

RUAPEHU DISTRICT COUNCIL

DRAINAGE REPORT

2008

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SECTION ONE

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The purpose of this report is to schedule the drains in the urban areas of the Ruapehu District which are the responsibility of the Ruapehu District Council to maintain and those drains or watercourses which remain the responsibility of the landowner on which the drain or watercourse is located.

In the past there have been numerous requests for the Council to undertake some form of maintenance to various drains and watercourses within the District. Work has been undertaken on those drains which are obviously public drains but many requests for work on drains or watercourses where staff have been unsure of the Council's responsibility have been left depending on the outcome of this report.

The following 14 pages summarises all known drains and watercourses within the urban areas of the District and categorises them into public drains, private drains and watercourses. Roadside drains are accepted as being public drains and are only included where they form part of a stormwater system which requires assessment.

Public drains are the only drains for which the Council will accept responsibility for maintenance.

OHURA

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
5.1 Mangaparare Stream	✓		
5.2 Catholic Church Drain	✓		
5.3 Hihi Street West Drain	✓		
5.4 Taranui Street Swamp Drain		✓	
5.5 Ruru Street Drain	✓		
5.6 Ohura Ambulance Drain		✓	
a) Kakapo Street to Huia Street	✓		
b) Huia Street to Mangaparo Stream	✓		
5.7 Main or Central Ohura Drain	✓		
5.8 Playcentre Drain	✓		
5.9 Old Fire Station Drain	✓		
5.10 Huia Street Drain	✓		
5.11 Kakapo Street Drain	✓		
5.12 Western Railway Drain	✓		
5.13 Kiwi Street Drains	✓		

OHURA continued

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
5.14 Tongaporutu Road Drain	✓		
5.15 Ohura West Drainage Reserve	✓		
5.16 Taranui Road Watercourse			✓
5.17 Tawa Street Drain			✓
5.18 Williams Ave Drain	✓		

MATIERE

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
6.1 Kaka Street and Moko Street Drain	✓		
6.2 Whanui Street Drain	✓		
6.3 Matiere Central Drain	✓		
6.4 Tui Street and Titi Street Junction Drain	✓		
Note – Matiere is considered a rural area and as such the above drains are maintained by the Roading Maintenance Contractor			

TAUMARUNUI – Taumarunui Township

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.1.1 Hakiaha Street / Ongarue Bridge Outfall	✓		
7.1.2 Miriama Street Outfall	✓		
7.1.3 Huia Street Outfall	✓		
7.1.4 Taumarunui Street Outfall	✓		
7.1.5 Taumarunui Domain Drain	✓		
7.1.6 Turaki Street Drain	✓		
7.1.7 Taitua Street Drain	✓		
7.1.8 Maata Street Drain	✓		
7.1.9 Paraone Street Drain	✓		
7.2	<u>TAUMARUNUI – Hospital Hill / Kururau Road</u>		
7.2.1 Hospital Hill Drain	✓		
7.2.2 Pei Te Hurinui Drain	✓		
7.2.3 Cross Street Drain	✓		
7.2.4 Bullians Ave Watercourse			✓

TAUMARUNUI – Rangaroa, Golf Road & Lairdvale Road

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.3.1 Mangakahikatoa Stream			✓
7.3.2 Rangaroa Stream			✓
7.3.3 63 Rangaroa Road Watercourse			✓
7.3.4 Jilesen's Watercourse (Rangaroa Road)			
a) Jilesen property		✓	
b) Remainder			✓
7.3.5 Rangaroa Corner Watercourse			✓
7.3.6 Faulkner Park Outfall	✓		
7.3.7 Roslyn Street Reserve Drain	✓		
7.3.8 Lairdvale Road Drain	✓		
7.3.9 Lyndon Jones Watercourse			✓
7.3.10 Taringamotu Road Drain – onto golf course	✓		
7.3.11 Tuhua Domain Drain	✓		
7.3.12 Manson Street Outfall	✓		
7.3.13 Weston's Watercourse			✓

TAUMARUNUI – Rangaroa, Golf Road & Lairdvale Road continued

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.3.14 New Road Drain	✓		
7.3.15 Ward Street Drain			
a) Upstream of 23 Golf Road		✓	
b) Downstream of 23 Golf Road	✓		
7.3.16 23 Golf Road Watercourse	✓		

TAUMARUNUI - Matapuna

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.4.1 Sales Yard No.3 Drain		✓	
7.4.2 Sales Yard No.2 Drain		✓	
7.4.3 Sales Yard Drain	✓		
7.4.4 Housing Corporation Drain	✓		
7.4.5 160 Taupo Road Drain			✓
7.4.6 Tuku Street Drain	✓		
7.4.7 Reu Street Drain	✓		
7.4.8 Porou Street Drain	✓		
7.4.9 Para Street Drain	✓		
7.4.10 BP Road Drain	✓		

MANUNUI

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.5.1 Camping Ground Drain	✓		
7.5.2 Manunui Straight Roadside Drain		✓	
7.5.3 Railways Drain		✓	
7.5.4 AFFCO Drain		✓	
7.5.5 Maukuroa Stream*			
a) Upstream of Matai Street			✓
b) Downstream of Matai Street	✓		
7.5.6 Matai Street Drains	✓	✓	
7.5.7 State Highway 4 Drains		✓	
7.5.8 Kowhai Drive Watercourse	✓		✓
7.5.9 Manunui Club Drains	✓	✓	
7.5.10 Fertiliser Depot, Timber Co. & SH4 Roadside Drains (SH4)		✓	
7.5.11 Manunui Domain Drain	✓		
7.5.12 Miro Street Outfalls	✓		
7.5.13 Mahoe Road Drain	✓		

HIKUMUTU

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
7.6.1 Hikumutu Road Drains	✓		
7.6.2 Sunshine Watercourse			✓
7.6.3 Marsack Road Drains	Roding		
7.6.4 Racecourse Road Drains	Roding		

PIRIAKA

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
8.1 Piriaka Springs Watercourse			✓

KAKAHI

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
9.1 Whakaraparapa Stream			✓
9.2 Harrison's Drain	✓		
9.3 Te Rena Road Drain	✓		
9.4 Kakahi Township Roadside Drains	✓		
Note – Kakahi is considered a rural area and as such the above drains are maintained by the Roading Maintenance Contractor			

OWHANGO

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
10.1 Onematua Road Drain	✓		
10.2 Owhango West Drain			✓
10.3 Ohoeka Street Drain	✓		
10.4 Railway Drain	✓		
10.5 Omatane Road Drain	✓		
10.6 Owhango East Watercourse			✓
10.7 Owhango Domain Drain	✓		
10.8 SH4 Discharge Drains	✓		

RAURIMU

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
11.1 Northern Watercourse – Wilson’s Creek			✓
11.2 Raurimu Road Drain	✓		
11.3 School Watercourse Drain	✓		
11.4 Poro Street No.1 Drain			
a) Southern end of Poro Street to Poro Street Watercourse	✓		
b) Poro Street Watercourse			✓
11.5 Poro Street No.2 Drain			
a) Top section of Poro Street	✓		
b) Discharge from private properties		✓	
c) From northern boundary of Section 28			✓
11.6 Hedgehog Haven Drain		✓	
11.7 Pito Street Drains	✓		
11.8 Raurimu West Drain			
a) Junction Doe Street to natural watercourse excluding (b)	✓		
b) Across Sections 18,19,20 and 21		✓	
c) Unnamed Natural Watercourse			✓

NATIONAL PARK

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
12.1 Carroll Street East Watercourse			✓
12.2 Buddo Street Drain	✓		
12.3 Ward Street Drain	✓		
12.4 Carroll Street Stormwater Reticulation	✓		
12.5 Station Road Drain		✓	
12.6 Millar Street Drain	✓		
12.7 Station Drain No.1	✓		
12.8 Findlay Street North Drain	✓		
12.9 Station Drain No.2		✓	
12.10 Findlay Street Drain	✓		
12.11 Tongariro Place Drain		✓	
12.12 National Park South Drain		✓	✓
12.13 Schnapps Hotel Drain	✓		
12.14 State Highway Drains	✓		

RAETIHI

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
13.1 Seddon Street Watercourse			✓
13.2 Grey Street Watercourse			✓
13.3 Islington / George Street Drain	✓		✓
13.4 Grey Street Stormwater System	✓		
13.5 Duncan Street Drain	✓		
13.6 King Street Stormwater System	✓		
13.7 Raetihi Borough Yard Drain	✓		
13.8 Pitt Street Stormwater System	✓		
13.9 Duncan Street Stormwater System	✓		
13.10 Raetihi Hotel Drain	✓		
13.11 Plunket Street Drains	✓		
13.12 Makotuku Valley Road Drains	✓		
13.13 Ranfurly Terrace Drain	✓		
13.14 Parapara Road Drains	✓		

OHAKUNE

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
14.1 Miro Street Watercourse			✓
14.2 Railway Watercourses			
a) Railway Drain No.1			✓
b) Railway Drain No.2			✓
c) Railway Drain No.3	✓		
14.3 Korokoio Stream			✓
14.4 Manuka Street Watercourse			✓
14.5 Old Station Road Drains and Watercourses	✓		✓
14.6 Snowmass Drain	✓		
14.7 Turoa Village No 1 Watercourse	✓		
14.8 Turoa Village No 2 Watercourse	✓		

RANGATAUA

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
15.1 Marino Street Watercourse			✓
15.2 Marino Street Drain	✓		
15.3 Nei Street Drain	✓		✓
15.4 Miharo Street Drains	✓		
15.5 Kaha Street Watercourse			✓
15.6 Kaha Street Drains	✓		
15.7 Piwari Street Drain	✓		
15.8 Rangataua Roadside Drains	✓		

WAIOURU

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
16.1 Waiouru Watercourse	✓		
16.2 Ruanui Street Drain	✓		
16.3 State Highway 1 Drain	✓		
16.4 State Highway 49 Watercourse			✓
16.5 Ngauruhoe Street Drain		✓	

PIPIRIKI

NAME OF DRAIN	RECOMMENDATION		
	PUBLIC DRAIN	PRIVATE DRAIN	NATURAL WATERCOURSE
17.1 Roadside Drains	✓		

SECTION TWO

DRAINAGE REPORT AND EXPLANATION

EXPLANATION OF DRAINS & WATERCOURSES

DRAINAGE – RUAPEHU DISTRICT COUNCIL

The purpose of this report is to carry out an inspection of all drains within the urban areas of the district and then as far as possible assess the status of each drain by the application of the criteria laid down by statute and the courts. Drains may be public in which case they fall under the jurisdiction of the territorial authority. If a drain is private then is the responsibility of the owner of the land upon which the drain lies. This is the general theme and subject to a number of exceptions, which will be set out.

WHAT IS A “DRAIN”?

The answer to this is set out in part XXVI of the Local Government Act (“LGA”) in Section 441.

“ Drain means a sewerage drain or a stormwater drain; and “drainage” has a corresponding meaning:”

A “Public Drain” obtains special mention under S.441(2) to include:

“... every sewerage or stormwater drain in the district that has actually and whether legally or not, has been under the control of any council for not less than 20 years as a drain...”

Such a provision has the potential of acquiring the history of each drain, which may be a public drain on the face of it, to be investigated. This possibility is eased somewhat as it will be apparent from what follows that many public drains are identifiable by a number of obvious features. Some however will be classified with difficulty.

WHAT IS A “PUBLIC DRAIN”?

The term “public drain” is not defined in the LGA but has a number of judicial tests which were applied in Aprea v. Wellington City [1969] NZLR 409

The Judicial Tests are:

- 1) Literally the phrase means a drain belonging to or for the use of the public. In that sense I think it means a drain to which more than one land owner can connect his private drains for the discharge of sewage.**
- 2) Was the drain constructed at public expense by the local authority, if so it would clearly be a public drain, even though it may be on private land.**
- 3) Has the control and maintenance of the drain been taken over by the local authority. This should be read in conjunction with the provisions of S.441(2)**

which makes a drain a public drain if maintained by Council for 20 years. It may also be a public drain if maintained for less than that period.

4) Whether two or more people have the right to discharge their drainage into it.

These tests are general guidelines to whether a drain is a public drain and **none is conclusive and not all have equal weight.**

These tests were added to by the decision in Stubbs v. Taumarunui Borough [1975] 1 NZLR 125 which confirmed that, first, they were indeed guidelines, secondly, drains marked on a drainage map as required by S.444 LGA do not make them public drains and thirdly that payment by a council for sewers does not make those sewers public drains.

WHAT IS “STORMWATER”?

There is no statutory definition of “stormwater” but it was judicially considered in Seed v. Langham 18/12/93 by Justice Ellis in the Wellington High Court (**CP699/91**) in a reported case. He said that: *A storm denotes heavy rain. Perhaps the distinction is that only heavy precipitation lies on land, light precipitation soaks in or evaporates. In my view such subtleties of approach are unnecessary. Stormwater is in my view rainwater that falls and lies on the land.*

Justice Ellis makes it abundantly clear that rainwater once it falls onto land becomes stormwater and legislation cannot be read to exclude some water and not other water.

WHAT IS A “WATERCOURSE”?

A watercourse was judicially defined in 1904 in Knapp v. Heaps (1904) 23 NZLR 757 as a depression passing through private land, which drained the adjoining land in times of flood. The Council have a power to lead stormwater into a watercourse under S.274G LGA which provides for payment of compensation. Injunctive relief is also available under this section.

WHO MUST RECEIVE WATER?

At Common Law, natural water flow from higher land on to lower adjacent land must be received. The natural waters flowing from higher ground be received without any express grant or registered easement. If the water is collected in one body by the owner of the higher ground in the natural use of his or her property for draining or otherwise improving it, the owner of the inferior land is bound to receive that water on his or her property. See Bailey v. Vile [1931] NZLR 829 and Davis v. Lethbridge [1976] 1 NZLR 689.

In Wilsher v. Corban [1955] NZLR 478 an old drain on the Defendant’s land occasionally overflowed and flooded lower lying land. The drainage system had been adopted for many years before and the drainage was a natural place for the water to go from the higher land. The fact that they were collected in the drain did not entitle the Plaintiff to refuse to receive it in that way.

WHEN DOES A WATERCOURSE BECOME A PUBLIC DRAIN?

Pursuant to S.446 LGA a watercourse becomes a public drain if it is covered in by the Council, however it may be said that a public drain is created before that time in the event that work is done to it altering it significantly through maintenance and clearing of the watercourse. The watercourse can be on private land (Knapp v. Heaps [1904]).

A watercourse on public land differs from a public drain in that it does not of itself require to be maintained by Council. That however is a short term solution to a situation where Council policy is not only to do the right thing within its reasonable resources but Council may also be wish to be seen to be doing the right thing.

Watercourses could be monitored closely and if a nuisance is created, or is likely to be created, or where necessary for any health reason the Council may invoke Sections 446 or 447 which enable the watercourse to be closed if it is on private land and for the owner of the private land to pay the cost of “betterment”. That amount is not the cost to Council of closing the watercourse but rather the increased value of the land by virtue of enclosing the watercourse. That may be less than the cost or more. Any claim for betterment must be made within one year of the work done.

PUBLIC/PRIVATE DRAIN DISTINCTION

A public drain is maintained from the general drainage levy from rating revenue.

A private drain is maintained at the expense of the owner of the private land.

There is an obligation on the Council to maintain a public drain. There is no obligation on Council to ensure that private drains are maintained in good repair although it may give notice to repair or maintain a drain to a private owner or even to construct one. See S.459 LGA where the powers of Council are quite extensive. Within certain limits set out in S.459(7) the Council can require the owner of any land or building to construct private drains and to do any work necessary for the efficient drainage of the premises.

Stubbs v. Taumarunui Borough Council (1975) ironically is a very “close to home” example of a development of a drainage law. The famous Stubbs case is authority for the proposition that if a Council pays for drainage/sewage it does not necessarily mean it is a public drain. Taumarunui Borough paid for the cost of laying sewage pipes over Stubbs property and connecting him to it. Stubbs defaulted in payment of what was requested of him and alleged it was a public drain.

One of the tests of whether a drain is public is whether the Council paid for it. However that is not a conclusive test where the drain is on private land.

CONCLUSION

The above are criteria to classify drains in the private/public categories and it now remains to classify some problematic examples which have been inspected. The same criteria will be utilised to classify all drains in the District.

SECTION THREE

EXTRACT FROM THE RAILWAY SAFETY & CORRIDOR MANAGEMENT ACT 1992

AGREEMENT WITH NEW ZEALAND RAILWAYS TUKU STREET DRAIN

**EXTRACT FROM THE RAILWAY SAFETY
& CORRIDOR MANAGEMENT ACT 1992**

11. Railway drains—

(1) Where any drain on, above, or under any railway forms part of or is used in connection with any sewerage or stormwater drainage system that is under the control of a controlling authority or local authority, the cost of maintaining the drain shall be borne by that controlling authority or local authority; and if the work of maintenance is carried out by the rail service operator the cost shall be recoverable from the controlling authority or local authority as a debt due to the rail service operator.

(2) Nothing in this section shall confer on any controlling authority or local authority the right to enter on any such railway for the purposes of any such drain without the prior consent of the rail service operator; and the operator may grant consent subject to such terms and conditions as the operator thinks fit.

Cf 1981 No 119 s 31A; 1988 No 76 s 4

31A. Railway drains—

01 Apr 1988 to 31 Mar 1993

(1) Where any drain on, above, or under railway land forms part of or is used in connection with any sewerage or stormwater drainage system which is under the control of a local authority, the cost of maintaining the drain shall be borne by that local authority; and if the work of maintenance is carried out by the Crown or the Corporation the cost shall be recoverable from the local authority as a debt due to the Crown or Corporation, as the case may be.

(2) Nothing in this section shall confer on any local authority the right to enter on any such railway for the purposes of any such drain without the prior consent of the Corporation, which may grant consent subject to such terms and conditions as it thinks fit.

Rights of Entry: Note that s709(c) Local Government Act 1974 (Chapter 1) gives a local authority the power to enter onto any land for the purpose of ascertaining whether any drainage works are being misused. Under s708A, 24 hours notice of intended entry is required, unless in any sudden emergency.

**DEED OF AGREEMENT WITH NEW ZEALAND RAILWAYS
TUKU STREET DRAIN**

THIS AGREEMENT made the sixteenth day of November one thousand nine hundred and thirty six BETWEEN HIS MAJESTY THE KING (who with his successors and assigns is hereinafter referred to as and included in the term “the Grantor”) of the one part AND THE CORPORATION OF THE MAYOR COUNCILLORS AND BURGESSES of the BOROUGH OF TAUMARUNUI (which with its successors and permitted assigns is hereinafter referred to as “the Grantee”) of the other part WITNESSETH that in consideration of the payments to be made as hereinafter provided and subject to the terms covenants and conditions herein contained expressed or implied and on the part of the Grantee to be paid observed and performed THE GRANTOR hereby GRANTS to the Grantee for the term of one (1) year from the eleventh day of August one thousand nine hundred and thirty six unless sooner determined under the provisions hereinafter contained and so on from year to year unless or until determined under any of the said provisions the right to construct a drain on railway land on the Southern side of the Auckland to Marton Railway near Matapuna between points opposite about 174 miles 76 chains and 175 miles and 70 chains respectively on the mileage of the said railway in position to be approved by the District Railway Engineer

AND the Grantee hereby covenants with the Grantor as follows :-

1. THAT during the continuance of this Grant the Grantee will pay to the Grantor on the eleventh day of August in each and every year the annual charge of three pounds (£3)
2. THAT the work of constructing the said drain shall be done at the cost of the Grantee and to the entire satisfaction of the said Engineer PROVIDED THAT if the said Engineer shall so decide the whole or any part of the work shall be done under the supervision of the railway

workmen and the Grantee shall pay the cost of such work or supervision to the Railway Department on demand

3. THAT the Grantee will at the cost of the Grantee and to the entire satisfaction of the said Engineer maintain the said drain on railway property and will keep the said drain free from pollution and obstruction and will be liable to the Grantor for the cost of repairing any damage which may occur to railway property through the use or existence of the said drain on railway land

4. THAT the Grantee will not hold the Grantor liable for any accident or damage to the said drain

5. THAT in the event of any addition or alteration to the railway necessitating an alteration in the position of the said drain the cost of such alteration shall be borne by the Grantee

6. THAT the Grantee doth hereby save harmless and keep indemnified the King the Minister of Railways the Government of the Dominion and the Railway Department from and against all damage to railway property and from and against all claims costs suits actions and demands whatsoever which may be made for or on account of any accident or injury occurring to any person or for damage to any property arising out of or in any way attributable to the use or existence of said drain on railway land

7. THAT on the determination of this Agreement the Grantee shall leave the railway property in the same good order and condition as it was before this right was created

AND IT IS HEREBY AGREED AND DECLARED:-

8. THAT this Agreement shall be subject at all times to section 51 of the Government Railways Act, 1926, and any amendment thereof

9. THAT the Grantee will not assign or in any way deal with the right hereby conferred without the consent in writing of the General Manager of Railways first had and Engineer

10. THAT if by reason of the construction of the said drain on railway land the rental received by the Railway Department on account of the lease of any land through which the said drain passes is adversely affected the Grantee shall reimburse the said Department to the extent of the loss occasioned to the said Department by reason of any reduction in rental which is required to concede

11. THAT subject to the provisions of clause 2 hereof the Grantee shall on first obtaining the consent of the said Engineer have permission to enter on to the railway property at all reasonable hours during the term of this Agreement for the purpose of maintaining the said drain

12. THAT the Grantor or the Grantee may at any time determine this Grant by either giving to the other three calendar months' notice in writing and on the expiration of such notice the right hereby created shall absolutely cease and determine

13. THAT if the charge for any year shall remain unpaid for seven (7) days after due date for the payment thereof (whether legally or formally demanded or not) or if any term covenant or provision hereof shall not be performed or observed for fourteen (14) days the Grantor may immediately determine this Agreement whereupon the right hereby granted shall be immediately revoked

14. THAT the Grantee shall not be entitled to any compensation at the termination of this Agreement

15. THAT in the construction of these presents when any notice is to be given or any action is to be taken by the Grantor hereunder it shall be sufficient if the notice be signed or such action taken by the General Manager of Railways or by some person acting under his express or implied authority and that any such notice shall be validly given if sent by letter or telegram addressed to the Grantee at the Grantee's then or last-known office or place of business

IN WITNESS WHEREOF THE General Manager of Railways in exercise of the power in this behalf duly delegated to him by the Minister of Railways pursuant to section 4 of the Government Railways Amendment Act, 1936, and acting for and on behalf of His Majesty the King hath executed this Agreement and the Grantee hath hereunto affixed its seal the day and year first hereinbefore written

SIGNED by GARRET HERCULES MACKLEY

General Manager of the New Zealand

Government Railways Department

In the presence of :-

Witness: CL Blackman

Occupation: Railway

Address: Wellington



THE COMMON SEAL of THE CORPORATION OF THE MAYOR COUNCILLORS AND BURGESSESS of the BOROUGH OF TAUMARUNUI was hereunto affixed in the presence of:-

C O Bach Mayor

EMaungh Councillor

I A Webb Town Clerk

SECTION FOUR

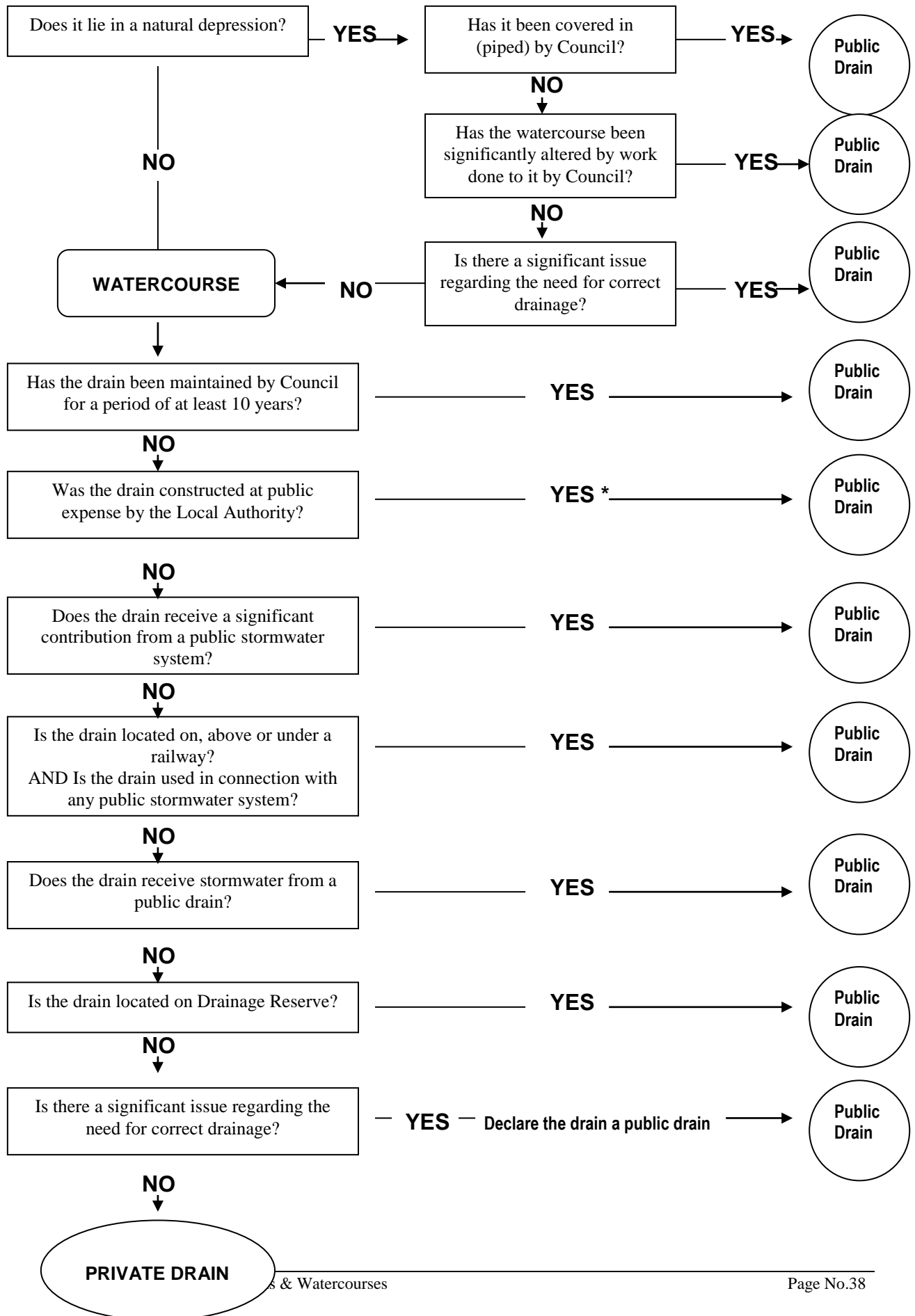
FRAMEWORK FOR THE

EVALUATION OF

DRAINS AND WATERCOURSES

4.0 FRAMEWORK FOR THE EVALUATION OF PUBLIC DRAINS AND WATERCOURSES

4.1 FLOW DIAGRAM FOR THE EVALUATION OF PUBLIC DRAINS AND WATERCOURSES



*Exception apply

4.2 FLOW CHART EXPLANATION

4.2.1 Does it lie in a natural depression?

A watercourse was judicially defined in 1904 in *Knapp v. Heaps* (1904) 23 NZLR 757 as a depression passing through private land which drained the adjoining land in times of flood. The Council have a power to lead stormwater into a watercourse under S.448 Local Government Act (LGA). A watercourse can be on private land.

4.2.2 Is it covered in (piped) by Council?

A watercourse becomes a public drain if it is covered in (piped) by Council (S446 LGA). The meaning of 'drain' is defined in s441(1) as a sewerage drain or a stormwater drain. Stormwater drain is defined (S441(1)) as a drain primarily for the reception and discharge of stormwater.

4.2.3 Has the watercourse been significantly altered by work done to it by Council?

It may be said that a public drain is created in the event that work done to it significantly alters the watercourse. Maintenance of a watercourse by Council does not affect its classification.

4.2.4 Has the drain been maintained by Council for a period of at least 20 years?

Was the drain constructed at public expense by the Local Authority?

In *Aprea v Wellington City* (1969) NZLR 409 a number of tests were outlined for determining whether a drain was a public drain:

- 1 Literally the phrase means a drain belonging to or for the use of the public. In that sense I think it means a drain which is not for the exclusive use of the owner of land but which is a drain to which more than one owner of land may connect his private drains for the discharge of sewage.
- 2 Was the drain constructed at public expense by the local authority, if so it would clearly be a public drain, even though it may be on private land.
- 3 Has the control and maintenance of the drain been taken over by the local authority.
- 4 Do two or more owners have the right to discharge their drainage into it.

These tests were accepted in *Stubbs v Taumarunui Borough* (1975) 1 NZLR 125,130 as furnishing general guidelines as to whether a drain was a public drain with the proviso that none was conclusive and none had equal weight. In recommending the classification of a drain tests 2 and 3 have been given considerable weight. Test 1 clearly applies to sewage. Test 3 has been given little weight.

A drain constructed by the local authority on public or private land is usually but not necessarily a public drain (*Stubbs v. Taumarunui Borough (1975) 1 NZLR 125*)

A drain that has been under the control of any Council for not less than 20 years is a public drain (S441 (2) LGA). A drain that has been maintained by Council for less than 20 years may be a public drain.

4.2.5 Does the drain receive a significant contribution from a public stormwater system?

Once a drain becomes a public drain it remains a public drain. (*Wellington v. Manuatū Railway Co Ltd*)

4.2.6 Is the drain located on Drainage Reserve

A drain located on Drainage Reserve is clearly a public drain.

4.2.7 Is the drain located on, above or under a railway?

Is the drain used in connection with any public stormwater system?

The Railway Safety and Corridor Management Act 1992 states that “Where any drain on, above or under any railway forms part of or is used in connection with any sewerage or stormwater drainage system that is under the control of a controlling authority or local authority, the cost of maintaining the drain shall be borne by that controlling authority or local authority.

4.2.8 Is there a significant issue regarding the need for correct drainage?

SECTION FIVE

DRAINS AND WATERCOURSES OHURA

5. OHURA

5.1 Mangaparae Stream

This stream is a natural watercourse from its source to the point where it enters the culvert under Hihi Street. During the early 1970's the stream was diverted from this point away from the town area.

The diversion started at Hihi Street and was diverted around the perimeter of the Ohura Domain, along a short section of unformed road (Huia Street), across a vacant section (Council's), across Mangaparae Road and discharges into its original channel on the downstream side of the Mangaparae Road culvert. The diversion work was undertaken by the Ministry of Works.

At the time the diversion was constructed, the old natural watercourse from Mangaparae Road to the discharge point into the Mangaparae River was cleaned by the Ministry of Works. Council has also since cleaned this section. (i.e.: it has been maintained for a period longer than 20 years). (See Fig 1)

According to the Evaluation Framework the drain is a public drain from the Hihi Street culvert to the point where it discharges into the Mangaparae River.

5.2 Catholic Church Drain

This is a short drain which starts at Ruru Road (culverted from the ex Ministry of Works Camp) and discharges into the Mangaparae Stream. The drain appears to be located on road reserve (Kuku Street) throughout its length and has been maintained by Council in the past. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.3 Hihi Street West Drain

This drain carries stormwater run-off from the Ohura golf course area and runs down the southern side of Hihi Street West. It enters a piped section at the water treatment plant which goes under Taranui Street, and discharges into a short section of open drain on the eastern side of the railway line before entering a culvert under Ruru Street which discharges into the Ruru Street Drain. Council has maintained this drain in the past from the point where the open drain from the golf course enters the road reserve. (See Fig 1)

According to the Evaluation Framework this drain is a public drain from where it enters the road reserve.

5.4 Taranui Street Swamp Drain – Private Drain

This drain was installed by Fred Aitchison to provide drainage to a low lying swampy area behind the Ohura Water Treatment Plant. It discharges into the Hihi Street West Drain at the Water Treatment Plant. (See Fig 1)

According to the Evaluation Framework this drain is a private drain.

5.5 Ruru Street Drain

This drain provides drainage to a low lying area of land between Ruru Street and Kahu Street. The Hihi Street West Drain discharges into this drain which ultimately discharges into the Mangaparae Stream near the intersection of Kahu and Ruru Streets. This drain has been maintained by Council for more than 20 years. (See Fig 1)

According to the Evaluation Framework this drain is a public drain. (4.2.4)

5.6 Ohura Ambulance Drain – Private Drain

This drain was part of the original Mangaparae Stream channel prior to it being diverted. A section of the old stream channel is still functioning as a drain and starts at the culvert under Kakapo Street after which the section through Sec 13, Blk XVII, Ohura Township has been subsoil drained and filled in by the owners of the adjoining sections.

The subsoil is thought to be constructed from mill slabs dumped in the old channel and covered over. This work was done without Council's approval. The drain then continues as an open drain through Huia, Hihi and Ngarimu Streets where it is culverted under each road.

At the downstream end of the Ngarimu Street culvert (which is a large diameter culvert installed when the Mangaparae Stream flowed on this course) the drain enters the School grounds where it is piped (approximately 300mm diameter).

A short side drain starting behind the old RSA Hall and discharging into the Ambulance Drain immediately upstream from the Hihi Street culvert also forms part of this drain. (See Fig 1)

According to the Evaluation Framework the Ohura Ambulance Drain is a public drain from Huia Street to the point of discharge where it leaves the School grounds.

5.7 Main or Central Ohura Drain

This network of drains provides drainage to the central area of the town. The drain starts in a low lying swampy area between Kakapo Street and the railway line and is generally located on drainage or road reserves to Huia Street. The drain is culverted under Kakapo and Huia Streets. From Huia Street, the drain continues through two privately owned sections (Section 5 and 15, Blk VIII, Ohura Township), under Ngarimu Street (culverted), across a section of recreation reserve and then into the Ohura School grounds. The first section (approximately 50m) through the school property is an open drain and then it enters a piped section which extends approximately 200m under the school grounds to where it discharges into the Mangaparae Stream. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.8 Playcentre Drain

The primary purpose of this drain is to provide for discharge of stormwater from two roadside sumps on Ngarimu Street. The drain is piped through a private section (the old Playcentre) where it discharges into an open drain which crosses a section of land designated as Ohura Domain before discharging into the Mangaroa River.

It is not known who piped the drain through the Playcentre grounds or when it was done but it would appear to have been done for safety reasons.

This drain would have been constructed by the former Ohura Town Board and would now be Council's responsibility. It is believed that Council will also have to accept responsibility for the maintenance of the piped section through the Playcentre grounds. (See Fig 1)

According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

5.9 Old Fire Station Drain

This drain provides drainage to a low lying area between Huia and Ngarimu Streets at the northern end of the town. The drain is piped under Ngarimu Street near the bridge approach before an open drain discharges into the Mangaroa River. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.10 Huia Street Drain

This drain collects stormwater from the unformed section of Kaka Street as well as Huia Street before being piped under Tongaporutu Road and discharging into the Mangaroa River.

There are a number of culverts that have been installed in the drain to provide access to adjacent properties. The section of drain in front of Te Awa's property (junction of Huia Street and Tongaporutu Road) has been piped without Council's approval. The work was done approximately 10 years ago. This section has blocked in the past and a manhole was installed approximately midway along the pipe and the blockage cleared. The maintenance of this piped section along Te Awa's property should remain their responsibility. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.11 Kakapo Street Drain

This drain starts at Kaka Street and flows in a northerly direction on the western side of Kakapo Street. The drain flows through a culvert under Tongaporutu Road before discharging into the Mangaroa River. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.12 Western Railway Drain

This drain is located on railway land and extends from near the Taranui Road overbridge along the base of the railway embankment to Tongaporutu Road where it is culverted under the road and discharges into the Mangaroa River below the railway bridge. The drain has the following functions:

1. To intercept ground water on the high side of the railway embankment (i.e. it forms a structural component of the railway)
2. The Ohura West drainage reserve discharges into the railway drain.
3. The Taranui Road natural watercourse also discharges into the railway drain.

Maintenance of the railway drain has become Council's responsibility (New Zealand Railway Corridor Act 1992). The drain has been maintained but the section behind the Kiwi Street houses is very difficult to maintain as there is insufficient room to operate a machine. Much of the maintenance along this section has to be done by hand. (See Fig 1)

According to the Evaluation Framework this drain is a public drain. (See 4.2.5 and 4.2.7)

5.13 Kiwi Street Drains

These drains consist of short lengths of open drain formed on each side of Kiwi Street to provide land drainage to areas on both sides of the road. The drains discharge through culverts under Kiwi Street and then Tongaporutu Road and an open drain across the reserve into the Mangaroa River. (See Fig 1)

According to the Evaluation Framework these drains are public drains.

5.14 Tongaporutu Road Drain

This drain collects stormwater from the area at the western end of Tongaporutu Road. The drain is on the south side of the road and is located in the road reserve.

This drain discharges via a culvert under Tongaporutu Road, through a short length of open drain and into the Mangaroa River. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

5.15 Ohura West Drainage Reserve

This drain services a low lying area of rural land and discharges into the railway drain. This drain may have been maintained by the former Ohura Town Board. (See Fig 1)

The owner of the land which the drainage reserve passes through has been made several requests to Council to have this drain cleaned, but was refused as the drain was of no benefit to Council.

According to the Evaluation Framework this drain is a public drain. (See 4.2.6) and therefore Council have an obligation to maintain it.

5.16 Taranui Road Watercourse

This watercourse commences on the south side of Taranui Road and flowing in an easterly direction it is piped under Taranui Road after which it flows across private property to discharge into the top end of the Railway Drain. (See Fig 1)

According to the Evaluation Framework this is a natural watercourse throughout its length (See 4.2.1) and the maintenance of the stream channel is considered to be the responsibility of the owner of the property through which the stream passes. Council maintains the culvert under Taranui Road.

5.17 Tawa Street Drain

This is a short drain servicing the east end of Tawa Street. The watercourse crosses two private sections and discharges into the Mangaroa River. Stormwater run-off from Tawa Street into this watercourse is considered to be insignificant. (See Fig 1)

According to the Evaluation Framework this is a watercourse. (See 4.2.1) Council maintains the culvert under Tawa Street.

5.18 Williams Avenue Drain

This drain collects stormwater from two roadside sumps at the low point on Williams Ave. The sumps discharge into a culvert laid through a vacant section which discharges into an open drain at the rear of the section. The open drain flows in a westerly direction to discharge into the Waitewhena Stream. (See Fig 1)

According to the Evaluation Framework this drain is a public drain.

SECTION SIX

DRAINS AND WATERCOURSES MATIERE

NOTE **The township of Matiere is classified as a rural area and as such the public drains are maintained by the Roading Maintenance Contractor**

6 MATIERE

6.1 Kaka Street and Moko Street Drain

This drain is the main Matiere drain and provides drainage from rural farmland north and south of the township as well as Matiere Township itself. (See Fig 2)

It is debatable whether the culvert under the railway line will become Council's responsibility as the major function of the culvert is to service a rural catchment.

The culvert under Ohura Road will be maintained as part of the road structure. From Ohura Road the drain flows in a northerly direction on an unformed road (Kaka Street), crosses Titi Street and enters into a drainage reserve for approximately 120 m. The drain then leaves the drainage reserve where it turns onto Moko Street (unformed road) and flows in a westerly direction for approximately 300-400m where it discharges into the Ohura River.

Two Council maintained drains discharge into the drain on Moko Street.

The drain between Ohura Road and the Ohura River has in the past been maintained by Council. According to the Evaluation Framework this is a public drain. (See 4.2.4)

6.2 Whanui Street Drain

This drain is located on road reserve and provides drainage to a very wet area between Ohura Road and Titi Street as well as collecting stormwater from roadside drains. This drain has been maintained by Council in the past. (See Fig 2)

According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

6.3 Matiere Central Drain

This drain starts as the outlet to a very low lying wet area behind the garage between Ohura Road and Titi Street. The drain also takes stormwater from Titi Street. The drain crosses private land from Titi Street to where it discharges into the main Matiere drain in Moko Street. This drain has been maintained by Council in the past. (See Fig 2)

According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

6.4 Tui Street and Titi Street Junction Drain

This drain starts as the outlet to a very low wet area lying behind the old Bank of New Zealand building between Ohura Road and Titi Street. The drain also takes stormwater from both Titi Street and Tui Street. (See Fig 2)

Most of this drain is located on road reserve and has in the past been maintained as a road drain. According to the Evaluation Framework this drain is a public drain. (4.2.4)

SECTION SEVEN

DRAINS AND WATERCOURSES TAUMARUNUI URBAN AREA

7.1 TAUMARUNUI TOWNSHIP

7.1.1 Hakiaha Street/Ongarue Bridge Outfall

This system collects stormwater from a large catchment which includes the western end of Hakiaha Street, Short Street, Rangaroa, Bell Road and Rangaroa Reserve. Runoff from the bush covered hillside surrounding the old Scout Den follows natural drainage paths to Bell Road where it passes through a 225mm concrete culvert and is diverted into an open drain which also collects runoff from the Incline. The open drain runs parallel to Bell Road and enters the stormwater network which also collects stormwater from the Rangaroa area before running down Short Street and across Hakiaha Street to discharge into the Ongarue River adjacent to the eastern abutment. (See Fig 3)

According to the Evaluation Framework this system is a public drain from the point where it enters the culvert under Bell Road to the outfall at the Ongarue River. (See 4.2.3)

NOTE: All outfalls are part of the public stormwater systems and are therefore classified as public drainage.

7.1.2 Miriama Street Outfall

The stormwater from Miriama Street, Hakiaha Street and the surrounding area is piped in a reticulated system for the full length of Miriama Street and discharges into the Ongarue River through a 750mm concrete culvert. (See Fig 4)

According to the Evaluation Framework this is a public drain. (See 4.2.5)

7.1.3 Huia Street Outfall

Stormwater from Huia Street and the surrounding residential area is piped in a reticulated system towards the Ongarue River through a 450mm concrete culvert. There is no fluming or drop manhole to prevent erosion of the surrounding bank which has taken place around the outlet to this culvert. (See Fig 4)

According to the Evaluation Framework this is a public drain. (See 4.2.5)

7.1.4 Taumarunui Street Outfall

Stormwater runoff from Taumarunui Street and the surrounding area is piped down to the Ongarue River past the Taumarunui Football Club Rooms where it is discharged into the river. Kerb and channelling at the end of the road reserve have not been maintained for some time. Discharge from the 300mm uPVC culvert is covered in old poplar branches and there is no fluming or drop manhole to prevent erosion of the surrounding bank. (See Fig 4)

According to the Evaluation Framework this is a public drain. (See 4.2.5)

7.1.5 Taumarunui Domain Drain

Stormwater from the piped system that starts at Maata Street is discharged into the head of the Taumarunui Domain Drain. Runoff from Bell Road, Morero Terrace, Hakiha, Miriama and Huia Streets is also piped into the drain as it runs around the edge of Taumarunui Domain. At the northern edge of the grandstand the drain enters a stormwater pipe that discharges into a second open drain near the BMX track in the Rod McLiesh Reserve which then discharges into the Whanganui River. (See Fig 5)

This drain is headed by a public stormwater system and is maintained by Council in the Domain. According to the Evaluation Framework this drain is a public drain right through to the Whanganui River. (See 4.2.5)

7.1.6 Turaki Street Drain

The Turaki Street Drain takes stormwater runoff via the kerb and channel running from Tumoana Street to Turaki Primary School. The open drain starts just past the primary school and leads to a 600mm concrete culvert that passes under the stopbank and discharges into the river reserve. From here another open drain flows out to the Whanganui River. Both drains have been maintained clear of vegetation and the headwall and floodgate are in good condition. (See Fig 5)

Stormwater runoff from roadside kerb and channeling is discharged into the head of the drain. According to the Evaluation Framework this drain is a public drain right through to the Whanganui River. (See 4.2.5)

7.1.7 Taitua Street Drain

Runoff from the Taumarunui Primary School Fields and Maata Street is piped into a covered stormwater system that runs through a number of private properties to the Taumarunui Domain Drain. Section owners paid for the drain to be laid through their properties. (See Fig 6)

Even though property owners paid for the drain it is classified as public drainage under Sections 446 and 447 of the Local Government Act 1974. It is therefore the responsibility of the Council to maintain the drain.

7.1.8 Maata Street Drain

Stormwater drainage from this area is conveyed through a 200mm concrete pipe to an open drain at the end of Maata Street. The stormwater runoff then enters a 900mm concrete pipe that passes under the stopbank and into the river reserve. The open drain, headwall and flood gates are all in good condition. (See Fig 5)

Runoff from a public stormwater system is discharged into this drain. According to the Evaluation Framework this drain is a public drain. (See 4.2.5).

7.1.9 Paraone Street Drain

Stormwater runoff from the Taupo Road Flyover area is conveyed through the surrounding reticulated system which discharges into an open drain in Lot 45 DP 8747. From this point the drain runs parallel to Paraone Street through the Sale Yard's holding paddocks and into two 1200mm concrete pipes that pass through the stopbank. The section of the drain through the Sale Yards is in reasonable condition apart from ponding at the boundary of the river reserve. This is due to the buildup of surplus material against the fence line and the invert level of the culverts. The section of drain in river reserve is clear and both the flood gates and headwall are in good condition. (See Fig 7)

Paraone Street Drain has a stormwater system discharging into it. According to the Evaluation Framework this drain is a public drain (See 4.2.5)

7.2 HOSPITAL HILL/KURURAU ROAD

7.2.1 Hospital Hill Drain

A reticulated stormwater system collects runoff from House Ave, part of Pei Te Hurinui Drive, Cross Street and Te Peka Street and discharges into the Hospital Hill Drain through an 18 inch pipe. A nine inch pipe draining stormwater from Kururau Road also discharges into the drain. The open drain consists of a small channel that runs down a gully towards the Ongarue River. The drain is dry during periods of fine weather but overflows when it is raining and the stormwater system is discharging runoff into it. A larger drain should be constructed that can take the stormwater from Te Peka. (See Figs 8

This is a natural watercourse, however the stormwater that is discharged into it causes flooding and scouring in the gully. According to the Evaluation Framework this drain is a public drain. (See 4.2.8)

7.2.2 Pei Te Hurunui Drain

This reticulated system collects stormwater from Byars Ave and Pei Te Hurinui Drive and discharges it into the Bullians Ave Watercourse on the right hand side of the driveway to the rural property off the end of Pei Te Hurinui Drive. (See Fig 8)

According to the Evaluation Framework this drain is a public drain. (See 4.2.5).

7.2.3 Cross Street Drain

A single stormwater sump at the western end of Cross Street discharges stormwater into the Bullians Ave Watercourse. (See Fig 8)

According to the Evaluation Framework this drain is a public drain. (See 4.2.5).

7.2.4 Bullians Avenue Watercourse

A natural watercourse flows in a southerly direction from rural land at the northern end of Bullians Ave. Stormwater runoff from the Pei Te Hurinui Drain as well as Cross Street, Bullians Ave and Little Road is directed into this watercourse. Another watercourse starts in the gully next to Bullians Ave Playground where it receives runoff from Kenheath Place. The two watercourses meet opposite the end of Little Road and eventually discharge into the Pongahuru Stream. (See Fig 8)

It is considered that the stormwater that enters these watercourses does not cause any significant effect and they should therefore remain classified as watercourses.

7.3 RANGAROA, GOLF ROAD AND LAIRDVALE ROAD

7.3.1 Mangakahikatoa Stream

The catchment for Mangakahikatoa stream is a large area of farmland at the end of Lairdvale and Simmons Roads. The stream runs under Simmons Road and along the golf course boundary before turning into a shallow gully that runs parallel to Golf Road. From here it passes through a number of properties and meets with the Rangaroa Stream at Lot 1 DPS 637. It then runs under Golf Road through Lot 2 DPS 30284 and out to the Ongarue River. An esplanade reserve runs along the right bank of the stream from Golf Road.

The Lyndon Jones, Falkner Park, Tuhua Domain, Lairdvale and New Road open drains as well as the Rangaroa Stream discharge into the Mangakahikatoa Stream. (See Fig 9)

The Mangakahikatoa Stream follows its natural course to the Ongarue River. The water discharged into the stream from other public drains does not cause any significant effect. The Mangakahikatoa Stream should therefore be classified as a watercourse.

7.3.2 Rangaroa Stream

Farmland at the end of Rangaroa Road provides most of the catchment for the Rangaroa Stream. The stream runs between Lairdvale and Rangaroa Roads passing a number of sections and collecting stormwater from Rangaroa Road, East Street and Lairdvale Road. Culverts pass under Rangaroa and Lairdvale Roads and the stream continues to Lot 1 DPS 637 where it flows into the Mangakahikatoa Stream. From this point the Rangaroa Stream runs under Golf Road through Lot 2 DPS 30824 and out to the Ongarue River. An esplanade reserve runs along the right bank to the stream from Golf road. (In 1993 version) 63 Rangaroa Road, Jilesen's and New Road drains as well as the Rangaroa Corner Watercourse all discharge into the Rangaroa Stream. (See Fig 10)

The Rangaroa Stream follows a natural channel to where it joins the Mangakahikatoa Stream. The stream does receive stormwater runoff from surrounding streets but the quantity is insignificant due to the catchment size. Due to the reasons mentioned above the stream should remain classified as a watercourse.

7.3.3 63 Rangaroa Road Watercourse

This open drain runs from farmland above Rangaroa Road to the Rangaroa Stream. The reservoir overflow discharges into the drain in Lot 2 DPS 53213. The drain enters a piped section which was installed by Council in 1997 on Lot 3 DPS 7299 which then flows under Rangaroa Road. Roadside sumps also collect and discharge stormwater into this drain which is in good condition either side of the road. (See Fig 10)

Runoff from this gully follows its natural path to the Rangaroa Stream. Overflow from the reservoir overflow pipe and runoff from Rangaroa Road does not significantly alter the watercourse.

According to the Evaluation Framework this is a natural watercourse although Council is responsible for the maintenance of the piped section through Lot 2 DPS 7299 and under Rangaroa Road.

7.3.4 Jilesen's Watercourse

A subsoil drain collects water from under Lot 14 DPS 44630 (Jilesen's) and is directed into a gully above Rangaroa Road. From here a culvert runs under the road and discharges into Sec 11 Blk 1 Rangaroa Village. The watercourse then continues to the Rangaroa Stream. (See Fig 11)

This stream tributary runs in a natural gully towards the Rangaroa Stream and should remain classified as a watercourse although Council is responsible for the maintenance of the piped section under Rangaroa Road. The subsoil drainage under the Jilesen's property is private drainage.

7.3.5 Rangaroa Corner Watercourse

A reticulated system collects stormwater from Rangaroa Road which is discharged into a watercourse that flows towards Rangaroa Stream from the intersection of East Street and Rangaroa Road. The watercourse passes through four properties before discharging into the Rangaroa Stream. (See Fig 10 & 11)

This watercourse runs in its natural path towards the Rangaroa Stream. It is not considered that stormwater that is discharged into this watercourse has any significant effect. It should therefore remain classified as a watercourse.

7.3.6 Falkner Park Outfall

Stormwater from the southern end of Roslyn Street flows in an open drain to an inlet to a culverted section at the northern end of Falkner Park. This together with stormwater from roadside sumps in Falkner Park, along with subsoil drainage from

under the park flows into the reticulated system and is discharged into an open drain at the western end of Falkner Park which runs a short distance to the Mangakahikatoa Stream. The outlet section of the piped drain was found to be in poor condition and was upgraded in 2002. The inlet to the piped section also requires attention to prevent the ingress of debris which could cause blocking of the system. (See Fig 9)

The Falkner Park outfall and drain has been constructed by Council and receives water from a public stormwater system. According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

7.3.7 Roslyn Street Reserve Drain

Stormwater collected in roadside sumps at a low point on Roslyn Street is piped to discharge into an open drain which flows through the Roslyn Street Reserve. This drain then enters another piped section which joins the Lairdvale Road Drain at a junction manhole on Seath Ave. (See Fig 9 & 12)

According to the Evaluation Framework this drain is a public drain. (See 4.2.5).

7.3.8 Lairdvale Road Drain

Stormwater from a large catchment area consisting of farmland on the eastern side of Lairdvale Road discharges into stormwater pipes on Lairdvale Road. This drain which begins at the Roslyn Street intersection also collects stormwater from Lairdvale Road, Seath Ave, Falkner Park, Hillsvieview and Puketapu Crescents and consists of both piped and open sections of drain in varying condition. The badly overgrown open drain runs for a short length through to another piped section under Hillsvieview Crescent. From here a well maintained open drain passes through Lot 8 DPS 637 and into a 600mm pipeline that discharges into the Mangakahikatoa Stream. (See Fig 9 &10)

Stormwater from the Lairdvale area stormwater system discharges into this drain. According to the Evaluation Framework this is a public drain to the point where it discharges into the Mangakahikatoa Stream.

7.3.9 Lyndon Jones Watercourse

The catchment for this watercourse is provided by farmland above Lairdvale Road. The watercourse is piped under the road and through Lot 15 DPS 1855 collecting stormwater from Lairdvale Road and Boles Street. The culvert discharges into a swampy gully which passes through five properties to the recreation reserve and discharges into the Mangakahikatoa Stream. (See Fig 12)

The Lyndon Jones Watercourse runs in its natural path to the Mangakahikatoa Stream. Stormwater has no significant effect on this stream tributary therefore it should remain classified as a watercourse. The reticulated stormwater system from Boles Street and Lairdvale Road as well as the culverted section under Lairdvale Road and Lot 15 DPS 1855 is maintained by Council.

7.3.10 Taringamotu Road Drain

Stormwater runoff from the top end of Golf Road as well as Taringamotu Road is channeled via a roadside drain and sumps into a section of open drain that runs along the golf course's northern boundary fence adjacent to Taringamotu Road. At the intersection with Simmons Road it enters a culverted section that runs under the verge of Simmons Road, picking up stormwater from two roadside sumps and discharging onto the third fairway of the golf course after passing through Lot 4 DPS 10771. Flow from this drain runs through the golf course to the Tuhua Domain Drain. (See Fig 13)

According to the Evaluation Framework this drain is a public drain to the point where it discharges onto the golf course. After this it follows the natural fall of the land through the golf course and is not a clearly defined drain. (See 4.2.5).

7.3.11 Tuhua Domain Drain

The catchment for this drain is approximately 60 acres, which includes Simmons Road, the golf course, Golf Road, Corlett Street, Hall Crescent and surrounding areas. Stormwater which is piped from the golf course and Golf Road between Hall Crescent and Taringamotu Road enters an open drain at the boundary of the Tuhua Domain and golf course. The open drain runs along the western boundary of the Tuhua Domain adjacent to Golf Road picking up stormwater from roadside sumps on Golf Road between Manson Street and Hall Crescent. The drain then flows into an overgrown gully which runs out to the Mangakahikatoa Stream. (See Fig 14)

According to the Evaluation Framework the Tuhua Domain Drain is a public drain that flows into a watercourse. The watercourse starts in the natural gully that heads towards the Mangakahikatoa Stream.

7.3.12 Manson Street Outfall

Stormwater collected from a sump in the cul-de-sac at the end of Manson Street is piped through the property at No.44 Manson Street to discharge into the gully at the rear of the section which flows steeply down to the Ongarue River. Due to the steepness and pumice ground conditions, the discharge point can be subject to severe scouring. (See Fig 14)

According to the Evaluation Framework this drain is a public drain. (See 4.2.5).

7.3.13 Weston's Watercourse

This drain originates from two roadside sumps on Ruapehu Crescent. Both sumps discharge into a natural valley and watercourse which passes through the Weston and Warren properties before entering a private drain across Topless's property to the discharge point into the Ongarue River. (See Fig 15)

According to the Evaluation Framework the drainage system is a natural watercourse and a private drain throughout its length.

Council have had some responsibility to maintain and repair any damage caused by the stormwater discharge from Ruapehu Crescent.

7.3.14 New Road Drain

Stormwater runoff from Golf Road and New Road form the start of the open drain. The shallow drain runs along the side of the reserve and collects stormwater piped from the upper end of Campbell Street which is discharged into the drain at this point. The drain then runs through the back of Lots 24 and 25 DPS 9650 before entering a concrete stormwater pipe that runs through the rear of Lots 48 – 62 DPS 11025. Stormwater from the lower end of Campbell Street is collected by two roadside sumps and discharged through Lot 59 DPS 11025 to join the piped section at a manhole. The piped section discharges into an open drain which becomes a natural gully through Lot 28

Stormwater collected from a sump in the cul-de-sac at the end of New Road is piped through the properties at Lots 8 and 9 DPS 792 to discharge into the same gully at the rear of the section which flows steeply down to the Mangakahikatoa Stream. (See Fig 15)

Council installed and maintains all sections of open and piped drain. According to the Evaluation Framework the New Road Drain is a public drain right through to the Mangakahikatoa Stream although the culvert that has been installed under the embankment that forms the driveway to No.98 Golf Road is the responsibility of the property owner.

7.3.15 Ward Street Drain

The Ward Street Drain starts in a wet swampy section near the Golf Road Roundabout and passes through a number of properties as it flows down the natural gully between Ward Street and Golf Road. The 23 Golf Road drain is channelled into the Ward Street drain at Lot 3 DPS 26205. The open drain continues down the gully until it enters a piped section that passes under Ward Street and intersects a privately laid pipe section that discharges behind the old KB Transport depot. From here a short section of open drain runs to a culvert that passes under the railway and discharges into the Ongarue River. (See Fig 16)

In the past flooding was experienced at the lower end of this drain due to blockages in the piped section and at the discharge point. More frequent maintenance appears to have alleviated this.

Currently the Ward Street drain is considered to be a public drain up to the point where the 23 Golf Road Drain discharges into it and from there on it is considered to be a private drain although Council has maintained a portion of this drain up to the boundary of No.59 Ward Street (Robertson's). The private section of this drain could be declared public under Section 462 of the Local Government Act 1974.

According to the Evaluation Framework this drain is considered to be a public drain from the point where the 23 Golf Road Drain discharges into it to the outfall at the Ongarue River. (See 4.2.8)

7.3.16 23 Golf Road Watercourse

The watercourse which starts from a swampy area in Lot 6 DPS 17002, runs down the gully next to Ranui Rest Home and discharges into the Ward Street Drain. Stormwater from North and West Streets is channelled through a piped section that discharges into the watercourse at Lot 1 DPS 6944. The watercourse in this property is well maintained and flows into a stormwater system that runs under Golf Road. Further stormwater is collected at this point and the piped section discharges into the Ward Street Drain. (See Fig 16)

Council have cleared this watercourse under an agreement with the owner.

According to the Evaluation Framework this drain is a public drain from the North Street discharge point to where it joins the Ward Street Drain.

7.4 MATAPUNA

7.4.1. Sale Yard Drain

The Sale Yard Drain collects water from an area consisting of farmland on the northern side of Bell Road. The stream from the catchment flows through a culvert under Bell Road, into an open drain through railway property, through a culvert under State Highway 4, into another open drain through railway property, through another culvert under the railway line and into a piped section from the railway boundary to the sale yards. At the discharge from the piped section an open drain then runs through the sale yards and enters a culvert that passes under the stopbank. A headwall and floodgate exist at the outfall of this section. The piped and open drain sections as well as the headwall and floodgate are in good condition. (See Fig 17)

According to the Evaluation Framework this is a public drain from the railway boundary to the Whanganui River (See 4.2.4). The tributary drain that runs from the sale yards into this drain is private drainage.

7.4.2. Sale Yard No.2 Drain

Runoff from the effluent pond and surrounding paddocks of the sale yards runs into an existing 300mm concrete pipe that passes under the stopbank and into the river reserve. The inlet to the culvert has become blocked and there is no headwall or floodgate constructed on the outlet. For the culvert to become fully functional the open drain leading to the culvert needs excavating and cleaning and the culvert needs a headwall and floodgate constructed on the outlet. (See Fig 17)

This drain is solely for the drainage of the sale yards and has been constructed by someone other than Council. According to the Evaluation Framework this is a private drain.

7.4.3. Sale Yard No.3 Drain

Stormwater runoff from the sale yards is channeled through a shallow concrete drain to a 300mm culvert through the stopbank. The open drain leading up to the culvert has deposits of silt material restricting the flow. The floodgate situated on the outlet of this culvert is operational. (See Fig 17)

This drain is solely for the drainage of the sale yards and has been constructed by someone other than Council. According to the Evaluation Framework this is a private drain.

7.4.4. Housing Corporation Drain

The stormwater runoff from behind Ray Neilson Automotive Engineering on Bell Road and neighbouring properties is channeled through an open drain towards State Highway 4 where it turns a right angle and runs into a roadside drain. From here the drain enters a culvert under State Highway 4 and the railway line, discharging into an open drain in Lot DPS 11146. The open drain curves around the back of this property and enters a culvert under the Housing Corporation flats, under Taupo Road, through a private section and into the river reserve. Cleaning of the open drains mentioned above (including the roadside drain) has been carried out by Council to clear excessive build-up of silt material and weed growth which causes the State Highway 4 culvert block. Repairs to the floodgate at the final outlet were carried out in June 2002. (See Fig 17)

The culverted section through the Housing Corporation area was installed by Housing Corporation when the section was developed and consists of a rib-lock type plastic pipe which is a poor quality pipe and not expected to have a long life. This is not considered to be Council's responsibility.

According to the Evaluation Framework this is a public drain from the point of stormwater discharge at the east end of Bell Road through to the Whanganui River.

7.4.5. 160 Taupo Road Watercourse

This watercourse collects all natural drainage and stormwater runoff from approximately 200 acres of farm land located on the northern side of State Highway 4. The drainage from this area follows a natural path down towards State Highway 4 where it enters a culvert that passes under State Highway 4 and the railway. Discharge from the culvert enters a watercourse that flows through a number of properties finishing at the edge of the road reserve where stormwater is conveyed through a box culvert under Taupo Road and the stopbank. (See Fig 17)

This water course follows its natural path towards the Whanganui River and has not been maintained by Council. The responsibility therefore lies with the property owners of the sections that the watercourse passes through. Council is only responsible for this watercourse from the inlet to the culvert under Taupo Road.

According to the Evaluation Framework this is a watercourse. (See 4.2.1)

7.4.6. Tuku Street Drain

The Tuku Street drain collects drainage and stormwater runoff from a large catchment of farmland located on the northern side of State Highway 4. Drainage from this area flows through two separate culverts that pass under the highway and railway. An open drain starts at the Scout/Girl Guide Hall on O'Reilly Crescent and flows parallel to the railway line towards the Tuku Street Domain in railway property, collecting the discharge from these two culverts. An agreement to construct this drain on railway property was made in 1936 between the Crown and the Borough of Taumarunui (See Section 4). The drain then crosses one private section and is culverted under Tuku Street. From this point the drain curves behind the Domain and passes through a culvert under Taupo Road and into the river reserve. (See Fig 18)

The open drain from the railway running behind the Tuku Street Domain has been sprayed to maintain weed growth within the drain. The box culvert passing under Taupo Road was also cleaned and the outfall from this culvert has been upgraded due to repairs on the stopbank by the Manawatu Wanganui Regional Council although there is no floodgate on the outlet end of the culvert. (See Fig 18) The drain between the railway and the river was maintained by the former Taumarunui Borough Council from the time of its construction until the mid 1980's.

The deed between the Crown and the Taumarunui Borough means this drain is a public drain while it runs in railway property and therefore must be a public drain right through to the Whanganui River. The drains discharging into the Tuku Street Drain through culverts under the highway and railway line are considered to be private drains to the points of discharge.

7.4.7. Reu Street Drain

The Reu Street stormwater system collects all runoff from the Reu Street and Taupo Road residential areas and discharges into an open drain on the southern side of the stopbank. The open drain runs towards the river through river reserve. The floodgate at the outlet was checked and repaired in June 2002. The open drain is in good condition. (See Fig 19)

Reu Street Drain collects runoff from a public stormwater system and is maintained by Council. According to the Evaluation Framework this is a public drain. (See 4.2.4)

7.4.8. Porou Street Drain

Porou Street stormwater system collects all the runoff from the Porou Street and Taupo Road residential areas. Discharge from the outfall enters an open drain that runs across river reserve to the Whanganui River. The floodgate was checked and repaired in June 2002 and the open drain running through the river reserve is in good condition (See Fig 19)

Porou Street Drain collects runoff from the public stormwater system and is maintained by Council. According to the Evaluation Framework this is a public drain. (See 4.2.4)

7.4.9. Para Street Drain

The Para Street drain collects all the drainage and runoff from a small catchment of farmland (approximately one acre) which is situated on the northern side of State Highway 4. An open drain runs parallel to State Highway 4 towards a culvert that passes under the highway. There is a small section of open drain between the highway and the railway culvert. Discharge from the Railway culvert enters an open drain which also collects runoff from an area of low lying vacant sections behind Para Street and Napier Tanning. From here the open drain conveys the runoff and drainage into a section of 450mm dia. concrete pipes which was installed by Council in 2002 through Lot 4 DP19446 (No.10 Para St) which discharges into the Para Street stormwater system. At the outfall of the piped stormwater system the discharge enters an open drain that runs through river reserve. The floodgate at the outfall of the Para Street system was repaired in June 2002 (See Fig 20)

This is a public drain from the point of discharge from the railway culvert to the Whanganui River excluding the private tributary that drains the area behind Para Street. Council will not be responsible for the maintenance of the culverted section which has been constructed from 44 gallon drums under Lots 1 & 2 DPS 7380 (No's. 2 & 4 Para St). The property owner is responsible for the maintenance of the culvert through the property.

7.4.10. BP Road Drain

Catchment for this drain comprises approximately 50 acres of hillside farmland near the Matapuna Reservoir, on the northern side of State Highway 4. Stormwater from this catchment area enters two separate culverts which pass under State Highway 4. These culverts discharge into an open drain that runs towards the river before turning a right angle and entering a culvert that passes under the railway line. At the outfall of this culvert there is a short section of open drain before the inlet to the stormwater system. From here the water is piped under BP Road, a private section, the old Ministry of Works depot, a second private section, under Taupo Road and out to the river reserve on the southern side of the stopbank. At the outfall of the stormwater system a floodgate and headwall are in place and an open drain runs through the river reserve towards the river. The section under the private section was laid by J Basheru approximately forty years ago. The open drain between the floodgate and river has been cleared and the floodgate and headwall were repaired in 2002. There are two known stormwater connections to this system, one from Richardson's property and the other from the ex MOW Depot. (See Fig 20)

According to the Evaluation Framework this is a public drain from the point of discharge from the railway culvert to the Whanganui River.

7.5 MANUNUI

7.5.1 Camping Ground Drain

Stormwater from the west end of Miro Street is collected by roadside sumps and discharged into an open drain that flows through the Manunui Domain, around the boundary of the Manunui Camp Ground and out to the Whanganui River on the upstream side of the highway bridge. The drain has been maintained by Council in the past and has been recently sprayed. (See Fig 21)

This drain collects stormwater runoff from Miro Street. According to the Evaluation Framework this is a public drain. (See 4.2.4 and 4.2.5)

7.5.2 Manunui Straight Roadside Drain

The catchment for this drain is farmland on the southern side of the Manunui Straight. A culvert passes under the railway line at the AFFCO boundary and the open drain which runs between the highway and the railway line runs through a culvert under Racecourse Road before discharging into the Whanganui River between the road and railway bridges. The drain is maintained by Transit's roading maintenance contractor from the railway onwards and is generally in good condition. Runoff from State Highway 4 is also collected in this drain. (See Fig 21)

During heavy rain, flooding of the highway can occur at the intersection with Miro Street. An overflow pipe was installed in recent years from the drain discharging into the Camp Ground Drain.

According to the Evaluation Framework this drain is a private drain.

7.5.3 Railways Drain

The Railways Drain collects water from beside the main trunk railway line and after passing under Racecourse Road discharges into the Whanganui River downstream of the railway bridge. The drain is in railway land and has the AFFCO Drain flowing into it. (See Fig 21)

This is Railway's private drainage but could possibly become the responsibility of Council under the Railway Safety and Corridors Management Act 1992. Council has not previously maintained this drain.

7.5.4 AFFCO Drain

The AFFCO Drain has a large catchment area comprising farmland behind the old AFFCO works. An open drain runs towards, and discharges into the Railways Drain. The drain is in good condition and seems to be well maintained. (See Fig 21)

According to the Evaluation Framework this is a private drain.

7.5.5 Maukuroa Stream (Matai Street Drain)

The Maukuroa Valley at the end of Valley Road provides the catchment for the Maukuroa Stream. The stream follows the natural gully parallel to Valley Road and passes under Tawa and Matai Streets. At this point the stream is diverted and runs in an open drain parallel to the railway line in railway property. The drain continues in a straight line for approximately 800m before turning under the railway line and through a culvert under State Highway 4. From State Highway 4 the drain flows through a number of properties between State Highway 4 and Miro Street, under Miro Street, and out to the Whanganui River. Matai Street and State Highway 4 drains both discharge into the Maukuroa open drain. (See Figs 22, 23 & 24)

The section of drain which runs parallel to the railway has become Council's responsibility under the Railway Safety and Corridor Management Act 1992 (Section 2). This drain has been poorly constructed by NZR and problems arise at a number of points along the drain. The drain passes through a double six foot and a number of single six foot culverts alongside the railway line and under the highway which are not big enough to take the flow in periods of heavy rain and cause flooding in the upstream properties. Further downstream in the private properties between State Highway 4 and Miro Street the drain has been channelised in some sections and some owners are losing sections due to erosion caused by the drain. The culvert under Miro Street also causes flooding of adjoining sections during periods of heavy rain.

The drain has become a liability to Council due to the state in which it was handed over. In recent years Council has carried out maintenance on the drain between Matai Street and the Whanganui River and removes silt from the section between Matai Street and the Rata Street culvert on a regular basis.

This stream is considered to be a watercourse down to where it passes under Matai Street. From this point the drain is considered to be a public drain to its outfall at the Whanganui River.

7.5.6 Matai Street Drains

Several open drains channel water from properties above Matai Street into a 300mm concrete stormwater pipe which discharges into the Maukuroa Stream immediately upstream of the Matai Street twin culverts. An open roadside drain at the west end of Matai Street runs into a concrete culvert that also discharges into the Maukuroa Stream approximately 130m downstream from the Matai Street crossing. (See Fig 22)

According to the Evaluation Framework the open drains channelling water into the Matai Street stormwater system are all private drains, however the roadside drain is public drainage.

7.5.7 State Highway 4 Drains

Stormwater runoff from the highway is collected in an open drain on the southern side of the highway and in a piped system on the northern side. These drains run in a westerly down either side of SH 4 and discharge into the Maukuroa Stream immediately up and downstream of the highway culvert. (See Fig 23)

These drains are maintained by Transit New Zealand and according to the Evaluation Framework are private drains.

7.5.8 Kowhai Drive Watercourse

This watercourse is on private land and drains the Kowhai Drive area and the steep catchment behind it. The watercourse enters a reticulated system which collects stormwater from Waikura Terrace and Titoki Street and discharges it into the Manunui Club Drain. (See Fig 22)

This is considered to be a watercourse and is therefore the responsibility of the property owner until it enters the reticulated stormwater system where it becomes a public drain.

7.5.9 Manunui Club Drains

Stormwater from Waikura Terrace, Titoki Street and the Manunui Club carpark flows into a deep open drain. The drain runs between the railway and the Manunui Club property to a stone culvert that runs under the railway line and State Highway 4 and discharges into an open drain on the river side of State Highway 4. From here the drain flows out to the Whanganui River. A second drain that runs around the back of the club collects water from the slope below Waikura Terrace and joins the drain at the culvert. (See Fig 22)

The open drain at front of the Club collects runoff from a public stormwater system and according to the Evaluation Framework this is a public drain. (See 4.2.5)

The drain at the back of the Club is considered to be a private drain.

7.5.10 Fertiliser Depot and Timber Company Drains

These drains are roadside drains and therefore come under the roading authority (Transit New Zealand). The Fertiliser Depot and Timber Company Drains run under State Highway 4 and State Highway 41 respectively before discharging into the Whanganui River. (See Fig 22)

These drains are maintained by Transit New Zealand and according to the Evaluation Framework are private drains. The open drain from the discharge of the Timber Company Drain, on the northern side of Miro Street to the Whanganui River below the Manunui Bridge approach, is considered to be a public drain.

7.5.11 Manunui Domain Drain

Stormwater from roadside sumps on Miro Street is piped into a manhole on Sec 139 Manunui Village Settlement. From here the stormwater is piped a short distance to an open drain in Sec 140 that flows out to a swampy area of land. (See Fig 23)

This drain collects runoff from a public stormwater system. According to the Evaluation Framework this is a public drain all the way to the Whanganui River.

7.5.12 Miro Street Outfalls

Stormwater collected from a number of roadside sumps along Miro Street is piped through various private properties to the lower lying area to the north of Miro Street. (See Fig 23)

These drains collect stormwater runoff from Miro Street and according to the Evaluation Framework are considered to be public drains. (See 4.2.4 and 4.2.5)

7.5.13 Mahoe Road Drain

Stormwater collected from an open drain from Lot 1 DP 32370 and two roadside sumps at the low point on the kerb and channeled section of Mahoe Road is discharged piped sections under Mahoe Road into an open drain on Lot 5 DP 24781. (See Fig 25)

This drain collects stormwater runoff from Mahoe Road and according to the Evaluation Framework is considered to be a public drain. (See 4.2.4 and 4.2.5)

7.6 HIKUMUTU

7.6.1 Hikumutu Road Drains

There are a number of roadside sumps along Hikumutu Road between Victory bridge and Sunshine Road which collect stormwater and discharge it over the embankment into the Whanganui River or the adjacent reserve area. (See Fig 26)

These are all considered to be public drains.

The area past the junction with Sunshine Road is considered to fall within the rural area and all roadside drainage and culvert crossings are maintained by the roading maintenance contractor.

7.6.2 Sunshine Watercourse

Runoff from the hillside above Sunshine Settlement flows in a natural gully down towards Hikumutu Road. The flow is piped through a culvert under the upper section of Sunshine Road where it receives some runoff from the road. The gully is also piped under the lower section of Sunshine Road where additional runoff from

the kerb and channel is diverted into the watercourse. It flows next to the Sunshine sewer pump station and through a culvert under Hikumutu Road before being discharged down the road embankment via a corrugated flume to the river reserve.

It is considered that stormwater discharged from Sunshine Road has no significant effect on the flow in this watercourse and therefore according to the Evaluation Framework it is classified as a watercourse. (See Fig 26)

7.6.3 Marsack Road Drains

There are a number of roadside drains and culvert crossings along Marsack Road between Victory Bridge and Racecourse Road. This section of road is considered to fall within the rural area and all roadside drainage and culvert crossings are maintained by the roading maintenance contractor.

7.6.4 Racecourse Road Drains

There are a number of roadside drains and culvert crossings along Racecourse Road between the old AFFCO carpark entrance and Marsack Road. This section of road is considered to fall within the rural area and all roadside drainage and culvert crossings are maintained by the roading maintenance contractor.

SECTION EIGHT

DRAINS AND WATERCOURSES PIRIAKA

8. PIRIAKA

8.1 Piriaka Springs Watercourse

Water from the Piriaka Springs runs down a roadside drain and under State Highway 4 via two separate culverts. These culverts discharge into a natural watercourse that passes under Ruruku Road, the North Island Main Trunk Line, Taitua and Tuka Streets before discharging into the Whanganui River. Stormwater runoff from State Highway 4 enters the watercourse however this is insignificant compared to the spring water flow. (See Fig 27)

The watercourse that takes the spring water towards the Whanganui River is not significantly effected by stormwater discharge. According to the Evaluation Framework this is a watercourse although the culverts under the roads in the Piriaka township are maintained by Council.

SECTION NINE

DRAINS AND WATERCOURSES KAKAHI

NOTE **The township of Kakahi is classified as a rural area and as such the public drains are maintained by the Roading Maintenance Contractor**

9. KAKAHI

9.1 Whakaraparapa Stream

This natural watercourse which flowing from the northern end of the township passes through a culvert under Te Rena Road near the intersection with Totika Road and under Ako Street near the intersection with Waitea Branch Road before discharging into the Kakahi Stream. (See Fig 28)

The Whakaraparapa Stream is considered to be a natural watercourse. Council maintain the culverts where the stream passes under the road.

9.2 Harrison's Drain

The upper part of this drainage system is a natural watercourse. This watercourse was blocked off near Whakapapa Road by a private land owner in the mid 1970's which resulted in a pond forming in neighbouring property.

In the late 1980's an agreement was reached with Ken Harrison to divert the ponding water by excavating a drain through his property, under Whakaraparapa Road and discharging into the Te Rena Road Drain. (See Fig 28)

This is a public drain from the diversion on Harrison's property to the point of discharge into the Te Rena Road Drain.

9.3 Te Rena Road Drain

An open drain runs in a northerly direction along the eastern side of Te Rena Road from the intersection with Whakapapa Road and after crossing under the road through a culvert, discharges into the Whakaraparapa Stream. This drain also collects water from Harrison's Drain. (See Fig 28)

This drain collects stormwater runoff from Whakapapa and Te Rena Roads and according to the Evaluation Framework is considered to be a public drain. (See 4.2.4 and 4.2.5)

9.4 Kakahi Township Roadside Drains

There are a number of shallow roadside drains and culverts alongside the various roads within the Kakahi Township. These drains convey stormwater runoff from the road and adjacent properties and eventually discharge into either the Kakahi or Whakaraparapa Streams.

These drains form part of the stormwater system and consequently where they are within the road reserve are considered to be public drains.

SECTION TEN

DRAINS AND WATERCOURSES OWHANGO

10. OWHANGO

10.1 Onematua Road Drain

This drain is located within the road reserve on the northern side of Onematua Road and provides drainage from near the intersection with Oioi Street discharging into the Owango West Watercourse on the western side of the North Island Main Trunk Line. (See Fig 29)

According to the Framework Evaluation this is a public drain. (See 4.2.6)

10.2 Owango West Watercourse

This is a natural watercourse which flows through the western side of Owango providing drainage to farmland south of the township and west of the NIMTL. The watercourse flows through private property and through culverts under Owango and Onematua Roads. This watercourse has been altered and piped in various places by private landowners. This natural watercourse also receives stormwater from State Highway 4, Onematua Road and Ohoeka Street although their effect on the flow in the watercourse is considered insignificant. (See Fig 29)

According to the Evaluation Framework this is a watercourse, however the culverts are maintained by Council at the points where they pass under Owango and Onematua Roads.

10.3 Ohoeka Street Drain

This drain provides drainage from a road culvert at a low point on Ohoeka Street. The open drain passes along the eastern side of Section 10 and 11 then along the northern boundary of Section 11 to discharge into the Owango West Watercourse. (See Fig 29)

According to the Evaluation Framework the Ohoeka Street drain is a public drain.

10.4 Railway Drain

This open drain collects stormwater from Owango Road on the western side of the NIMTL as well as off State Highway 4. It flows in a northerly direction from Owango Road parallel to the railway line and eventually discharges into the Owango West Watercourse. (See Fig 29)

According to the Evaluation Framework, this drain is a public drain. (See 4.2.5)

10.5 Omatane Road Drain

The drain is located within the road reserve on the southern side of Omatane Road and carries stormwater collected from State Highway 4 at the southern end of Owango to the discharge point at the Owango East Watercourse. (See Fig 29)

According to the Evaluation Framework, this drain is a public drain. (See 4.2.5)

10.6 Owhango East Watercourse

This is a natural watercourse which flows through the eastern side of Owhango Township. The watercourse provides natural drainage for the farmland to the south of the township and east of State Highway 4. (See Fig 29)

The watercourse flows through a culvert under Omatane Road and into a section of open drain on the western side of Okioi Street before entering another piped section which discharges into an open drain on the northern side of Owhango Road. The watercourse then flows through private property between Owhango and Omaki Roads, through a culvert under Omaki Road and into private property again before entering the Owhango Domain where it enters another piped section before being discharged into another open drain which eventually discharges into the Ohinetonga Reserve area.

According to the Evaluation Framework this is a watercourse, however Council maintains open drain and piped sections of this watercourse which are located on road reserve or Council owned property (Owhango Domain).

10.7 Owhango Domain Drain

Stormwater from Onepu Road and Ohorere and Okioi Streets flows in roadside water tables to the intersection of Onepu Road and Okioi Street where it flows through culverts under these roads and into an open drain that has been excavated around the northern boundary of the Owhango Domain. This drain discharges into the Ohinetonga Reserve area. (See Fig 29)

According to the Evaluation Framework this is a public drain.

10.8 State Highway 4 Discharge Drains

Stormwater is collected via roadside sumps on the eastern side of State Highway 4 and piped under the highway, across the reserve area, through a culvert under the North Island Main Trunk Railway and discharge into the Owhango West Watercourse on the western side of the railway. (See Fig 29)

According to the Evaluation Framework this reticulated system is considered to be a public drain.

Council is also responsible for the maintenance of the culvert which passes under the railway under the Railway Safety and Corridor Management Act 1992.

NOTE: Virtually none of the roads in the Owhango Township have kerb and channel or clearly defined roadside drains or channels. There are areas where stormwater ponding occurs during rain events due to the inadequate drainage in these areas.

There are also a number of culverts that carry stormwater under various roads. These culverts are considered to be public drains and are maintained by Council.

SECTION ELEVEN

DRAINS AND WATERCOURSES RAURIMU

11. RAURIMU

11.1 Northern Watercourse (Wilson's Creek)

This watercourse flows off the hillside to the east of Raurimu and after passing under the railway line collects water from the Raurimu Road Drain before flowing through a culvert under Raurimu Road and joining another watercourse which collects water from the Poro Street Drain No.2 before discharging into the Piopioatea Stream. (See Fig 30)

The watercourse is not significantly effected by stormwater that is discharged into it. According to the Evaluation Framework this is a watercourse (See 4.2.1) although Council maintains the culvert where the watercourse flows under Raurimu Road.

11.2 Raurimu Road Drain

This drain has been constructed on road reserve behind the roadside fence and runs from the southern end of Raurimu Road through to the Northern Watercourse. The drain collects runoff from the surrounding land and forms a structural part of the road. (See Fig 30)

This drain was constructed and has been maintained by Council. According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

11.3 School Watercourse Drain

Runoff that flows down a natural gully towards Poro Street has been diverted to run down the road reserve next to the school reserve and into the Piopioatea Stream. Stormwater from the road is discharged into this drain. (See Fig 30)

According to the Evaluation Framework this watercourse becomes a public drain from the point where it is diverted near the corner on Raurimu Road to the point of discharge into the Piopioatea Stream. (See 4.2.4)

11.4 Poro Street No.1 Drain

Poro Street No.1 Drain starts in road reserve at the southern end of Poro Street. The drain runs down Poro Street collecting stormwater from small private drains that drain the surrounding properties. Poro Street No.1 Drain discharges into the Poro Street Watercourse. (See Fig 30)

Poro Street No.1 Drain is a roadside drain that has been constructed and maintained by Council and is classified as a public drain. Poro Street Watercourse is a natural gully that runs into the Piopioatea Stream. The watercourse is not significantly affected by stormwater that is discharged into it. According to the Evaluation Framework this is a watercourse. (See 4.2.1) The private drains on the surrounding roadside properties are the responsibility of the property owners.

11.5 Poro Street No.2 Drain

The top section of this drain has been constructed through private land for the purpose of draining the surrounding properties and crosses a number of properties before discharging into a natural watercourse. (See Fig 30)

Due to the number of properties involved and the difficulties experienced in co-ordinating all property owners at the one time when the drain requires cleaning, it is proposed that the top section of the drain be classified as a public drain.

According to the Evaluation Framework this drain is a public drain which becomes a natural watercourse at the northern boundary of Section 28. (See 4.2.8)

11.6 Hedgehog Haven Drain

This drain runs through two sections, (one of which being Hedgehog Haven Lodge) and then into the Pito Street Public Drain. (See Fig 30)

This drain is not a watercourse, but has been privately constructed and according to the Evaluation Framework this is a private drain to the point of discharge into the Pito Street Public Drain.

11.7 Pito Street Drains

- 1) The Pito Street Drain consists of a roadside drain which starts on Raurimu Road and runs along the eastern side of Pito Street to the low point where it enters the Pito Street culvert. The culvert discharges into a swampy area which is drained by an open drain down to the Piopotea Stream.

According to the Evaluation Framework the drain from the culvert to the point of discharge into the Piopotea Stream is a public drain. (See Fig 30)

- 2) A second roadside drain is located at the northern end of the road and discharges in a northerly direction into the Piopotea Stream. The drain is located behind a gate at the northern end of the road which the Council does not maintain. Although the drain is on road reserve, it is of no benefit to the road and has been privately constructed; it is therefore classified as a private drain.

11.8 Raurimu West Drains

Raurimu West roadside drain provides drainage for the length of Kaitieke Road south of Slalom Lodge and flows into the Raurimu West public drain. This drain is maintained as a roadside drain.

The Raurimu West public drain provides drainage for a low lying section of ground at the eastern side of Kaitieke Road at the junction with Doe Road. Water ponds on part Section 21 and drainage from this property is provided by a culvert under the old highway. Flow from the Raurimu West roadside drain enters the drain at this point which then flows in an open drain to discharge into the nearby watercourse.

According to the Evaluation Framework this drain is considered to be a public drain excluding the short length of drain on Section 21 which is private drainage. (See Fig 31)

A third drain within the system crosses part Sections 18, 19 and 20 and joins the public drain near the outlet of the culvert. This is a private drain. (See Fig 31)

SECTION TWELVE

DRAINS AND WATERCOURSES NATIONAL PARK

12. NATIONAL PARK

12.1 Carroll Street East Watercourse

This drain was a natural watercourse from the point where it started in a swampy area on the southern side of Millar Street to the point where it discharges into the Makaretu Stream. It provides stormwater discharge and land drainage for the eastern area of National Park Township. (See Fig 32) However, over the years it has been diverted by developers of the Park Lane Development, piped through a section of Venture Lodge, culverted under Millar and Carroll Streets by Council and deepened north of Carroll Street.

According to the Evaluation Framework this watercourse is now a public drain from the inlet to the culvert under Millar Street to the point where it reverts back to a natural watercourse at roughly the boundary of Lot4 DP73724. (See 4.2.1)

12.2 Buddo Street Drain

This roadside drain carries stormwater discharged from a sump at the intersection of Carroll and Buddo Streets as well as the residential properties along Buddo Street between Carroll Street and Turner Place and Turner Place itself. It curves around behind the Tongariro Timber Mill houses and discharges into the Carroll Street East Watercourse. (See Fig 32)

According to the Evaluation Framework, this drain is a public drain. (See 4.2.5)

12.3 Ward Street Drain

This drain collects stormwater run-off from Mackenzie Street and the Tongariro Timber Mill yard. The drain originates at the outlet of the culvert under Mackenzie Street and runs down the unformed section of Ward Street before discharging to flow overland to the natural low lying area and eventually through a culvert under the North Island Main Trunk Railway to the Makaretu Stream. (See Fig 32)

According to the Evaluation Framework, this drain is a public drain where it has been excavated on the unformed section of Ward Street. (See 4.2.5)

12.4 Carroll Street Stormwater Reticulation

A piped stormwater system runs down the southern side of Carroll Street from Buddo Street to Station Road where it passes under Carroll Street and discharges into an open drain. The open drain enters a culvert under the NIMTL at the north end of the Carroll Street railway crossing. This culvert serves as a collection point for approximately half of National Park's stormwater and transfers this water to the west side of the NIMTL. The railway culvert is now Council's responsibility under the Railway Safety and Corridor Management Act 1992. (See Fig 32)

According to the Evaluation Framework this drainage system is classified a public drain.

12.5 Station Road Drain

An open drain runs on the western side of Station Road between the road and the railway. This drain discharges at the northern end into Council's culvert under Carroll Street and at the southern end into a culvert under the NIMTL. This drain only provides drainage to the railway area. (See Fig 32)

According to the Evaluation Framework this drain is a private drain and therefore is not the responsibility of Council apart from the piped section under Carroll Street which is considered to be part of the reticulated system and therefore a public drain.

12.6 Millar Street Drain

Stormwater run-off from the school and sections of Millar and Buddo Streets accumulates at a low point on Buddo Street and is piped under Buddo Street. It then flows down a small open drain through private property to Mackenzie Street, through a culvert under Mackenzie Street, into an open drain down Millar Street to Ward Street and through twin culverts under Ward Street into another open drain. This drain collects other stormwater off both Millar and Ward Streets and extends over private property to the bottom of Findlay Street where it enters the Station Drain No.1. (See Fig 32)

According to the Evaluation Framework, this drain is a public drain from the inlet to the culvert under Mackenzie Street. (See 4.2.5)

12.7 Station Drain No.1

This drain commences at the corner of Findlay Street and Station Road and collects stormwater from the Millar Street and the Findlay Street North Drains. It passes under Findlay Street via a 1050mm diameter culvert for a distance of approximately 170m through the Railway Yard and under the North Island Main Trunk Railway south of the Station building. This section of the drain was probably piped with the development of the National Park Station in conjunction with the Tongariro Power Project. It is expected the culverted length will be in a good state. Although much of this drain is located on Railway land it provides drainage for a significant part of National Park Township and is therefore classified as a public drain. The Railway Corridor Act 1992 would also give the responsibility of the section of culvert under the North Island Main Trunk Railway to Council. (See Fig 32)

12.8 Findlay Street North Drain

This open drain which runs down the northern side of Findlay Street commences at the corner of Findlay and Mackenzie Streets, collects stormwater from the southern end of Ward Street, passes through a culvert under Ward Street and discharges at the inlet to the Station Drain No.1. (See Fig 32)

According to the Evaluation Framework, this drain is a public drain. (See 4.2.5)

12.9 Station Drain No.2

This drain starts at Findlay Street opposite the southern end of Ward Street and falling in a southerly direction extends past the south end of the National Park Station area. (See Fig 32)

This drain was probably installed as part of the development of the National Park Railway Station in conjunction with the Tongariro Power Project.

This drain does not provide any advantages to land other than the Railway Yard and is therefore classified as a private drain.

12.10 Findlay Street Drain

This drain collects stormwater via roadside sumps on the kerb and channeled section of Findlay Street which is piped to the western side of Kirk Street where it discharges into an open drain which runs down the southern side of Findlay Street collecting stormwater from the southern ends of Buddo and Mackenzie Streets. Opposite the junction with Ward Street the drain heads in a southerly direction and discharges into vacant land. (See Fig 32)

The drain forms an integral part of the drainage of National Park Township. According to the Evaluation Framework this drain is a public drain. (See 4.2.5)

12.11 Tongariro Place Drain

This drain collects surface water from a swampy area between Millar and Findlay Streets as well as the discharge from the sump at the end of Tongariro Place. It extends around the northern and western boundaries of Sec 6 Blk IX before entering a culvert under Findlay Street which discharges into the Findlay Street Drain at the intersection with Kirk Street. (See Fig 32)

It is not known who constructed this drain and there is no history of it being maintained by Council. It is not considered that the stormwater discharged into this drain from the sump at the end of Tongariro Place has any significant effect on the flow in the drain.

According to the Evaluation Framework this drain is therefore classified as a private drain apart from the piped sections from the sump at the end of Tongariro Place and under Findlay Street at the Kirk Street intersection which are considered to be public drains.

12.12 National Park South Drain

This drain collects stormwater from the water tables alongside Waimarino Road which then flows in a natural watercourse to the inlet to a piped section which collects stormwater from roadside sumps on Kirk Street. The pipe section discharges into an open drain at 14 Kirk Street which extends across a tussock area and joins a drain located on NZR property. (Findlay Street Drain) The National Park South Drain is formed in a natural drainage depression but has had a drain

excavated through the general area of the depression sometime in the past 10-15 years. This was probably done by the developers of the Kirk Street subdivision. (See Fig 32)

According to the Evaluation Framework this drain is a natural watercourse and therefore is not the responsibility of Council.

12.13 Schnapps Hotel Drain

This is a piped drainage system that collects surface run-off from the National Park Backpackers and Pukenui Lodge as well as Schnapps Hotel. A double roadside sump on the corner of Millar Street and SH4 collects road run-off which is piped to a junction manhole and then under SH4 to discharge into a natural watercourse on the eastern side of the highway. (See Fig 32)

This drainage system was constructed by the Ruapehu District Council in 2002 and consequently according to the Evaluation Framework, this drain is a public drain. (See 4.2.5)

12.14 State Highway Drains

Road run-off is collected in roadside sumps on Carroll and Findlay Streets near their intersections with SH4 and piped under the highway to discharge into a natural watercourse on the eastern side. (See Fig 32)

According to the Evaluation Framework, these drains are public drains. (See 4.2.5)

NOTE: A number of roads in the National Park Township have no kerb and channel or clearly defined roadside drains or channels. There is fairly extensive stormwater ponding throughout the township during rain events due to the inadequate drainage in these areas.

SECTION THIRTEEN

DRAINS AND WATERCOURSES RAETIHI

13. RAETIHI

13.1 Seddon Street Watercourse (Raetihi Stream)

The main watercourse in Raetihi collects runoff from swampy farmland located on the northern side of town off Seddon Street. The watercourse flows in its natural path that heads towards the Makotuku River. The Grey Street Watercourse joins the main watercourse at Ballance Street. From here the watercourse flows south through the centre of town collecting stormwater runoff from a number of streets before discharging into the Makotuku River. (See Fig 33)

The Seddon Street Watercourse follows its natural path through Raetihi. The runoff from the town's stormwater system is not considered to have a significant effect on the watercourse.

According to the Evaluation Framework this is a watercourse. Council is only responsible for the maintenance of the culverts under the various streets which the watercourse passes through. (See 4.2.1)

13.2 Grey Street Watercourse

The Grey Street Watercourse commences in a swampy area in a property west of Grey Street and collects runoff from a roadside drain on Grey Street. The watercourse runs towards the Seddon Street Watercourse draining the low lying farmland it passes through. The watercourse joins the Seddon St watercourse upstream of the Ballance Street Culvert. (See Fig 33)

According to the Evaluation Framework this is a watercourse. Council is only responsible for the maintenance of the culverts under the various streets which the watercourse passes through. (See 4.2.1)

13.3 Islington – George Street Drain

Runoff from a natural watercourse on the northern side of George Street and a swampy area as well as runoff from Islington Street is collected by a short section of open drain that flows into a pipeline through private property that discharges into the Grey Street stormwater system. The stormwater from a short section of Islington Street flows straight onto a corner section. No actual drain has been constructed. (See Fig 33)

According to the Evaluation Framework, this drain is considered to be a public drain from the inlet to the piped sections to its discharge into the Grey Street Stormwater System. (See 4.2.2)

13.4 Grey Street Stormwater System

A piped stormwater system collects stormwater from a low lying swampy area on the northern side of Grey Street between Duncan and Ballance Streets as well as from the Islington-George Street Drain. The reticulated system runs down the southern side of Grey Street and collects water from the Duncan Street Stormwater

System before discharging into what appears to be a natural watercourse through private property and into the Seddon Street Watercourse near Ward Street. (See Fig 33)

According to the Evaluation Framework, this drain has been piped by Council and is considered to be a public drain from the inlet to the piped sections to its discharge into the Seddon Street Watercourse. (See 4.2.2)

13.5 Duncan Street Drain

Runoff from farmland to the north of the town runs in a natural watercourse until it enters a culvert at No.12 Duncan Street. The piped section runs under a number of properties and also collects stormwater from the King Street and Raetihi Borough Yard Drains before passing under Seddon Street and another property and discharging into an open drain at the rear of the pensioner units. The open drain passes through a culvert under Queen Street and discharges into the Seddon Street Watercourse. (See Fig 33)

Silting up of the open drain and the outlet of the piped section has caused flooding problems in the vicinity of the fire station and regular maintenance is required on the section of open drain upstream of Queen Street.

According to the Evaluation Framework this drain is a public drain from the inlet to the piped section to its discharge point into the Seddon Street Watercourse. (See 4.2.2)

13.6 King Street Stormwater System

The Raetihi Borough Council installed a piped system that collects stormwater from the road and adjacent properties via a number of grated inlets in the grass verge. The system starts at the intersection of Ward Street and Ranfurly Tce and runs down both sides of Ward Street to where it joins the reticulation on King Street. This then flows down the northern roadside verge on King Street to Duncan Street, collects stormwater from around the Fire Station area and eventually discharges into the piped section of the Duncan Street Drain at a manhole in the access to the Housing Corp flats. (See Fig 33)

According to the Evaluation Framework, this drainage system has been installed by Council and consequently is a public drain. (See 4.2.2)

13.7 Raetihi Borough Yard Drain

Previously the Raetihi Borough and the Ruapehu District Council have maintained the open drains at the rear of the Old Raetihi Borough Yard that run parallel with Seddon Street for approximately 150m and the northern branch of this open drain. The drain flows into concrete pipes which discharge into the culverted section of the Duncan Street Drain. (See Fig 33)

According to the Evaluation Framework this drain is a public drain. (See 4.2.4)

13.8 Pitt Street Stormwater System

The Raetihi Borough Council installed a subsurface stormwater system along the southern roadside verge on Pitt Street between Ward and Duncan Streets and along the northern roadside verge between Duncan and Balance Streets. Both these drains discharge into the Seddon Street Watercourse at the Pitt / Duncan Street intersection. (See Fig 33)

According to the Evaluation Framework, these piped drains were installed by Council and are consequently considered to be public drains. (See 4.2.2)

13.9 Duncan Street Stormwater System

The Raetihi Borough Council installed a stormwater line along the eastern verge of Duncan Street from Pitt Street to Grey Street. A number of grated inlets allow surface water to enter the system which also collects stormwater from adjacent properties before discharging into the Grey Street Stormwater System at the intersection with Islington Street. (See Fig 33)

According to the Evaluation Framework, this piped drain has been installed by Council and is consequently considered to be a public drain. (See 4.2.2)

13.10 Raetihi Hotel Drain

In the past the Raetihi Borough and the Ruapehu District Council maintained an open drain that existed at the rear of the Raetihi Hotel up to the building previously known as Reynolds Motors. The open drain was piped and covered in 1998 by the Ruapehu District Council. The drain collects runoff from properties on the northern side of Seddon Street and the southern side of King Street. The drain discharges all water into a sump/manhole on State Highway 4. (See Fig 33)

According to the Evaluation Framework the Raetihi Hotel Drain has been piped by Council and is classified as a public drain. (See 4.2.2)

13.11 Plunket Street Drains

Runoff from farmland at the northern end of Plunket Street is collected in open drains that run down both side of Plunket Street. These drains collect stormwater runoff from properties on either side as well as the road itself. The drains discharge into grated intakes at the intersection with Seddon Street which is then piped under Seddon Street and discharged into an open drain which runs through a paddock and then private property behind the Anglican Church before discharging into the Seddon Street Watercourse in the sale yard area. (See Fig 33)

According to the Evaluation Framework these drains are public drains from the northern end of Plunket Street to the discharge point into the Seddon Street Watercourse. (See 4.2.4)

13.12 Makotuku Valley Road Drains

Stormwater from the eastern end of Seddon Street flows down the kerb and channel on Makotuku Valley Road (SH 4) into a roadside sump where it joins piped stormwater from the eastern end of King Street and is then piped under the highway into an open drain which discharges into the Makotuku River.

Another culvert under the highway between King Street and Ranfurly Tce collects runoff from the road, verge, adjacent properties and the eastern end of Ranfurly Tce and discharges it via the culvert into the Makotuku River. (See Fig 33)

According to the Evaluation Framework, both of these drains are public drains.

13.13 Ranfurly Terrace Drain

Runoff from a property on Ranfurly Tce enters the road reserve opposite the intersection with Ward Street and runs down the northern side of Ranfurly Tce towards Makotuku Valley Road where it flows through a culvert under the highway and discharges into the Makotuku River. (See Fig 33)

According to the Evaluation Framework, this drain is a public drain from the point where it enters the road reserve. The section of drain on private property is considered to be a private drain.

13.14 Parapara Road Drains

Stormwater runoff from Parapara Road (SH 4) is collected in a roadside drain on the western side of the highway and flows in a southerly direction from Seddon Street through culverts under Queen, Pitt, Grey and George Streets before being discharged through a culvert under the highway into the Makotuku River opposite the intersection with George Street. (See Fig 44)

According to the Evaluation Framework, this drain is a public drain (See 4.2.8)

Note – there are a number of individual roadside sumps and culverts within the township of Raetihi, which collect and convey stormwater under roads to nearby discharge points. All of these drains are considered to be public drains and as such their maintenance is Council’s responsibility.

SECTION FOURTEEN

DRAINS AND WATERCOURSES OHAKUNE

14. OHAKUNE

14.1 Miro Street Watercourse

The Miro Street Watercourse is initially fed from the Park Avenue Lake situated on the eastern side of town. From the lake the watercourse passes under Miro Street collecting runoff from the gully between Southridge Drive and Park Avenue plus a roadside drain. The watercourse then runs alongside Miro Street through a number of properties before it turns and flows past the end of Marton Place and under Mangawhero Tce before discharging into the Mangawhero River. Stormwater runoff is collected from Lee and Miro Streets along the way. In the past some sections of the watercourse have been maintained by Council where it passes through the residential area as well as the culverts where it passes under the various streets. In the past, there have been some instances of flooding in the area immediately upstream of the culvert under Mangawhero Tce in time of heavy rain. (See Fig 35)

The Miro Street Watercourse is a watercourse from the outlet from the man-made Park Avenue Lake through to the Mangawhero River. The watercourse generally follows its natural path towards the Mangawhero River and is not significantly effected by the stormwater that discharges into it. The fact that Council has maintained sections of the watercourse doesn't alter its classification.

14.2 Railway Watercourses

These watercourses flow in natural gullies draining the surrounding area on the northern side of the North Island Main Trunk railway.

Watercourse No 1 passes under Railway Row and the railway line before flowing into a gully that runs down to the Park Avenue Lake. Watercourse No 2 also runs under Railway Row and the railway line, then parallel to Thames Street before flowing under Rimu Street. Stormwater from Thames Street is discharged into the watercourse before it follows a natural gully under Tyne Street and out to the Mangawhero River at the corner of Foyle Street and Mangawhero Terrace. The third watercourse in the area passes under Railway Row before being channeled through two properties parallel to the railway line. From here the drain passes under Mangawhero Terrace and discharges into the river. (See Fig 35)

Railway Watercourses Nos 1 & 2 follow their natural paths and are not significantly effected by stormwater runoff. According to the Evaluation Framework these are considered to be watercourses except that Council is responsible for the maintenance of the culverted sections where they pass under roads and the railway line. (See 4.2.7)

Railway Watercourse No 3 has been diverted to run parallel to the railway. According to the Evaluation Framework this watercourse is a public drain from the inlet to the culvert under Railway Row to its discharge point into the Mangawhero River. (See 4.2.3)

14.3 Korokoio Stream

The Korokoio Stream drains a large area to the east of town. The watercourse collects a number of tributaries that flow down from north of the NIMTL and then flows in its natural path under Egmont Street, Ruapehu Road and Shannon Street before collecting stormwater runoff from the residential areas on Arawa, Miro and Goldfinch Streets before discharging into the Mangawhero River. Council has in the past maintained sections of the watercourse through the residential area as well as the culverts where it passes under the various streets. (See Fig 35)

It is considered that stormwater discharged into the Korokoio Stream from adjacent roads has no significant effect on the flow in the watercourse. This tributary to the Mangawhero River runs in its natural path and should remain classified as a watercourse. The fact that Council has maintained sections of the watercourse has no effect on its classification.

14.4 Manuka Street Watercourse

This watercourse also collects stormwater runoff from a large catchment on the eastern side of town. Smaller tributaries flow under Ruapehu Road and Tainui Street before joining the main watercourse that runs through the middle of the recreation reserve in the Manuka Street area.

The watercourse follows its natural path as it flows through the residential areas on Arawa, Conway, Miro, Goldfinch, Ayr, Rata and Clyde Streets before discharging into the Mangawhero River near the intersection with Burns Street. Stormwater from these streets is piped into the watercourse. Council has maintained sections of the watercourse through the residential area as well as the culverts where it passes under the various streets. (See Fig 35)

This tributary to the Mangawhero River flows in its natural path. The stormwater that is piped into the watercourse has no significant effect on its flow and it should therefore remain classified as a watercourse. The fact that Council has maintained sections of the watercourse has no effect on its classification.

14.5 Old Station Road Drains and Watercourses

There are a number of small natural watercourses which drain the area between the Mangawhero river and Old Station Road and which flow through culverts under Old Station Road. There are also a few sections of open drain adjacent to the road.

It is considered that Council is only responsible for the maintenance of the sections of open drain and the culverts under the road. (See Fig 35)

14.6 Snowmass Drain

This system collects stormwater from the northern end of Snowmass Drive which is then piped to the Western boundary of the Snowmass subdivision to an open water course. (See Fig 34)

14.7 Turoa Village No 1 Watercourse

This watercourse collects stormwater from the northern end of Turoa Drive. It flows in a westerly direction where it is culverted under Snowmass Drive and then into farmland. (See Fig 34)

14.8 Turoa Village No 2 Watercourse

This watercourse collects stormwater from the southern end of Turoa Drive. It flows in a southerly direction to farmland. (See Fig 34)

Note – there are a number of sections of reticulated stormwater as well as individual roadside sumps and culverts within the township of Ohakune, which collect and convey stormwater under roads to nearby discharge points. All of these drains are considered to be public drains and as such their maintenance is Council’s responsibility.

SECTION FIFTEEN

DRAINS AND WATERCOURSES RANGATAUA

15. RANGATAUA

15.1 Marino Street Watercourse

This watercourse collects water from the Piwari and Marino Street Drains and flows in an easterly direction into the Mangaehuehu Scenic Reserve. In the past the Waimarino County Council maintained some sections of this watercourse. (See Fig 36)

According to the Evaluation Framework this should remain classified as a watercourse. (See 4.2.1)

15.2 Marino Street Drain

The Marino Street Drain starts as an open drain near Nei Street and flows in a southerly direction down the western side of Marino Street. The open drain has been piped in recent years by the Ruapehu District Council from the intersection with Miharo Street to its discharge point into the Marino Street Watercourse. A number of private open drains discharge into this drain. (See Fig 36)

According to the Evaluation Framework this drain has been constructed by the Council and is therefore considered to be a public drain. (See 4.2.2)

15.3 Nei Street Drain

The Nei Street Drain runs down both sides of Nei Street with a number of culverts under the road which transfer the collected stormwater into the drain on the northern side of Nei Street. The drain flows in an easterly direction and enters a short piped section near the intersection with Tau Street before flowing into a deeper open drain which eventually discharges into the Mangaehuehu Stream downstream of the railway bridge. (See Fig 36)

According to the Evaluation Framework, this drain is a public drain. (See 4.2.8)

15.4 Miharo Street Drain

The Miharo Street Drain collects stormwater from the area around the western end of Miharo Street and the northern end of Piwari Street. It is then piped down the northern side of Miharo Street to discharge into the Marino Street Drain at the intersection with Marino Street. This section was piped by the Ruapehu District Council in 2003. A number of private open drains discharge into this drain.

Another section of open drain excavated by the Waimarino County Council starts near the intersection with Marino Street and runs in an easterly direction down the northern side of Miharo Street to discharge into the Kaha Street Watercourse. (See Fig 36)

Both these sections of drain have been constructed by Council and therefore according to the Evaluation Framework they are considered to be public drains. (See 4.2.2)

15.5 Kaha Street Watercourse

The Kaha Street Watercourse starts on private property near Nei Street and collects water from private sections and roadside drainage on the eastern side of the Rangataua township before discharging it into open farmland. This watercourse has been maintained by the Waimarino County Council in the past. (See Fig 36)

According to the Evaluation Framework this is a watercourse. (See 4.2.1)

15.6 Kaha Street Drains

Open drains on either one or both sides of Kaha Street collect runoff from the road and surrounding area and discharge it into the Piwari or Marino Street Drains or the Kaha Street Watercourse. (See Fig 36)

These drains have been constructed in the past by the Waimarino County Council and therefore according to the Evaluation Framework they are considered to be public drains (See 4.2.4)

15.7 Piwari Street Drain

The Piwari Street Drain collects stormwater from the western end of Kaha Street as well as a number of private properties before discharging into or merging with the Marino Street Watercourse. In the past it appears to have been maintained by the private property owners. (See Fig 36)

According to the Evaluation Framework this drain is considered to be a private drain.

15.8 Rangataua Roadside Drains

Within the Rangataua Township there are a number of roadside drains of varying depth that collect and convey stormwater from the adjacent roads and properties and discharge into one of the abovementioned drains. The drains situated within the road reserve and running parallel to the roads are generally considered to be public drains. All drains on private property that drain or discharge into any of the roadside drains are considered to be private drains.

SECTION SIXTEEN

DRAINS AND WATERCOURSES WAIOURU

16. WAIOURU

16.1 Waiouru Watercourse

This watercourse flows in a natural depression between Ruanui Street and the Army Camp residential area. The watercourse has been piped under Andrews Drive and State Highway 1 where it discharges into the natural watercourse again on the western side of State Highway 1. This watercourse was dug out in 1993 by the Ruapehu District Council to provide an outlet for drainage from the Ruanui Street area. Sections of the watercourse have since been maintained by Council. (See Fig 37)

According to the Evaluation Framework this is a public drain from the discharge point from the Ruanui Street Drain to its discharge point on the western side of State Highway 1. (See 4.2.4)

16.2 Ruanui Street Drain

Stormwater from Rangipo Street, State Highway 1 and the service lanes either side of the highway enters a reticulated system through a number of roadside sumps in the vicinity of the SH1/Rangipo/Ruanui Street intersection. The piped system discharges into an open drain at the northern end of Ruanui Street. The open drain flows in an easterly direction and discharges into the Waiouru Watercourse. (See Fig 37)

The Ruanui Street Drain has been installed by the Rangitikei County Council and therefore according to the Evaluation Framework is considered to be a public drain. (See 4.2.2)

16.3 State Highway 1 Drain

Stormwater from the vicinity of the intersection of State Highways 1 and 49 and Ngauruhoe Street enters a reticulated system through a number of roadside sumps which flows in a northerly direction on the western side of State Highway 1 to discharge north of the intersection with Andrews Drive into the Waiouru Watercourse. (See Fig 37)

According to the Evaluation Framework, this drainage system is considered to be a public drain. (See 4.2.8)

16.4 State Highway 49 Watercourse

This watercourse begins at Ngauruhoe Street, runs adjacent to the Main Trunk Railway Line, passes under State Highway 49 and connects with a larger watercourse extending from the Waiouru township. (See Fig 37)

According to the Evaluation Framework this is a watercourse and the maintenance of the culvert under SH49 is considered to be Transit's responsibility. (See 4.2.1)

16.5 Ngauruhoe Street Drain

An open drain runs in a southerly direction at the southern end of Ngauruhoe Street. This drain is on railway land and really only provides drainage to the old railway yard area. (See Fig 37)

According to the Evaluation Framework this drain is considered to be a private drain.

SECTION SEVENTEEN

DRAINS AND WATERCOURSES PIPIRIKI

17. PIPIRIKI

- 17.1 Roadside drains running adjacent to and culverts under the various roads within the Pipiriki township area are considered to be public drains. (See Fig 38)