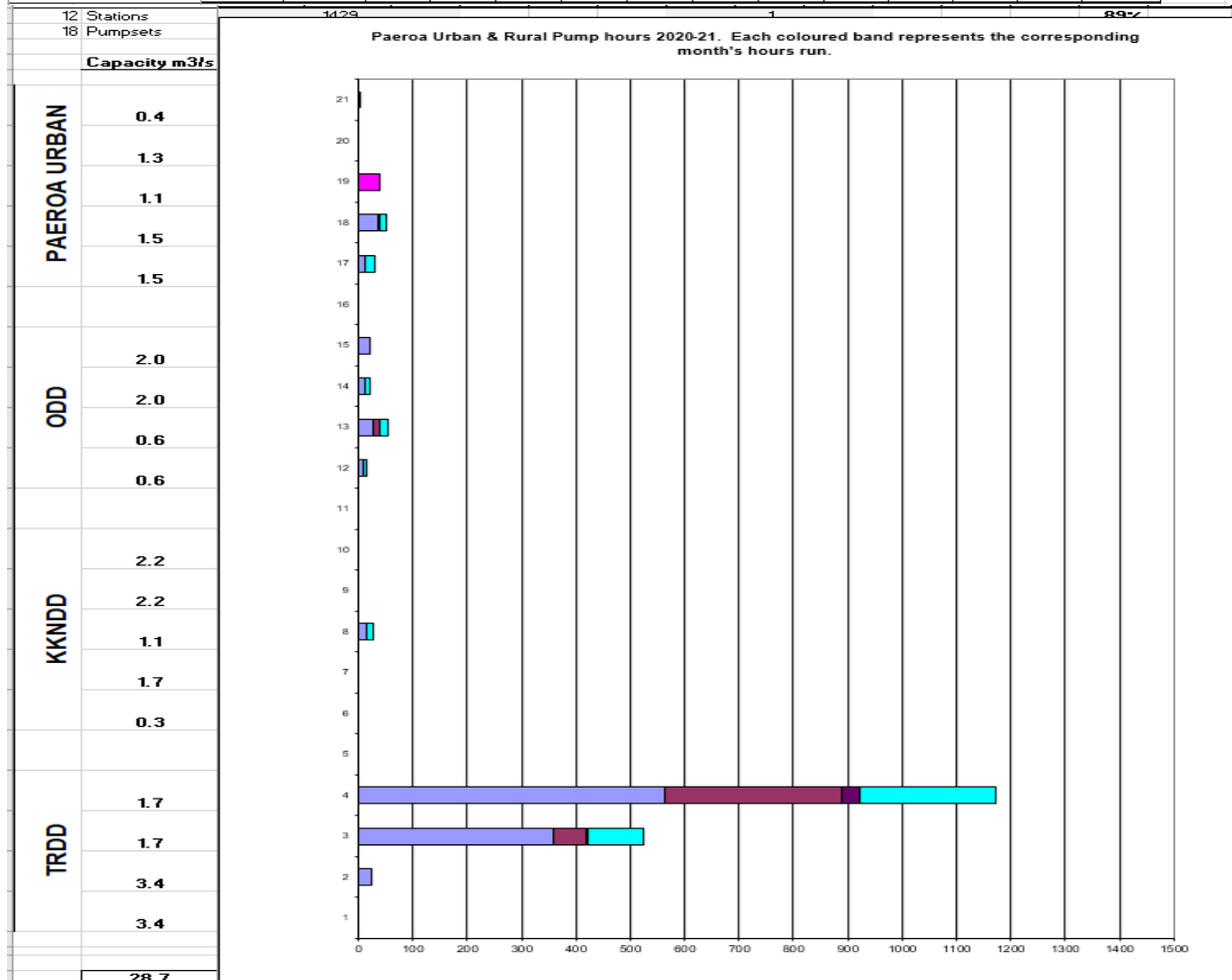
Approval

Prepared by	Guy Russell Drainage Engineer
Approved by	Adrian de Laborde Service Delivery Manager

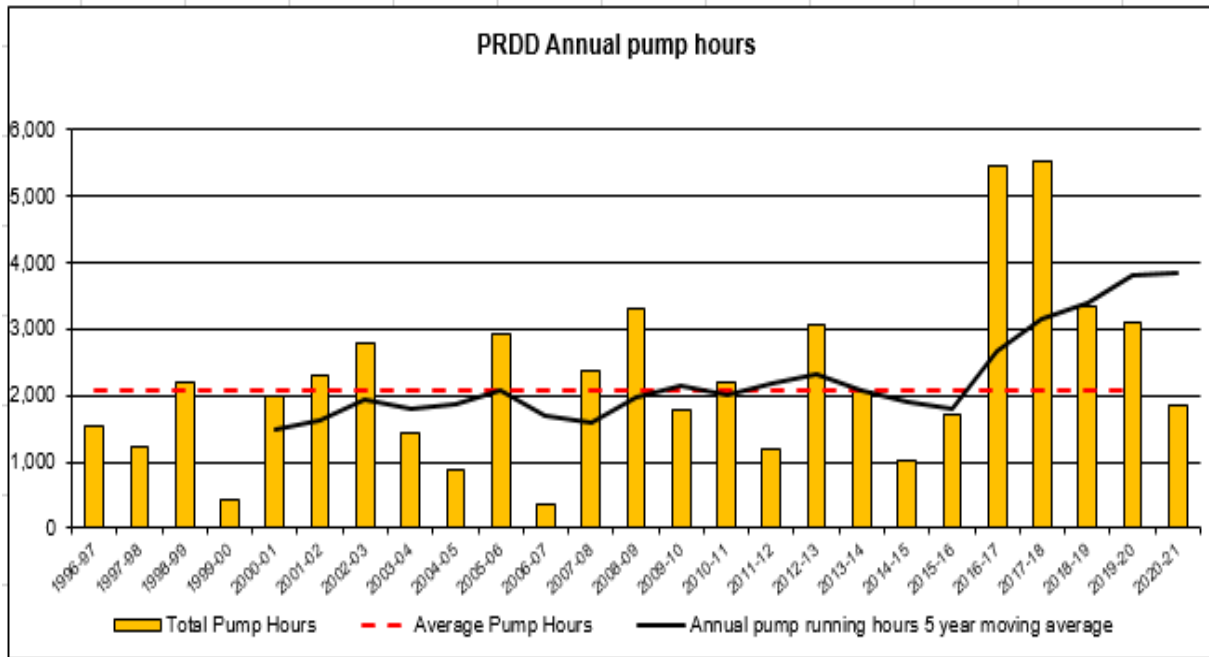
APPENDIX A

Paeroa Rural Drainage Area; pump running hours, 2020/21

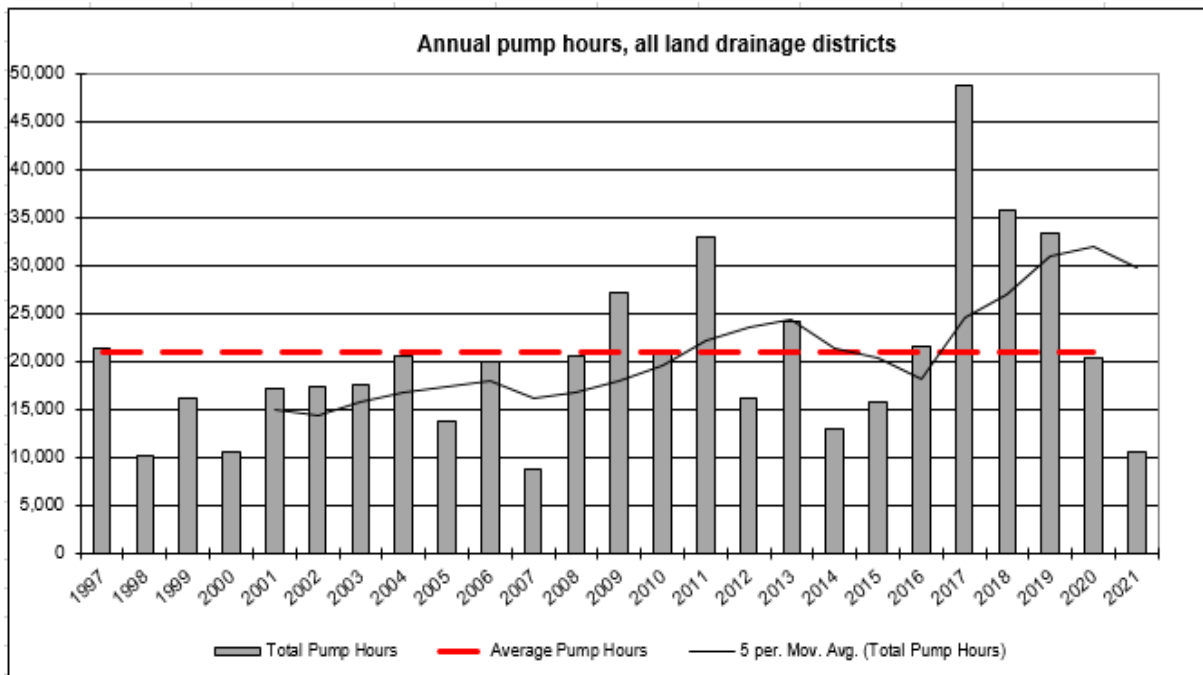
Paeroa Urban & Rural		Jul-20	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Average															
Paeroa Bottle		0	1	0	0	0	0	0	0	0	0	0	1	2	5	37%														
Borough Diesel		0	0	0	0	0	0	0	0	0	0	0	0	0	8	0%														
Borough Electric		0	0	0	0	0	0	0	0	0	40	0	0	40	10	385%														
No 54	Main Drain/1	37	2	0	0	0	0	0	0	0	0	0	13	52	75	69%														
	Main Drain/2	11	2	0	0	0	0	0	0	0	0	0	16	29	99	29%														
	[Puke Rd**]	0	0	0	0	0	0	0	0	0	0	0	0	0	197	0%														
														0%																
Whiritoa																														
No 76	Dolphin Dr/1	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
	Dolphin Dr/2	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
Opukeko		0	0	0	0	0	0	0	0	0	0	0	0	0																
No 56	Stocks/1	22	0	0	0	0	0	0	0	0	0	0	0	22	110	20%														
	Stocks/2	11	0	0	0	0	0	0	0	0	0	0	11	22	97	23%														
No 64	Opukeko	28	11	0	0	0	0	0	0	0	0	1	13	53	132	40%														
No 63	Hubbard Road	8	0	0	0	0	0	0	0	0	0	0	6	14	85	17%														
														69	11	0	0	0	0	0	0	1	30	111	424	26%				
Komata															26%															
No 57	Alexanders/1	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0%														
	Alexanders/2	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0%														
No 60	Kurere	16	0	0	0	0	0	0	0	0	0	0	12	28	145	19%														
No 62	Rangiora Rd	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0%														
No 69	Rangiora North	0	0	0	0	0	0	0	0	0	0	0	0	0	122	0%														
														16	0	0	0	0	0	0	0	12	28	379	7%					
Tirohia															7%															
No 52	Mill Rd/1	565	324	0	0	33	0	0	0	0	0	0	249	1171	426	275%														
	Mill Rd/2	360	60	0	0	0	0	1	0	0	0	0	102	523	632	83%														
No 58	Mill Rd No 2/1	24	0	0	0	0	0	0	0	0	0	0	0	24	108	22%														
	Mill Rd No 2/2	0	0	0	0	0	0	0	0	0	0	0	0	0	108	0%														
														949	384	0	0	33	0	1	0	0	0	351	1718	1275	135%			
Paeroa Rural Total														1034	395	0	0	33	0	1	0	0	0	1	393	1857	2077	89%		



Paeroa Rural Drainage Area; annual pump running hours, 1997 to 2021



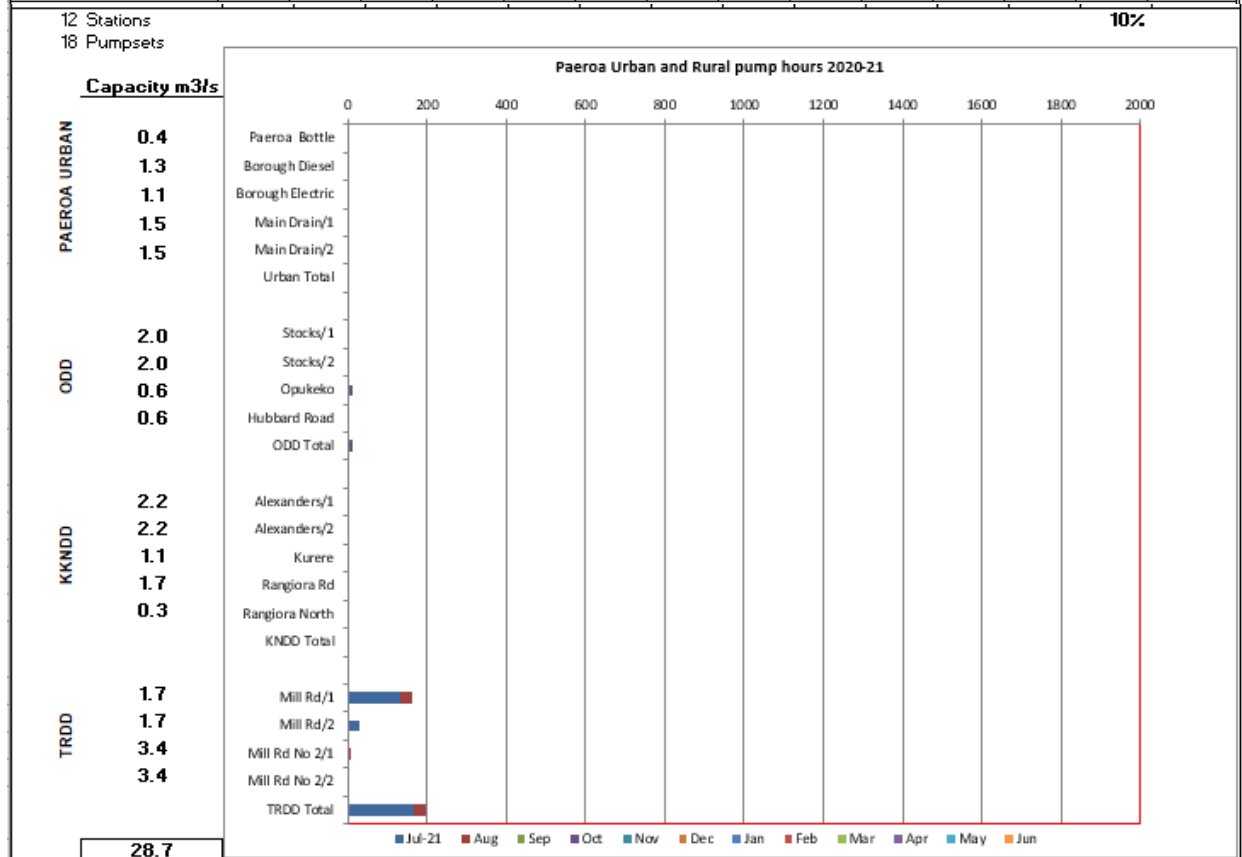
Annual pump running hours; all drainage areas, 1997 to 2021



APPENDIX B

Paeroa Rural Drainage Area; pump running hours, 2021/22

Paeroa Urban & Rural1=	Jul-21	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	Average
Paeroa Bottle	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Borough Diesel	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Borough Electric	0	0	0	0	0	0	0	0	0	0	0	0	0	10
No 54 Main Drain/1	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Main Drain/2	0	0	0	0	0	0	0	0	0	0	0	0	0	99
Urban Total	0	0	0	0	0	0	0	0	0	0	0	0	0	197
Opukeko													0%	
No 56 Stocks/1	0	0	0	0	0	0	0	0	0	0	0	0	0	110
Stocks/2	0	0	0	0	0	0	0	0	0	0	0	0	0	97
No 64 Opukeko	8	1	0	0	0	0	0	0	0	0	0	0	9	132
No 63 Hubbard Road	0	0	0	0	0	0	0	0	0	0	0	0	0	85
ODD Total	8	1	0	0	0	0	0	0	0	0	0	0	9	424
Komata													2%	
No 57 Alexanders/1	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Alexanders/2	0	0	0	0	0	0	0	0	0	0	0	0	0	31
No 60 Kurere	0	0	0	0	0	0	0	0	0	0	0	0	0	145
No 62 Rangiora Rd	0	0	0	0	0	0	0	0	0	0	0	0	0	50
No 69 Rangiora North	0	0	0	0	0	0	0	0	0	0	0	0	0	122
KNDD Total	0	0	0	0	0	0	0	0	0	0	0	0	0	379
Tirohia													0%	
No 52 Mill Rd/1	133	31	0	0	0	0	0	0	0	0	0	0	164	426
Mill Rd/2	29	0	0	0	0	0	0	0	0	0	0	0	29	632
No 58 Mill Rd No 2/1	1	1	0	0	0	0	0	0	0	0	0	0	2	108
Mill Rd No 2/2	2	0	0	0	0	0	0	0	0	0	0	0	2	108
TRDD Total	165	32	0	0	0	0	0	0	0	0	0	0	197	1275
													15%	
Paeroa Rural Total	173	33	0	0	0	0	0	0	0	0	0	0	206	2077



APPENDIX C

Paeroa Rural Drainage District							
Financial Report for 12 months to 30 June 2021							
Item	Total Budget	Budget YTD	Actual YTD	Variance	of YTD Budget	of Total Budget	Note
DRAINAGE OPERATIONS							
Komata North							
Vegetation Control	20,000	20,000	16,852	3,148	84%	84%	
Mechanical Cleaning	15,000	15,000	592	14,408	4%	4%	
Maintenance/Fencing/Culverts	1,537	1,537	0	1,537	0%	0%	
TOTAL DRAIN MAINTENANCE	36,537	36,537	17,444	19,093	48%	48%	
Pumps							
General	1,663	1,663	1,980	(317)	119%	119%	
Komata Pumps	7,000	7,000	1,318	5,682	19%	19%	
TOTAL	8,663	8,663	3,299	5,364	38%	38%	
Floodgates							
	738	738	1,754	(1,016)	238%	238%	
TOTAL	738	738	1,754	(1,016)	238%	238%	
Stopbanks							
Tributary Banks	0	0	0	0			
TOTAL	0	0	0	0			
Other							
Weather Events	632	632	0	632	0%	0%	
Asset Liaison	842	842	164	678	19%	19%	
Data Collection	0	0	3,563	(3,563)			
Data Maintenance	0	0	98	(98)			
Drain Inspection	1,683	1,683	665	1,018	40%	40%	
Rates	0	0	0	0			
Meeting Expenses	211	211	492	(281)	233%	233%	
Insurance	3,158	3,158	626	2,532	20%	20%	
TOTAL	6,526	6,526	5,607	919	86%	86%	
TOTAL OPERATING	52,464	52,464	28,104	24,360	54%	54%	
Overheads							
Overheads	24,919	24,919	24,919	0	100%	100%	
TOTAL	24,919	24,919	24,919	0	100%	100%	
Depreciation							
Depreciation	31,353	31,353	0	31,353	0%	0%	
TOTAL	31,353	31,353	0	31,353	0%	0%	
Interest							
Interest	(15,765)	(15,765)	(15,765)	0	100%	100%	
TOTAL	(15,765)	(15,765)	(15,765)	0	100%	100%	
TOTAL EXPENDITURE Komata North	92,971	92,971	37,258	55,713	40%	40%	
INCOME							
Rates Funding	(68,987)	(68,987)	(68,987)	0	100%	100%	
Opening Balance as at 01/07/2020	(485,362)						

Item	Total Budget	Budget YTD	Actual YTD	Variance	Actual % of YTD	Actual % of Total	Note
Opukeko							
Vegetation Control	3,000	3,000	1,731	1,269	58%	58%	
Mechanical Cleaning	4,000	4,000	7,333	(3,333)	183%	183%	
Maintenance/Fencing/Culverts	421	421	0	421	0%	0%	
TOTAL DRAIN MAINTENANCE	7,421	7,421	9,064	(1,643)	122%	122%	
Pumps							
General	1,432	1,432	716	716	50%	50%	
Opukeko Pumps	14,500	14,500	3,523	10,977	24%	24%	
TOTAL	15,932	15,932	4,240	11,692	27%	27%	
Floodgates							
	336	336	0	336	0%	0%	
TOTAL	336	336	0	336	0%	0%	
Other							
Weather Events	421	421	0	421	0%	0%	
Asset Liaison	632	632	246	386	39%	39%	
Data Collection	0	0	45	(45)			
Data Maintenance	0	0	98	(98)			
Drain Inspection	632	632	574	58	91%	91%	
Rates	0	0	0	0			
Meeting Expenses	209	209	164	45	78%	78%	
Insurance	316	316	676	(360)	214%	214%	
TOTAL	2,210	2,210	1,803	407	82%	82%	
TOTAL OPERATING	25,899	25,899	15,107	10,792	58%	58%	
Overheads							
Overheads	17,433	17,433	17,433	0	100%	100%	
TOTAL	17,433	17,433	17,433	0	100%	100%	
Depreciation							
Depreciation				0			
TOTAL	0	0	0	0			
Interest							
Interest	302	302	302	0	100%	100%	
TOTAL	302	302	302	0	100%	100%	
TOTAL EXPENDITURE Opukeko	43,634	43,634	32,842	10,792	75%	75%	
INCOME							
Rates Funding	(39,612)	(39,612)	(39,612)				
Opening Balance as at 01 July 2020	943					0	

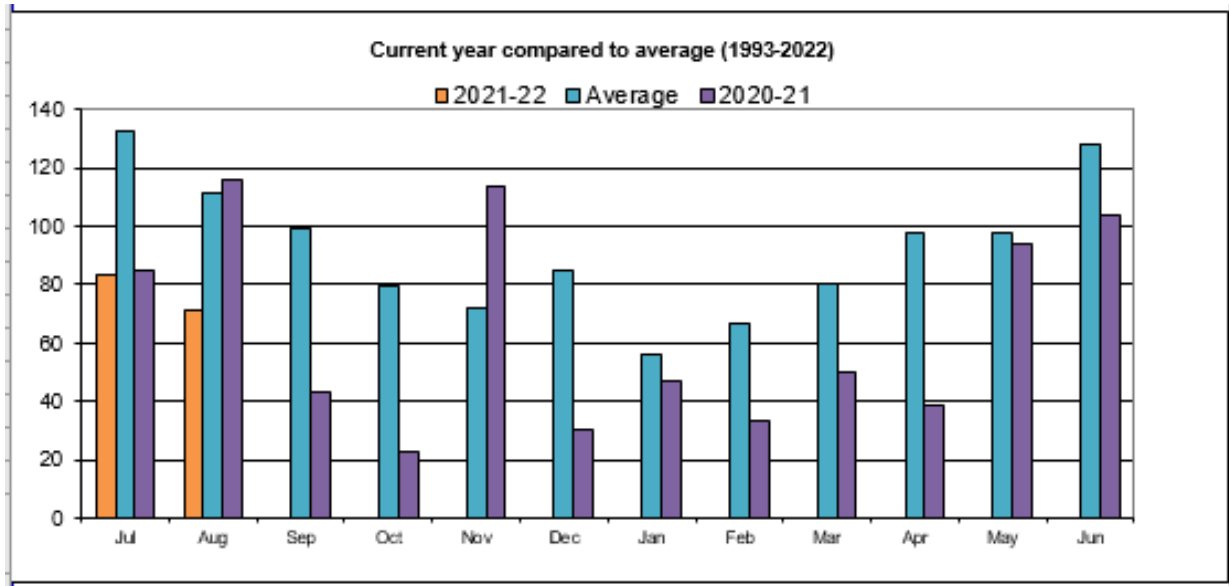
Item	Total Budget	Budget YTD	Actual YTD	Variance	Actual % of YTD	Actual % of Total	Note
Tirohia							
Vegetation Control	15,000	15,000	12,523	2,477	83%	83%	
Mechanical Cleaning	12,000	12,000	1,054	10,946	9%	9%	
Maintenance/Fencing/Culverts	1,685	1,685	0	1,685	0%	0%	
TOTAL DRAIN MAINTENANCE	28,685	28,685	13,577	15,108	47%	47%	
Pumps							
General	2,400	2,400	1,870	530	78%	78%	
Tirohia Pumps	40,000	40,000	18,098	21,902	45%	45%	
TOTAL	42,400	42,400	19,967	22,433	47%	47%	
Floodgates							
Floodgates	1,566	1,566	30,072	(28,506)	1920%	1920%	
TOTAL	1,566	1,566	30,072	(28,506)	1920%	1920%	
Stopbanks							
Tributary Banks				0			
TOTAL	0	0	0	0			
Other							
Weather Events	842	842	421	421	50%	50%	
Asset Liaison	632	632	1,476	(844)	234%	234%	
Data Collection	0	0	901	(901)			
Data Maintenance	0	0	98	(98)			
Drain Inspection	633	633	1,394	(761)	220%	220%	
Pump Operation	0	0	0	0			
Rates	0	0	0	0			
Appointed Member Expenses	0	0	0	0			
Meeting Expenses	211	211	984	(773)	466%	466%	
Insurance	1,895	1,895	1,424	471	75%	75%	
TOTAL	4,213	4,213	6,698	(2,485)	159%	159%	
TOTAL OPERATING	76,864	76,864	70,314	6,550	91%	91%	
Overheads							
Overheads	27,334	27,334	27,334	0	100%	100%	
TOTAL	27,334	27,334	27,334	0	100%	100%	
Depreciation							
Depreciation	33,502	33,502	0	33,502	0%	0%	
TOTAL	33,502	33,502	0	33,502	0%	0%	
Interest							
Interest	(10,782)	(10,782)	(10,782)	0	100%	100%	
TOTAL	(10,782)	(10,782)	(10,782)	0	100%	100%	
TOTAL EXPENDITURE Tirohia	126,918	126,918	86,866	40,052	68%	68%	
INCOME							
Rates Funding	(126,305)	(126,305)	(126,305)				
Opening Balance as at 01 July 2020	(372,511)						
TOTAL DRAINAGE EXPENDITURE	263,523	263,523	156,966	106,557	60%	60%	

APPENDIX D

Ngatea Rainfall Figures; 1993 to present

Ngatea Monthly Rainfall													Haywards Road (to 1999). HDC Depot (2000 on)
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
1993	36.0	28.5	95.0	50.0	123.0	181.5	8.0	111.0	58.0	37.0	100.0	28.5	857
1994	81.0	47.5	51.5	64.0	78.0	116.0	155.0	100.5	153.0	112.5	30.0	26.5	1016
1995	37.0	71.0	196.5	245.5	88.5	181.0	203.5	74.0	73.0	94.0	136.5	128.5	1529
1996	29.5	89.5	88.5	227.5	82.0	166.5	137.5	147.0	149.0	34.0	72.5	222.0	1446
1997	4.5	51.0	195.0	58.0	97.5	138.5	64.5	65.5	221.5	61.0	39.0	49.0	1045
1998	12.0	97.0	67.0	48.0	56.5	97.0	299.0	104.0	48.0	100.0	85.0	89.0	1103
1999	81.0	28.0	81.0	91.0	45.0	94.5	142.0	132.0	88.0	53.0	206.5	109.5	1152
2000	60.0	11.5	52.5	171.0	85.0	75.5	154.5	114.0	97.5	48.0	96.5	79.0	1045
2001	16.5	156.5	49.0	169.0	165.5	50.0	74.5	121.0	47.5	134.0	114.0	177.0	1275
2002	117.0	39.5	50.5	62.0	61.0	168.5	135.0	79.0	75.5	73.0	34.5	54.0	950
2003	110.0	105.0	102.0	134.0	73.0	124.5	101.5	58.5	155.0	107.0	36.5	111.5	1219
2004	98.5	230.0	11.5	21.0	175.5	106.5	120.5	112.0	119.0	80.0	56.0	130.5	1261
2005	30.5	32.0	32.5	7.0	147.5	118.0	152.5	59.0	87.0	145.5	65.5	107.0	984
2006	37.0	47.5	34.5	120.0	82.0	86.0	76.0	108.0	57.0	90.5	64.0	36.0	839
2007	56.0	27.0	146.0	45.0	41.0	92.0	281.0	95.0	68.5	76.0	40.0	53.0	1021
2008	2.0	35.0	40.5	146.5	71.0	152.5	253.0	166.0	52.0	94.0	47.0	61.0	1121
2009	59.0	120.0	30.0	72.0	91.0	150.0	124.0	91.0	85.0	119.0	35.0	81.0	1057
2010	63.0	4.0	13.0	44.0	139.0	230.5	90.0	229.0	146.0	18.0	28.0	62.0	1067
2011	270.0	9.0	172.0	85.0	101.0	110.0	127.0	57.0	74.0	76.0	15.0	157.0	1253
2012	63.0	82.0	130.0	39.0	111.0	52.0	179.0	130.0	85.0	69.0	71.0	64.0	1075
2013	2.0	17.0	23.0	128.0	162.0	117.0	48.0	122.0	133.0	41.0	104.0	96.0	993
2014	41.0	8.0	35.0	98.0	42.0	237.0	109.0	110.0	137.0	73.0	50.0	72.0	1012
2015	10.0	44.0	79.0	114.0	136.0	59.0	121.0	185.0	96.0	51.0	125.0	19.0	1039
2016	103.0	167.0	39.0	51.0	96.0	137.0	152.0	100.0	162.0	82.0	66.0	50.0	1205
2017	24.0	107.0	341.0	255.0	142.0	63.0	131.0	98.0	127.0	117.0	50.0	9.0	1464
2018	100.0	213.0	49.0	127.0	106.0	175.0	116.0	119.0	46.0	134.0	93.0	228.0	1506
2019	21.0	15.0	40.0	98.0	52.0	59.0	128.0	157.0	105.0	84.0	40.0	54.0	853
2020	10.0	15.0	43.0	25.0	83.0	264.0	85.0	116.0	43.0	23.0	114.0	30.0	851
2021	47.0	33.0	50.0	39.0	94.0	104.0	83.0	71.0					521
2022													
Ave.	56	67	81	98	97	128	133	111	100	80	72	85	1058
Max	270	230	341	255	176	264	299	229	222	146	207	228	1529
Min.	2	4	12	7	41	50	8	57	43	18	15	9	521

Ngatea Rainfall; Current year compared to last year & average, by month



Ngatea Rainfall; Monthly accumulation compared to last year & average

