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Photograph of the Manawatu River, Palmerston North, by Robert Sanson.

**An Uneasy Relationship:
Palmerston North City and the Manawatu River
1941-2006**

Machines quarry its gravels, farms now cover its fertile plains, protected from flooding, while the city of Palmerston North nestles uneasily against it.¹

A Thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in History at Massey University.

Jill White

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¹ Richard Heerdegen, 'Manawatu River: A Region's Identity', in *The South of the North: Manawatu and its Neighbours*, B.G.R. Saunders (ed.), Palmerston North: Geography Programme, School of Global Studies, Massey University, 2000, p.46.

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Preface

This preface is a declaration of interest in aspects of this thesis.

As a Palmerston North City Councillor from 1983 to 1992 I had a considerable interest in Civil Defence and was involved in the welfare operation in the 1988 flood in the south-west corner of the City. When elected to Manawatu-Wanganui Regional Council in 1989 my interest also encompassed the Lower Manawatu Flood Control Scheme (LMS), to the extent of organising a bus tour of the scheme for the Palmerston North Local History Group in 1990. In 1994 I was one of the Regional Council members on the Public Liaison group for the Review of the LMS.

In the late 1990s, as Mayor of Palmerston North I was necessarily involved in the decision-making processes for the WasteWater 2006 project. I am no longer an elected member of any local authority and represent Palmerston North City on the Wastewater Monitoring Group.

After the floods of February 2004 I was asked to be the Palmerston North trustee on the newly formed Manawatu-Wanganui Regional Disaster Relief Fund Trust. I have been Chairperson of the Trust since that time. Given the intensive involvement in that work for over twelve months, my topic for a History Masters thesis more or less chose itself.

Acknowledgements

In researching this topic I have received assistance from a number of people and wish to record my great appreciation, both for the actual contributions made to the thesis and for my enjoyment of the exercise.

The Manawatu-Wanganui Regional Council has been a rich source of information. My warm thanks go to Noelene Wevell and to Graham Doull. Noelene introduced me to Horizons Archives and has been unfailing in her efforts to find the information I have needed. Graham has discussed issues around the gravel resource and generously supplied data on floods. My thanks also to Garrick Murfitt for definitions, and to those other members of the Horizons team who made me welcome, gave me information and were interested.

The Ian Matheson City Archives have been an important resource and I am most grateful to Lesley Courtney and Barbara Olsen who have been painstaking in finding material for me and have suggested useful sources. I have spent a lot of time in the New Zealand and Pacific section of the City Library with newspaper microfilms. Special thanks to Philippa Elphick and her team for all their cheerful assistance with the microfilms and for tracking down other publications for me.

My thanks also go to Rodney Bethell of Palmerston North City Council for his assistance with Map 2, showing the Manawatu River as it passes through the City, to Michael McCartney, General Manager of Horizons Regional Council for permission to use Maps 1 and 3, to Professors Neil Ericksen and Hamish Rennie of Waikato University, the former for information he shared and the latter for steering me in the direction of Professor Ericksen.

I was encouraged by the response to a letter I had written to the *Tribune*. A number of people, by writing of their experiences, gave me a wider understanding of the place of the river in the lives of some city people. I am very appreciative of being able to use this material, as I am of the information and perceptions that have arisen in conversations with many people. These conversations have been in the street, along the riverbank, at meetings, with neighbours, over the telephone. It is heartening to discover just how important the river is to many in the City.

A small number of people also gave me their time in interviews. It was a great privilege and I hope I have done justice to the perspectives and experiences they shared. Often memories were joyful but occasionally very painful and I am grateful for all that was shared.

Two people supplied me with photographs. The frontispiece is the work of Robert Sanson, from 'Images of My Father's World'. It shows the sometimes hidden beauty of the Manawatu River and I thank Robert for allowing me to use it, and to Anthony Lewis for introducing me to Robert's work. My thanks also go to

Noeleen Olson for the several photographs she gave to me, showing both boating club activities around the late 1940s and the spectator interest in those activities.

My husband Bruce Wilson has been most supportive and encouraging, as always. His way of working is complementary to mine and I hope he has gained from my way as much as I have from his. I am very grateful for his understanding of the importance of this work to me.

My thanks are many but most particularly go to my Supervisor, Dr James Watson. James has been generous with time, a great sounding board for the discussion of ideas, and has been quietly insistent that I produce chapters when my inclination has been to stay immersed in research. His interest, knowledge and humour have been very much appreciated.

Abbreviations

The Anglers - Manawatu Freshwater Anglers Club

The Board - means Manawatu Catchment Board from 1943 -1987, including Manawatu Regional Water Board from 1968; then, from 1987-1989 means the Central Districts Catchment Board with the combining of the Manawatu and Rangitikei Boards.

CA - Ian Matheson City Archives, at the City Library, Palmerston North

Canoe Club - Palmerston North Canoe Club

CAPN - Cycle Care Palmerston North

CDJBA - Central Districts Branch of the New Zealand Jet Boat Association

C.I. - Citizens' Initiative Inc.

CRTWP - Cross River Transportation Working Party

The Council, The City Council, PNCC - all are used to mean Palmerston North City Corporation/ Palmerston North City Council

Forest and Bird - Manawatu Royal Forest and Bird Protection Society

HA - Horizons Archives at Manawatu-Wanganui Regional Council, Palmerston North

LMS - Lower Manawatu Flood Control Scheme

LTCCP - Long Term Council Community Plan

Marine Division - Marine Division of Ministry of Transport

MoW - Ministry of Works

MoWD - Ministry of Works and Development

MRUA - Manawatu River Users Association. It also covers the original name, Manawatu River Users Committee (1973-1977) and River Users Association, sometimes used from August 1981 when all rivers in the Board's area were included although the main focus remained on the Manawatu River.

MWPS - Manawatu Walkways Promotion Society

NBSSWP - New Bridge Site Selection Working Party

NRB - National Roads Board

Pony Club - Tiritea Branch of the Manawatu Pony Club

The Regional Council - means the Manawatu-Wanganui Regional Council, established in 1989. It also includes the terms 'horizons.mw', which was the brand name of the Regional Council from March 1999 to August 2003 when it was rebranded 'Horizons Regional Council'. The latter term is frequently used although Manawatu-Wanganui Regional Council remains the legal name.

RMA - Resource Management Act 1991

RUC - River Users sub-Committee

SCRCC - Soil Conservation and Rivers Control Council

STA - Save the Avenue

WAS - Wellington Acclimatisation Society

WW2006 - WasteWater 2006

Units of measure

The metric system of measures has been generally used, but where figures have been converted from imperial measures, the latter are included in parentheses or footnotes where appropriate.

Cumecs - cubic metres per second

Cusecs - cubic feet per second

Chapter One: Introduction: A City and a River

As a consequence of the industriousness of that time, the Manawatu is not today a river that excites the popular imagination; it has become too civilised With the loss of its native forest went so much of the Manawatu's mystique.¹

It's a superb river even though it snakes and does its terrible, terrible things at times.... The river does do terrible things but it also shows such beauty and such delicacy that I just delight in it.²

This thesis explores the relationship between Palmerston North City and the Manawatu River over the period 1941 to 2006, through flood events, recreational opportunity and aesthetic enjoyment, attempts to build bridges and the economic exploitation of the river's resources. Despite anthropomorphic language used by local people about the river, this is a study of human perceptions of a river and the conflicts that have arisen from the varied experiences and aspirations of individuals and groups within the local population. The primary theme that emerges is of conflict, conflict of interests and values in the context of the growth of the City and development of technology on one hand and a rising consciousness of environmental issues and the conservation movement on the other.

This first chapter includes relevant aspects of the geography of the Manawatu River and Palmerston North City; the naming of the river and its historical significance to the people of Rangitaane, the tangata whenua; a consideration, through relevant literature, of the place the river held in the lives of the early European settlers of Palmerston North; and a comparison of attitudes to the Manawatu River with attitudes to the Whanganui, Waikato and Avon Rivers, as these emerge in literature and on the internet. To gain a further perspective on views of the river, the place it has in the work of some artists will also be considered.

Chapter Two will investigate the history of floods, flood protection measures and related controversies. It explores the underlying perception within the City of the river as dangerous. It is argued that a major interest of the City in the river has been with the threat posed by floodwaters, the drama inherent in this and efforts to control the river. The implications of the history of floods and flood control in the Manawatu

¹ David Young, Bruce Foster, *Faces of the River: New Zealand's Living Water*, Auckland: TVNZ Publishing, 1986, pp.131-132.

² Jack Register, interview with Jill White, 4 July 2006, transcript p.4.

River, as applied to Palmerston North, will be discussed in the light of the 'human ecological perspective' used by Neil Ericksen³ and also drawing on the thesis of Kim Harding.⁴

It has been said of the City that 'we turn our back on the river'.⁵ However, there are individuals for whom the Manawatu River is an important part of their lives, even an icon. These include anglers, canoeists, walkers, adventurous children, environmentalists and those who find beauty in the river. Chapter Three explores this concept for those pursuing recreational opportunities on the river and riverbank. Within these opportunities conflicts have been engendered. The nature of the conflicts and the attempts at management of them form an important part of this chapter.

Very significant contributors to the Palmerston North economy, in the form of the tertiary education and scientific research sectors, have, for the period under study, been situated on one side of the Manawatu River with the people who work there living on the other side. This issue has been complicated for much of the time by different local body authorities administering the land on the opposite banks of the river. The river has thus been a boundary, and at times perceived as a barrier contributing to a 'them-us' or 'town-gown' division. Chapter Four looks at the nature of this 'barrier'; the conflicts that emerged around the bridge debates of the 1970s and 1990s and the surprising failure to build a second bridge to serve the development that has occurred 'across the river'.

Chapter Five explores the economic uses of the river to Palmerston North and how the changing approaches to these uses reflect changing values placed on the river. One emphasis will be on the exploitation of the river for its gravel and the conflicting interests that have arisen. A second will be the discharge of waste to the river, the controversy surrounding this, and the changes both in practice and attitude in recent years. While both exploitation of gravel and discharge of waste involve activities of

³ Neil J. Ericksen, *Creating Flood Disasters? New Zealand's Need for a New Approach to Urban Flood Hazard*, Wellington: Water and Soil Directorate, Ministry of Works and Development, Water and Soil Miscellaneous Publication No.77, 1986.

⁴ Kim Marie Harding, 'Sink or Swim: The Implementation of Flood Hazard Reduction in the Lower North Island, New Zealand', MPhil Thesis in Resource and Environmental Planning, Massey University, 1996.

⁵ *Tribune*, 9 May 2004, p.3, Palmerston North City Councillor Heather Tanguay's, 'Hot Line'.

private business and local councils, some individuals have also gained limited economic advantage from the river.

Chapter Six sets out conclusions relating to the conflicting interests that have marked the interaction of the City with the river and to indications of changing attitudes to the river.

A river is defined as 'a large natural flow of water which drains a catchment to the sea'.⁶ The almost 6000 sq.km⁷ catchment of the Manawatu River is on both the east and west of the Tararua and Ruahine Ranges, with the Manawatu Gorge (the Gorge) separating the Tararuas from the Ruahines. The 249 km of river is the 'second largest in the North Island in terms of mean volume of water'.⁸ Commencing above Norsewood, the river is joined on the east side of the Ranges by three major tributaries.⁹ To the west, the Pohangina River joins the Manawatu near Ashhurst, below the exit from the Gorge. Its subsequent meanderings have built up the alluvial Manawatu Plains.¹⁰ The City of Palmerston North lies on the Lower Manawatu River, between the Manawatu Gorge and the sea at Foxton Beach. (See Map1, Appendix I.)

In 1941 the city boundaries were still those of the Borough boundaries of 1877, one boundary being the Manawatu River.¹¹ The City was surrounded by rural Kairanga County. The 1945 census population was 25,277, but by 1976 this had more than

⁶ Garrick Murfitt, Chairman, Horizons Regional Council, email to Jill White, 10 May 2006. This definition could also include drainage to a lake.

⁷ K.J. Page, R.D. Heerdegen, 'Channel Change on the Lower Manawatu River', *New Zealand Geographer*, April 1985, pp.35-38, p.35.

⁸ G.D. Egarr, J.H. Egarr, *New Zealand Recreational River Survey: An Investigation into the Recreational Potential of New Zealand's Inland Waterways, Part II Summaries of North Island Rivers*, Wellington: National Water and Soil Conservation Organisation, Ministry of Works and Development, Water and Soil Miscellaneous Publication No.14, 1981, p.57. The 249km is calculated from the Egarr and Egarr figures: above Dannevirke, 82 km; Dannevirke to Woodville, 53 km; Woodville to Ashhurst, 8 km; Ashhurst to Palmerston North, 22 km; Palmerston North to the sea, 84 km, (pp.57-59). However, the pamphlet, *Manawatu Catchment Board and Regional Water Board*, December 1986, gives the length of the river as 226 km.

⁹ To the east of the Ruahine and Tararua Ranges, the Manawatu River, which commences north of Norsewood, is joined by the Mangatainoka, Tiraumea and Mangahao rivers.

¹⁰ The fall from the Gorge to below Longburn is 1.3m/km, from Longburn to the Oroua River 0.56m/km, and then in the 48 kilometres to Foxton Estuary it falls only 0.19m/km. (Figures converted from ft/mile, from C.E. Taylor, 'Historical Notes on the Manawatu River Area', n.d., c.1960, p.1.) Taylor was a local engineer and a member of the Manawatu Catchment Board.

¹¹ Ian Matheson, *Council and Community: 125 Years of Local Government in Palmerston North 1877-2002*, Palmerston North: Palmerston North City Library, 2003, p.37, shows the boundaries as a line to the west of Botanical Road from the river to Boundary Road (now Tremaine Avenue), then along Boundary Road to the east coast railway line. The easternmost boundary was parallel to the railway line and then continued on, back to the river.

doubled to reach 57,931.¹² To accommodate this increase, many new streets were formed within the original boundaries, but the City also grew out by stages, in every direction. It was 1967 before it crossed the river to include much of Aokautere and Fitzherbert, although not Massey University and the scientific research institutions.¹³ The major local government reforms of 1989 brought these centres, together with the village of Ashhurst, Linton's military camp and prison, and a great deal of rural land, into the City. The stretch of river regarded as being within the City for the purposes of this thesis is that portion within the boundaries of the City from 1989. This means that Ashhurst Domain, Te Matai, Raukawa Road, Whakarongo and Linton are included even though they became part of the City only in 1989.¹⁴ (See Map 2, Appendix I.)

Legend states that 'Manawatu' was the name given to the river by the Maori tohunga, Haunui, as he travelled down the west coast of the North Island, searching for his wife who had run away with her lover. As he came to various rivers he named them according to their characteristics. The width and depth of the Manawatu at its mouth caused Haunui to state that his heart stood still, 'manawa' meaning 'heart' and 'tu' meaning 'to stand'.¹⁵ This is a widely accepted story of how the Manawatu River gained its name.¹⁶

Generations later, Rangitane, descendants of Whatonga, chief of the Kurahaupo canoe, became the tangata whenua of most of the catchment area of the Manawatu River.

When the Rangitane people stepped from prehistory into history in the nineteenth century, their tribal domain comprised almost the entire drainage basin of the Manawatu River, including its tributaries on both sides of the Tararua-Ruahine mountain chain.¹⁷

The Manawatu River was a major transport route for Rangitane, and Te Apati, the Manawatu Gorge, was of special significance. The legend of its creation is that a huge

¹² Matheson, *Council and Community*, p.38.

¹³ Matheson, *Council and Community*, p.53.

¹⁴ Following the reforms of 1989, the 1967 boundaries continue to be regarded as those of the 'city urban area'.

¹⁵ Judith Dell Panny, *John Bevan Ford: Paintings*, Auckland: David Bateman, 2004, p.48.

¹⁶ T.L. Buick, *Old Manawatu or The Wild Days of the West*, Palmerston North: Buick & Young, 1903, p.10, has two interpretations of 'Manawatu'. 'Depressed spirit' he attributes to Hau (Haunui) and gives most credence to, but also claims to have conversed on a train journey with a Maori who said the meaning was 'new heart', so named by warriors who refreshed themselves in the river after a battle. John Harvey, *Manawatu*, Palmerston North: Hub Publishing, 1999, p.21, claims that Hau 'stumbled because it was so wide he feared he could not cross it'. He interprets 'manawa' as 'heart' and 'tatu' as 'to stumble'.

¹⁷ J.M. McEwen, *Rangitane: A Tribal History*, Auckland: Heinemann Reed, 1986, p.1.

totara tree 'became possessed of a supernatural being called Okatia' and then gouged out the deep gorge as it moved inexorably through the Ranges from east to west. Te Apiti was also, for time, inhabited by a taniwha, Whangaimokopuna, and still contains a tapu rock, Te Ahu a Turanga.¹⁸

Literature dealing with early European settlers in Palmerston North mostly ignores the river unless it was in flood or otherwise a barrier. Joblin perceives the early families on the Fitzherbert or south¹⁹ side of the river as 'isolated from Palmerston North by the Manawatu River'.²⁰ However, not all found that barrier a disadvantage. Elizabeth Batchelar thought Batchelar's Royal Hotel on the Square was 'no place ... to bring up children' and was glad to build the family life over the river at Fitzherbert,²¹ although with a perception that the river was 'temperamental'.²²

Little mention is made of the river as a recreational resource. G.C. Petersen has an account of a canoe trip in 1881, through the Gorge and down to Foxton, seeing it as 'the forerunner of excursions which have become popular in recent years'.²³ The Awapuni lagoon also became a popular boating and picnic spot. The river held attractions for children, particularly boys. Nancy Smith recounts that 'Son' Perrin, born in 1874, 'always wandered off [after school] in search of adventure near the riverbank' in spite of 'canings for coming home late'.²⁴ In the early 1900s, boys used to visit an old shack on the riverbank, the home of hermit Peter Grey, to listen to his 'tales.' Some swam in a dangerous pool nearby, although it was forbidden.²⁵

The perception of travel on the Manawatu River varied. Petersen has early travellers making a 'journey up the great highway, the Manawatu River',²⁶ but elsewhere notes,

¹⁸ McEwen, p.1.

¹⁹ The true left bank is called the south bank in this thesis although at times the sinuous nature of the river means it is actually the east bank.

²⁰ Dorothea Joblin, *Behold the Plains, The Story of the Old Houses of Massey*, Auckland: Longman Paul, 1970, inside front cover.

²¹ Joblin, p.3.

²² Joblin, p.4.

²³ G.C. Petersen, *The Pioneering Days of Palmerston North*, Levin: Kerslake, Billens & Humphrey, 1952, p.69.

²⁴ Nancy Smith, *And So We Began, A History of the Perrin Family of Palmerston North and Notes on Various Other Early Settlers*, Palmerston North: Offset Publications, n.d., c.1971, p.22.

²⁵ Smith, p.64.

²⁶ G.C. Petersen, *Palmerston North: A Centennial History*, Wellington: A.H. & A.W. Reed, 1973, p.56. An example used by Petersen is that of Thomas Bevan who with his brother George had a rope-making business on the river near Shannon. He quotes from an account by Bevan in

'The nature of the river above Ngawhakarau rendered transport slow and difficult'.²⁷ Although the very early European settlers travelled up to Hokowhitu 'taking their goods and chattels with them in the canoes',²⁸ the river was soon rejected as a means of transport to Palmerston North. Petersen calls abandoning the river for road transport 'a key to survival' in the 1870s.²⁹ Bradfield, however, notes a 'flight of fancy' by a 1907 editor, 'that the Manawatu River might become the highway of the district for heavy transport', the editor having received an assurance 'that there would be no engineering difficulties ... and the river itself might ... do a great part of the necessary excavation'.³⁰ Subsequently, rail and air facilities and all major roads except State Highway 57 developed away from the river. The Mayor's message in the 1931 diamond jubilee publication lauds 'the immense advantages of [the City's] geographical position – the focal point of the highway, railway and skyway', but nowhere in his two pages makes any mention of the river.³¹

The river does receive brief utilitarian acknowledgements elsewhere in the jubilee booklet, being 'a place from which metal has been supplied for numerous important roading undertakings'.³² Buick is quoted regarding industrial development and the 'provision of some cheap power which is perhaps stored in the streams of the district'.³³ On the negative side, 'erosion by the river' is seen as a factor in the shift of the Manawatu Racing Club from the end of Park Road to Awapuni.³⁴

Reminiscences of an Old Colonist, 1908, p.1. However, it appears that Bevan was only going upstream 'to somewhere close to Shannon'. A.G.S. Bradfield, *Forgotten Days, Pioneering Experiences of the Early Citizens of Palmerston North and Settlers of the Manawatu*, Levin: Kerslake, Billens & Humphrey, 1956, p.123.

²⁷ Petersen, *Pioneering Days*, p.30. Ngawhakarau (at Half Crown Bend) was about 58 kilometres above the river mouth.

²⁸ A.G.S. Bradfield, *The Precious Years: Further Stories of the Pioneering Days of Palmerston North and Districts in the Manawatu*, Levin: Kerslake, Billens & Humphrey, 1962, p.80. Bradfield states that small sailing vessels could get as far up river as Shannon and whaleboats later reached the Opiki Bridge.

²⁹ Petersen, *Pioneering Days*, p.42.

³⁰ Bradfield, *Precious Years*, p.81. The canal idea was supported enthusiastically by one correspondent to the *Manawatu Daily Times*, with the claim that 'if this country were peopled by the Yankees, the river would be speedily straightened and electric power would be available for all purposes'. The electricity was to be generated in the Gorge and one of the purposes would be to link Palmerston North to 'all the surrounding centres' making it an 'emporium for all the surrounding country'.

³¹ Robert H. Billens, H. Leslie Verry, (compilers), *From Swamp to City: Commemorating the Diamond Jubilee of the City, 1887-1937*, Palmerston North: K & B Print, n.d., p.2.

³² Billens, Verry, p.119.

³³ Billens, Verry, p.51, quoting Buick, p.407.

³⁴ Billens, Verry, p.82.

In the 1939 publication, *You Must Come and See Us Too*, the 1935 Fitzherbert Bridge is featured with photographs and text. The river is not mentioned and the implication is that visitors should come to see the bridge but not the river.³⁵ However, the river had appeal for some visitors. An article from the *Otago Daily Times*, reprinted in the *Manawatu Daily Times*, 28 January 1902, stated, 'We had a view of the magnificent Manawatu sweeping along a few miles after emerging from the picturesque Gorge and saw what possibilities it possesses for beneficence or destruction'.³⁶

Publications about the City in the period under study have tended to be sparing in comments about the river, other than the Gorge. The City's centennial production mentions the river only in passing, in relation to the Fitzherbert Bridge, the Esplanade and Anzac Park. There is also a photo of a small boy fishing in an unnamed river.³⁷ *Palmerston North: New Zealand's Knowledge City* mentions that 'Palmerston North is situated on an alluvial plain laid down initially by the Manawatu River'.³⁸ The riverside walkway is 'a beautiful walk'³⁹ and 'flanks the Manawatu River for 11 kilometres as it meanders through the city'.⁴⁰ By implication the river provides some of the attractions listed, including 'white-water rafting, jet-boating, [and] fishing'.⁴¹

The first sentence of *Manawatu*, (1985), acknowledges the Manawatu Gorge as the 'province's most striking feature'.⁴² The Palmerston North stretch of the river appears in a few photographs, with the naming of the river, canoeing in the Gorge, the Fitzherbert Bridge and fishing also getting a mention in the text.⁴³ Harvey's later *Manawatu*, (1999), has photographs of the river through the Gorge and at Ballance, and the three versions of the Fitzherbert Bridge. He also states that the main walking trails

³⁵ P.S. Larcomb, J.P. McDavitt, H. Greenwood, (compilers), *You Must Come and See Us Too*, Palmerston North: Keeling & Mundy, 1939, p.4.

³⁶ Bradfield, *Forgotten Days*, p.69.

³⁷ Ian Matheson, *Palmerston North Centenary 1871-1971: From Clearing to City*, Palmerston North: Public Relations Organisation with the Palmerston North Centennial Association Inc., 1971, n.p.

³⁸ Gavin Lees (ed.), *Palmerston North: New Zealand's Knowledge City*, Palmerston North: Palmerston North City Council, n.d., p.3.

³⁹ *ibid.*, p.5.

⁴⁰ *ibid.*, p.10.

⁴¹ *ibid.*, p.5.

⁴² John Harvey (text), Mark Mitchell (photographer), *Manawatu*, Levin: Peter J. Stewart, 1985, p.5.

⁴³ Harvey, Mitchell, pp.17,68,11,70.

‘follow the course of the Manawatu River and other streams’.⁴⁴ Otherwise, once again, the river is given a low-key role in the life of the City.

Wanganui, Hamilton and Christchurch cities also have significant rivers running through them. The literature shows some similarities with Palmerston North in the way the people of each city interact with their river, but there are also marked differences.

From early in Wanganui’s settlement the river is portrayed prominently. ‘The Legend of the Wanganui River’, broadcast over 2XA, opened with the statement that, ‘Perhaps nowhere else in New Zealand has a geographical feature so dominated and influenced the lives of a people to the extent that the Wanganui River has done’.⁴⁵ In *Paddlewheels on the Wanganui* the vital transport function is highlighted, but so also is the charm of the river as a first view of the river in 1912 was recalled,

the sight and smell and serenity of it was like a cool hand on my sweaty brow. I stood there a long time watching its wide, smooth greenness pass below.⁴⁶

At this time the river, as ‘the lifeline of the pioneer farms and Maori settlements of the river valley’, carried motor launches, paddlewheel and twin-screw steamers and ‘the odd motorised Maori canoe’.⁴⁷ Charlotte Warburton, a Palmerston North woman, wrote that ‘the Wanganui is to many people, still the Rhine of New Zealand, the beauty of the river remains for us to see’.⁴⁸

In 1989 a group who wanted ‘to get together and share their enthusiasm and memories’ formed the Friends of the Whanganui River.⁴⁹ Their 1996 River Annual records a campsite clean-up, progress of the Riverboat Trust and work with the Department of Conservation to gain heritage funds for the Bridge to Nowhere ‘face-lift’.⁵⁰ The Riverboat Trust converted the 1881 Wanganui Rowing Club building into the

⁴⁴ John Harvey (text), Malcolm Somerville, Greg Wilson (photographers), *Manawatu*, Palmerston North: Hub Publishing, 1999, cover, pp.20,21,91,96.

⁴⁵ J.G. Smart, ‘The Legend of the Wanganui River’, in *History of Wanganui and its Environs* (scripts of a series of weekly broadcasts on 2XA), Wanganui-Rangitikei Electric Power Board, n.d., p.1.

⁴⁶ Alec Reid, as told by David Reid, *Paddlewheels on the Wanganui*, n.p., Paddlewheels Press, 2nd ed. n.d., c.1993, p.1.

⁴⁷ *ibid.*, Introduction.

⁴⁸ Charlotte Eliot Warburton with A.D. Mead (ed.), *The Wanganui River: The Rhine of New Zealand*, Palmerston North: Keeling and Mundy, 1965, p.14.

⁴⁹ Arthur P. Bates, Phil Thomsen (eds), *Whanganui River Memories*, Auckland: Heritage Press Ltd, 1999, p.3.

⁵⁰ Friends of the Whanganui River, *Whanganui River Annual*, 8th issue, n.p., 1966, pp. 5,7,16.

Whanganui Riverboat Centre and has been active in restoring some of the old paddlewheel steamers.⁵¹ The *Waimarie* is now engaged in tourist trips up the river from Wanganui.

As with the Whanganui River, navigation on the Waikato River receives attention in both local histories and present-day tourism promotions. *Bow Waves on the Waikato* details Maori and non-Maori usage of the river as a major transport and tourism route well into the twentieth century,⁵² while *Grand Old Man of the River: Caesar Roose* tells the story of one man's involvement over several decades in enterprises on the river.⁵³ These, and photographic accounts such as *Pictures from the Past: Waikato*,⁵⁴ demonstrate the vital part the river has played in the life of Hamilton and the 'river towns' of Mercer, Huntly, Cambridge and Ngauruawahia. *Between the River and the Hills: Waikato County Council 1876-1976* indicates the significance of the river to the former Waikato County. The attraction of the river is described in the view from the County offices in Hamilton.

Water, trees, houses and distant hills compose an almost unequalled panorama The river ... glides past between banks lined with trees ...⁵⁵

A concluding poem about the river has the phrases, 'immortal stream', 'perennial charm amid impermanent and human blemishes' and 'blithe medicament'.⁵⁶ The language may be more fulsome than in the above description of the Whanganui River, but the sentiments are similar.

The Avon too had its poet, in 1853 lauding the river for what it could become.

Thy rough uncultured banks ere long shall smile;
Heaven-pointing spires shall beautify thy plain.⁵⁷

⁵¹ The full title of the Trust is the Whanganui Riverboat Restoration and Navigation Trust.

⁵² Graham Vercoe, *Bow Waves on the Waikato*, Auckland: Reed Books, 1997.

⁵³ Margaret Stuart, as told by Jeanette Thomas, *Grand Old Man of the River: Caesar Roose*, Waiuku: W.J. Deed Printing, 1986.

⁵⁴ Deborah Challinor, *Pictures from the Past: Waikato*, n.p., Whitcoulls, 2002. Six photos out of 24 from Hamilton feature the Waikato River, particularly in relation to bridges and paddle steamers. Two are repeated on the covers.

⁵⁵ David More, *Between the River and the Hills: Waikato County Council*, Auckland: Wilson and Horton, 1976, p.295. The relevant chapter heading is, 'Home above the River'.

⁵⁶ *ibid.*, p.349.

⁵⁷ Henry Jacobs, *A Lay of the Southern Cross and Other Poems*, London: Skeffington & Son, 1893, p.85.

Richard 'River Bank' Owen's enthusiasm for the Avon took a more practical form, through the Christchurch Beautifying Association and, in the depression years of the 1920s and 1930s, the River Improvement and Unemployment Fund.⁵⁸ The Avon never had the navigation potential of the Whanganui or Waikato Rivers although some in Christchurch hoped to have 'tall ships' come up the river to the new settlement. In 1859 a channel was cut through the sandbar at New Brighton⁵⁹ but the river was too shallow and the Avon became a centre for recreational boating, not trade and transport.

Christchurch, Hamilton and Wanganui commenced European settlement with homes along the riverbanks.⁶⁰ Early in the histories of Hamilton and Wanganui there was agitation to get bridges across the river. *Astride the River: A History of Hamilton* recounts the very poor 'villages', one on each side of the river, pragmatically forming a borough to gain funds for a bridge.⁶¹ The Union Bridge opened in 1879. The city now has five road bridges.⁶² Wanganui gained its first bridge in 1871⁶³ and now has three road bridges. Christchurch, with the advantage of a narrower river, has been able to become a city of bridges. Of the 32 chapters in *From the Banks of the Avon: The Story of a River*, nine focus on different bridges.⁶⁴ The introduction to this book states, 'The river and the city belong together.'

In 'selling' the cities on websites, the Whanganui River features strongly.

'Destination Wanganui' mentions the beauty of the river, the riverside walks, the river tours, the historic tram ride 'along the riverbanks' and video footage of the 'stunning scenery of the Whanganui's upper reaches'. A further page is devoted to the river and the Whanganui National Park.⁶⁵ Hamilton City Council's website has reference to the 'majestic Waikato River' and to the accessibility of 'its River and Lake walkways'

⁵⁸ Richard L.N. Greenaway, *Rich Man, Poor Man, Environmentalist, Thief: Biographies of Canterbury Personalities Written for the Millennium and for the 150th Anniversary of the Canterbury Settlement*, Christchurch: Christchurch City Libraries, 2000, pp. 45-50.

⁵⁹ *ibid.*, p.11.

⁶⁰ Paul Day, Gabrielle Day, *A Picture Book of Old Waikato*, Auckland: Benton Ross, 1986, p.34, shows a 1904 photo of 'residences dominat[ing] the riverbank'.

⁶¹ P.J. Gibbons, *Astride the River: A History of Hamilton*, Christchurch: Whitcoulls, 1977.

⁶² Sue Miles, *The River: The Story of the Waikato*, Auckland: Heinemann, 1984, p.81.

⁶³ Maxwell J.G. Smart, Arthur P. Bates, *The Wanganui Story*, Wanganui: Wanganui Newspapers, 1972, p.168.

⁶⁴ Robert C. Lamb, *From the Banks of the Avon: The Story of a River*, Wellington: A.H. & A.W. Reed, 1981.

⁶⁵ www.destinationwanganui.com, 'About Destination Wanganui' and 'Whanganui River', 3 August 2006.

where one can 'escape to the sights and sounds of nature'.⁶⁶ In the 'cultural precinct' website for Christchurch, aspects of the 'cultural heart' of the city are listed and claimed as 'all entwined by the gently-flowing Avon river'.⁶⁷ The Christchurch City Council site has details of a 'Draft Avon River/ Otakaro (Central City) Masterplan'. It is clear that the Avon and the centre of Christchurch are seen very much together, with a 'vision which reflects community values in guarding, managing and enjoying the Avon River/ Otakaro and its setting through the central city'.⁶⁸

The Manawatu River in comparison, does not feature prominently in Manawatu and Palmerston North websites, apart from fly fishing and the 'high population of brown trout',⁶⁹ and jet boating and kayaking in the Gorge.⁷⁰ 'At the Hub' gives the most positive mention of the Manawatu River.

The Manawatu River runs through the southern part of the city of Palmerston North, creating picturesque views for residents. Peaceful lanes alongside the river route are yours to discover.⁷¹

There are some similarities between attitudes in Palmerston North towards the Manawatu River and attitudes in the other three cities towards their rivers. All four rivers have had their local champions. The work of Pauline Keys and Kitty Seiffert on the walkway beside the Manawatu River (Chapter Three) could be likened to the beautifying work of 'River Bank' Owen decades earlier, in Christchurch. In common with Wanganui, canoeing has long been a popular pastime on the Manawatu River. However, as a means of trade or passenger transport since the time of European settlement, the Manawatu does not have the rich heritage of the Whanganui or Waikato rivers, even though all three had been very important as both highways and food resources for Maori.

A significant difference between the European settlement of Palmerston North and the other three cities was that in Palmerston North European settlement commenced on the

⁶⁶ www.hamilton.co.nz, 'explore hamilton' and 'living hamilton', 3 August 2006.

⁶⁷ www.culturalprecinct.co.nz/, 8 August 2006.

⁶⁸ www.ccc.govt.nz/Parks/NaturalAreas/AvonRiver/MasterPlan, 8 August 2006.

⁶⁹ www.man.quik.co.nz/davidweb/, 8 August 2006

⁷⁰ For example, www.newzealand.com/travel/destinations/regions/manawatu-wanganui/, 11 November 2006

⁷¹ www.atthehub.co.nz/riversandmountains.html, 8 August 2006.

dryer ground some distance away from the river. The Square rather than the river became a central focus of the developing community.

Creating the Square was one of the defining moments in the history of Palmerston North. The Square's importance as the city's heart will continue next century and next millennium.⁷²

A related difference was that Palmerston North initially developed only on one side of the river and for almost one hundred years the two banks had different local authorities. Even after the City grew closer to the river, the Esplanade, golf courses and other open spaces meant few city homes were actually overlooking the river until development started on the Aokautere side.⁷³ To a considerable extent the river is hidden. These factors may help explain the difference in the perceptions of river and City as belonging together. Phrases such as 'river city' or the 'the river and the city belong together' are missing about Palmerston North City and the Manawatu River. More relevant has been the phrase of Heerdegen on the Title Page that, 'the city...nestles uneasily against [the river]'.⁷⁴

Nevertheless the river has been significant in the work of some painters and photographers. Judith Panny describes John Bevan Ford's *Te Mana o te Whenua*, a painting appropriately in the possession of Horizons Regional Council.

[The] cloaked figure in the foreground represents Haunui, standing at the mouth of the Manawatu River The work encompasses a ... broad sweep of landscape, showing the main rivers of the region The cloak ... patterning reflects the folded ranges, the undulating foothills and the Plain.⁷⁵

Jack Register was a friend of the late John Bevan Ford and painted with him in the Manawatu Gorge. The Manawatu River has been a special place to him.

And then later on when I decided to paint, the first paintings were of the Manawatu River beaches, which are spectacular in the summer and even in the winter when the river drops quickly We get lovely forms of light in the river around four in the afternoon, if you

⁷² 'Square Story is City's Story', in *Evening Standard*, 'Millenium Review: Manawatu 1000-2000', December 1999, p.7.

⁷³ Those that do overlook the river include some homes in Buick Crescent, Heatley Avenue, and Ruahine Street near Fitzroy Bend. Some Ruamahanga Crescent homes are also on a stopbank but further from the river and this stopbank has now become a secondary line of defence against flood.

⁷⁴ Richard Heerdegen, 'Manawatu River: A Region's Identity' in *The South of the North: Manawatu and its Neighbours*, B.G.R. Saunders (ed.), Palmerston North: Geography Programme, School of Global Studies, Massey University, 2000, p.46.

⁷⁵ Panny, pp.48,49.

wander down to the river and wander on to the beaches themselves and look towards the sunset ... glorious colours and lights and great feelings.⁷⁶

He also saw in the river, links with the geological history of New Zealand and with past inhabitants of the Manawatu, both Maori and his own family pioneers. The greywacke rock and the crockery shards swept from old tips on Dittmer Drive to river beaches near Shirriff's road held significance for him.

Further down, as the river has washed in and taken stuff down by Shirriff's Road, on the long beaches down there are these shards of all sorts of crockery and that's marvellous because you walk on a mosaic of crockery that's also on these shallow shingle beaches. That's superb! You don't get that in many places in New Zealand.⁷⁷

Some photographers have also found beauty or drama in the Manawatu River. The work of Robert Sanson as seen in the frontispiece to this thesis demonstrates both beauty and serenity.⁷⁸ Mat Weir's photographs, from the Ashhurst Gallery, show the drama of the river in flood.⁷⁹

Conclusion:

Although the Manawatu River has been significant to the Rangitaane people for many generations, for much of the history of European settlement the City as a whole has not identified itself as positively with its river as have the cities of Wanganui, Hamilton and Christchurch with the Whanganui, Waikato and Avon rivers. The pattern of settlement is one aspect of the differences in attitudes to the respective rivers. Subsequent chapters will explore other aspects of the relationship of Palmerston North City to the Manawatu River.

⁷⁶ Jack Register, transcript p.1.

⁷⁷ Jack Register, transcript p.3.

⁷⁸ Robert Sanson, photograph of Manawatu River from 'Images of My Father's World', copy to Jill White, May 2006.

⁷⁹ Mat Weir, Ashhurst Gallery, for example, three photographs of the Manawatu River in the vicinity of the Ashhurst Bridge show the river in flood.,
www.ourregion.co.nz/gImage.php?gImageID=420&gallery=®ion=6 .

Chapter Two: Taming a 'wayward' river: winning a battle or winning a war?

'Flood' is an overflow of water from within the normal banks or natural confines of a river or stream.¹

I have never trusted that river and I never will!²

This chapter explores the significance of the floods of 1941, 1953, 1992 and 2004. For each event the discussion will include the magnitude of the flood in terms of peak discharge, land covered and damage within the City; the relationship between the development of city land and level of flood protection particularly in Hokowhitu; details of flood protection measures; and the experiences of city residents, whether as victims, helpers or sightseers. The forces that underpinned a drive for erosion control and flood protection early in this period will be explored, as will the long-term consequences of these measures.³

Decisions made about flood protection will be discussed using Neil Ericksen's 'human ecological perspective'. Ericksen defines 'flood hazard' as 'the interaction between two systems: the physical flood event and human use of the flood plain'.⁴ He puts emphasis on human perceptions of risk and protection in determining choices made. Paradoxically, increased protection that leads to an enhanced sense of security and more intensive development in flood-prone areas also leads to an increase in magnitude of risk from failure of the protection system. In terms of the human ecological perspective, 'adjustment' to reduce flood losses is considered in three ways:

- (i) 'Modify the flood' through activities such as construction of dams, ponding areas and stopbanks, and 'channelising the river';
- (ii) 'Modify human use of the floodplain' by controlling land use by zoning, or by regulations such as minimum floor levels; and

¹ Garrick Murfitt, Chairman, Horizons Regional Council, email to Jill White, 10 May 2006.

² Lucy Marsden, conversation with Jill White, Feilding, 7 August 2005.

³ Other sources of flooding in the city will not be covered in this exercise. These include flooding from the Mangaone and Kawau Streams, and localised flooding from stormwater that cannot rapidly drain away.

⁴ Neil J. Ericksen, *Creating Flood Disasters? New Zealand's Need for a New Approach to Urban Flood Hazard*, Wellington: Water and Soil Directorate, Ministry of Works and Development, Water and Soil Miscellaneous Publication No.77, 1986, p.7.

- (iii) 'Modify flood losses' by 'emergency actions' such as evacuations, by insurance cover, public appeals for relief funds and the involvement of various organisations, including governmental, in rehabilitation.⁵

It will be argued that the flood protection in the City has been dominated by the 'modify the flood' approach.

As well as the work of Neil Ericksen, three theses also include material that relates to the Manawatu and in varying degrees to the approach Ericksen uses in discussing flood hazards and human response.⁶ Jennifer McNeill-Adams in 1968⁷ and Donald Johnston in 1976⁸ explore flood hazards in rural Manawatu. Two decades later, Kim Harding's thesis explores the responsibilities and roles of local government in managing flood hazard reduction, in the light of the Resource Management Act 1919 (RMA).⁹ Whereas McNeill-Adams and Johnston are looking at flood hazards in rural Manawatu, Harding includes Palmerston North City in her considerations and is therefore more directly relevant to this thesis. She draws on the human ecological perspective as developed in a New Zealand setting by Ericksen.

Prior to European settlement, much of what are now the Parklands, Hokowhitu, Awapuni and Riverdale areas of Palmerston North were bush and swamp, periodically inundated by the Manawatu River. The river over time changed its course, often in floods. Ox-bow lagoons indicate former river courses, as shown in a drainage pattern map of 1877, with three such lagoons within the then borough, and two more in the

⁵ *ibid.*, p.8.

⁶ Ericksen also acknowledges Gilbert White and others, Department of Geography, University of Chicago, for their work from mid 20th century in human adjustments to flooding.

⁷ Jennifer McNeill-Adams, 'Effects of the Lower Manawatu River Flood Control Scheme on the Farming in the Lower Manawatu', MA Thesis in Geography, Massey University, 1968. McNeill-Adams claims, 'The fact that the Manawatu River does flood does not constitute a problem in itself. It is only when it is considered in the context of human occupation that any problem arises.' (p.22). She does not develop this concept further, but explores the extent to which changes have occurred in land values, type and intensity of farming, with the advent of the Lower Manawatu Flood Control Scheme in the 1960s.

⁸ Donald Bruce Johnston, 'An Examination of Decision Making in Adjustment to the Flood Hazard with Particular Reference to the Lower Manawatu Region', MA Thesis in Geography, Massey University, 1976. Johnston too, is concerned about the adjustments farmers make to flood hazards, but places more emphasis on the difference in perceptions held by the Manawatu Catchment Board and those held by the floodplain farmers regarding flood protection measures. Johnston pays more attention than McNeill-Adams to a theoretical underpinning of the decision-making process

⁹ Kim Marie Harding, 'Sink or Swim: The Implementation of Flood Hazard Reduction in the Lower North Island, New Zealand', MPhil Thesis in Resource and Environmental Planning, Massey University, 1996.

Awapuni area.¹⁰ The first European township developed on the relatively high-and-dry Papaioea clearing, an old river terrace with 'free-draining stony soil',¹¹ almost 2 kilometres from the river. Although by 1896 streets between the Papaioea clearing and river included College, Park, Te Awe Awe, Botanical, Cook, Fitzherbert, Albert, Ruahine, Manawatu and Brightwater, the area was not closely settled.¹²

In Palmerston North's early years the river 'flowed along a defined channel on the southern margin of the town', and forest protected the riverbank from erosion.¹³ However, erosion became a problem as forests were cleared. Between the early 1880s and 1907, 'some 77 acres of land had been washed away' at the Fitzroy Bend, giving rise to

fear that the river would eventually cut its way into a depression which ran from Fitzroy Street to Te Ngutu Lagoon ...[and thence into old watercourses] ... cutting off hundreds of acres of low-lying land from the higher part of the borough.¹⁴

This concern led to the establishment in 1921 of the Palmerston North River Board,¹⁵ which used wooden groynes and willow plantings to attempt to stabilise riverbanks, and cut a by-pass channel at Fitzroy Bend to arrest the river's incursion there.¹⁶

¹⁰ Ian Matheson, *Council and Community: 125 Years of Local Government in Palmerston North 1877-2002*, Palmerston North: Palmerston North City Library, 2003, p.9. The map, 'Papaioea Clearing and the Original Drainage Pattern of Palmerston North', shows the Te Ngutu and Hokowhitu lagoons linked by the now Awatea Stream, together with Awatapu and Awapuni lagoons and one without a name, in the area between Main Street and the Manawatu River. The superimposed 2002 street map shows Churchill Avenue following the course of the former Te Ngutu lagoon. The Hokowhitu Lagoon is now called Centennial Lagoon.

¹¹ Matheson, *Council and Community*, p.8.

¹² Matheson, *Council and Community*, p.29. The map, 'Streets and Drainage Pattern 1926', shows streets formed before 1896 as well as between 1896 and 1926.

¹³ M.M. Roche, 'Taming the Land: A Complete Transformation' in B.G.R. Saunders (ed.), *The South of the North: Manawatu and Its Neighbours*, Palmerston North: Geography Programme, School of Global Studies, Massey University, 2000, p.13.

¹⁴ Ian Matheson, 'Controlling the River', notes written for a proposed history of the Palmerston North City Council, 1977, p.3, CA file 175/66 pt.1.

¹⁵ Noelene Wevell, Archivist, Horizons Regional Council, 'A Brief History of the Contributing Authorities Which Formed the Manawatu-Wanganui Regional Council', May 1993, revised August 1997 and December 2002, p.3, states that Palmerston North River Board came into existence in 1921 and merged into the Manawatu Catchment Board in 1946. The River Board took over from the Palmerston North-Kairanga Board (1913-1920) that part of the river within the city boundaries. The Manawatu-Oroua River Board at the same time took over the river downstream of Palmerston North. It merged with the Manawatu Catchment Board in 1953.

¹⁶ Matheson, *Council and Community*, p.36. Matheson, 'Controlling the River' p.5, states that the earlier Palmerston North-Kairanga River Board 'had a short and unhappy history', being unable to get ratepayer support for its loan and rating proposals.

Settlers experienced significant floods in 1880, 1897, 1902 and 1907, the most damaging being that of 1902 although the largest peak was in 1880.¹⁷ Records are incomplete, and for 1902 incorrect in that the 'extended peak' was less than that claimed for many years.¹⁸ However, this was the 'great flood', which 'inundated the southern part of the borough and caused much damage to the farms of Hokowhitu'.¹⁹ Table 1, Appendix I, shows the ten most significant floods from 1880 to 2004, with relevant measures of magnitude.²⁰

By 1941 there was closer settlement in the area from the Square towards the river but the river was still respected.²¹

Housing continued to spread outwards from the centre of town, taking advantage of stormwater drainage improvements made by the Council during the early 1920s, but the low-lying parts of Hokowhitu remained undeveloped because of the flood risk.²²

The River Board had constructed some stopbanks in Hokowhitu by 1941, but these were not adequate to protect property and stock from the flood of 4/5 May that year, which peaked at 5.86 metres at Fitzherbert Bridge in the early hours of 5 May. Several streets were flooded in the late afternoon of 4 May, when the river 'flowed through a small depression above Fitzroy Street',²³ and then, as predicted decades earlier, into the old waterways of Te Ngutu and Hokowhitu Lagoons. Swamps near Te Ngutu were covered in floodwater.²⁴ About midnight a stopbank breach led to further extensive flooding around Albert, Pahiatua and Manawatu Streets, with 62 houses having water 'above floor level' and people evacuated by police, council staff, territorials²⁵ and

¹⁷ The 1880 flood is thought to be the largest in terms of discharge, in cubic metres per second (cumecs), since European settlement.

¹⁸ Horizons.mw, 'Historical Flood Damage', Palmerston North: Manawatu-Wanganui Regional Council, n.d., but flood data to 2001. Note 1 suggests a newspaper reporter, writing on Sunday for Monday's paper, used the word 'yesterday' instead of the actual day, Saturday, and gave the impression the peak was 24 hours longer than it was.

¹⁹ Matheson, *Council and Community*, p. 28. Matheson, 'Controlling the River', p.2, also calls the 1902 flood 'the famous "old man" flood'.

²⁰ Peak discharge volume figures are from Manawatu-Wanganui Regional Council, as measured at Fitzherbert Bridge (from 1929-1972) or Ruahine Street (from 1971-c.1987) or Massey Hokowhitu Campus (from c.1987-present).

²¹ Matheson, *Council and Community*, p.37, map, 'Street and Drainage Patterns 1945'.

²² Matheson, *Council and Community*, p.36.

²³ Ian Matheson, 'Flood of 1941', notes from PNCC Report Book (Oct 1940 – Feb 1942), pp.164-165, City Engineer's 'Report on Flood', 9 June 1941, CA file A175/66 pt.1. A peak level of 5.84m (19ft 2in) was recorded at Fitzherbert Bridge, but the duration was just three hours.

²⁴ G.A., interview with Jill White, September 2006, notes, p.2.

²⁵ *Times*, 5 May 1941, p.6, notes that Territorial Regiments 'were in temporary bivouacs' in a number of areas. Particular note was made of the assistance given by territorials from the Showgrounds in rescuing people by punt from Te Matai. Territorials from Ashhurst were on stand-by. The Hawke's Bay

volunteers, 'from houses, from rooftops, from islands and ... a telegraph pole'.²⁶ The Home Guard was called upon to patrol streets and secure evacuated properties.²⁷ (See Map 3, Appendix I.)

Help came from the Women's War Service Auxiliary with a mobile canteen. Together with the United Guild, the Red Cross and St David's Guild, they also provided about 30 women to help 'spring clean' and wash clothes for those affected. Council employees carried 'bedding, clothing, carpets ... to the kiln drier at [a] box factory'.²⁸ G.A., who grew up in the City, remembers the 'drama' of this flood and the way neighbours and friends helped each other. 'You did!'²⁹

About 622 acres of Hokowhitu were under water,³⁰ as far up Albert Street as Ferguson Street.³¹ Market gardens, orchards, Council stables and farms were seriously affected. One poultry farmer 'lost about 300 laying pullets', pigs were evacuated from farms, several tons of apples floated from an orchard and 'cabbages and other vegetables' were swept from the ground.³² Areas upstream and downstream of the City also suffered severely. People were evacuated from Raukawa Rd and the Te Matai area 'where a block of about 2000 acres was left a lake'.³³ The Taonui Basin and other areas beyond the City were extensively flooded.³⁴ This was the largest flood since 1907 and brought out the sightseers as well as the helpers.

News of the flood quickly spread in the city and all [Sunday] afternoon Fitzherbert Avenue was thronged with cars and pedestrians on their way to and from the river'.³⁵

The Territorials provided pickets on flood-affected streets and managed to 'turn back smiling even the most case-hardened sightseer'.³⁶

Regiment had to be evacuated from the rifle range area near the present Massey University Hokowhitu Campus.

²⁶ *Manawatu Evening Standard*, 5 May 1941, p.7. The telegraph pole became the haven for three Council workers who were trapped when they went to release horses from the Council stables. Matheson, 'Flood of 1941', quotes from the City Engineer's 'Report on Flood', PNCC Report Book, p.165, that the Council employees were 'going to the rescue of a marooned family'.

²⁷ *Times*, 6 May 1941, p.6.

²⁸ *Manawatu Evening Standard*, 7 May 1941, p.6

²⁹ G.A., interview notes, p.2.

³⁰ *Manawatu Evening Standard*, 5 May 1941, p.7.

³¹ G.G. Brougham, N.R. McLennan, *An Assessment of Palmerston North Flood Risks*, Manawatu Catchment Board and Regional Water Board, MCB Report No. 69, September 1986, p.18, Fig. 2.

³² *Manawatu Evening Standard*, 6 May 1941, p.4.

³³ *Manawatu Evening Standard*, 5 May 1941, p.7.

³⁴ *Manawatu Evening Standard*, 5 May 1941, p.8.

³⁵ *Times*, 5 May 1941, p.6.

This event was only one of a number of floods giving rise to concern in New Zealand around this time, including disastrous floods in Hawke's Bay in 1938.³⁷ Even prior to 1938, Bob Semple, Minister of Works in the Labour Government, had claimed "river control and river maintenance" were a serious problem for the country'.³⁸ Semple introduced a Rivers Bill to Parliament in 1941, emphasising 'unified control over the whole of the catchment of a river or group of rivers'.³⁹ As reported back from the select committee it also provided for soil conservation and in September was enacted as the Soil Conservation and Rivers Control Act 1941. A Soil Conservation and Rivers Control Council (henceforth SCRCC) was set up, with functions including soil conservation, flood prevention, advice 'to landholders in matters pertaining to soil conservation and reclamation' and coordination of central and local government in these areas of work.⁴⁰ The SCRCC also had extensive responsibility for Catchment Boards.

The Manawatu Catchment Board (henceforth the Board) was the first to be gazetted in 1943, and the second to meet, in July 1944,⁴¹ knowing 'that its first task was to control flooding in the Lower Manawatu'.⁴² By 1951 some city stopbanks had been raised or rebuilt, including from Fitzroy Street to Pahiatua Street and beside the present Massey University Hoko-whitu Campus. (See Map 3.) This action was of critical importance in 1953, when heavy rain fell on the east side of the Tararuas on 27 January, then on the west, with 126mm (4.96inches) in 48 hours. Once again, there was extensive flooding in the Te Matai area, with people leaving their homes as water rose up to the gasworks on Napier Road.⁴³ Thirty-six farms and 2000 acres were inundated.⁴⁴

³⁶ *Times*, 6 May 1941, p.6.

³⁷ C.A. Cowie (compiler), *Floods in New Zealand 1920-53: With Notes on Some Earlier Floods*, Wellington: The Soil Conservation and Rivers Control Council, 1957. The flood of 19 February 1938 in the Kopuawhara River washed through a workers' camp, killing 21 men, p.118. The Esk Valley flood of 23-25 April 1938 caused 'unprecedented damage to roads, bridges, fences, livestock, and other property', p.69.

³⁸ Michael Roche, *Land and Water: Water and Soil Conservation and Central Government in New Zealand 1941-1988*, Wellington: Historical Branch, Department of Internal Affairs, 1994, p.42.

Semple made this statement to Parliament in 1937.

³⁹ Central Districts Catchment Board, 'Section Ten – Board's History', Annual Report for Year Ending 30 September 1989, p.88.

⁴⁰ Roche, *Land and Water*, p.32.

⁴¹ Central Districts Catchment Board, 'Board's History'. Nelson Catchment Board was gazetted one day after Manawatu and met six days before Manawatu. The Manawatu Catchment Board was also responsible for the Otaki, Ohau and Waikanae rivers, p.91.

⁴² P.G. Evans, 'The Lower Manawatu River Control Scheme', reprinted from *N.Z. Engineering*, 19 (11): November 1964, pp.411-20.

⁴³ *Manawatu Evening Standard*, 28 January 1953, p.7.

At mid-morning on 28 January, the stopbank broke in the Manawatu/Albert Street area with 'about three feet of water roaring across the road ... and rising rapidly'. People were evacuated, some by boat, from Hokowhitu and Awatapu. There was flooding on the road to Massey College, with the Army 'operating a shuttle service' for those stranded.⁴⁵ Various other trucks were moving household belongings from flooded properties in Hokowhitu, with volunteers, including the Boy Scouts, lifting carpets and furniture.⁴⁶ By the afternoon the water was rising rapidly in the Transit Camp situated on the present Massey University Hokowhitu campus, becoming so deep that a large timber truck, three army pontoons and the boating club's craft were needed for evacuations. The Red Cross organised billets and transport for the 'women and children [who] were sitting forlornly on the roadside at the entrance to Centennial Drive, with the water lapping at their feet'.⁴⁷ Other residents readily took in those evacuated, about 150 being from the transit camp.

While miserable for those affected, for other city residents it was either a time to assist or a time to enjoy the drama of the occasion, even to play.

Trucks and lorries rumbling past with mattresses and furniture piled up added a touch of pathos to the scene. Meanwhile the children laughed and played.⁴⁸

Sightseers 'flocked out in brilliant sunshine'⁴⁹ hampering movement of vehicles carrying salvaged goods.⁵⁰ A 'continuous stream of cars' was reported at the corner of Albert and Ihaka Streets,⁵¹ and 'hundreds of people walked and drove to the Fitzherbert Bridge where a large crowd gathered to look down on the churning water'. Next day, with waters receding, the differing interests in the event continued. Families were cleaning up in areas described as a 'battlefield after the conflict' and the fire service was pumping water from homes, as 'slowly driven cars, obviously on sightseeing trips ... congested the streets and hindered the flow of vital traffic'. As well, 'hordes of small children had invaded the area and ...

⁴⁴ Brougham, McLennan, p.15. In total 422 sheep, 13 dairy cows and 458 pigs were lost.

⁴⁵ *Manawatu Evening Standard*, 28 January 1953, early ed., p.7.

⁴⁶ *Times*, 29 January 1953, p.7.

⁴⁷ *Manawatu Evening Standard*, 29 January 1953, p.7.

⁴⁸ *Manawatu Evening Standard*, 28 January 1953, 3.45pm ed., p.8. The household goods were taken to the city bus depot for storage.

⁴⁹ *Times*, 29 January 1953, p.7.

⁵⁰ *Manawatu Evening Standard*, 28 January 1953, early ed., p.7.

⁵¹ *Manawatu Evening Standard*, 28 January 1953, 3.45pm ed., p.8.

were splashing through the muddy waters' or riding bicycles 'at speed through the gutters'.⁵²

For many people the record Manawatu River flood ... spelt major tragedy, for others an almost unparalleled spectacle of elemental violence, for others again, a lot of sheer hard work.⁵³

The river, with a discharge of 3176 cubic metres per second (cumecs) peaked with a height of 6.51 metres at Fitzherbert Bridge. The peak held for 5 hours, but the river remained high for about 15 hours.⁵⁴ Claims were made of it being 'a crisis of the first magnitude'⁵⁵ but, as seen in Map 3, the city area inundated and the resulting devastation did not match that of 1941, with its lower peak and a discharge volume of 2605 cumecs. (See Table I, Appendix II.) The Board stopbanks and the 'throttling effect' of the Gorge were credited with preventing more widespread damage in the City.⁵⁶ The 1941 flood, of lesser magnitude, had covered a much wider area of the City, and entered 62 homes. In 1953, despite closer settlement, water entered only 16 houses and 25 units in the Transit camp.⁵⁷ But feelings remained strong about the river. 'The unruly river... made an unwelcome entrance to Lower Hokowhitu'⁵⁸ stated a newspaper editor. A reporter commented, 'the Manawatu River flows sullenly on as though unaware of the devastation which it has wrought during the past three days'.⁵⁹

The Mayor of Palmerston North expressed gratitude to the Board for

the protective works which averted a disaster in the recent flood [in particular] the foresight in constructing ahead of the main scheme the vital stopbank across the low area in the vicinity of the golf links [and hence preventing] a disaster comparable with that which occurred in 1941'.⁶⁰

⁵² *Manawatu Evening Standard*, 29 January 1953, p.7.

⁵³ *Manawatu Evening Standard*, 31 January 1953, p.7.

⁵⁴ Ian Matheson, 'Flood of 1953', notes from PNCC Report Book (Aug 1952 – June 1953), p.245, City Engineer's Report to Works Committee, CA file A175/66 pt.1. The height of the peak is recorded as 21ft 5in and remaining close to 20ft for 15.5 hours.

⁵⁵ *Manawatu Evening Standard*, 28 January 1953, 1st ed., p.7.

⁵⁶ Regional Council, 'Lower Manawatu Scheme Review Stage I: Ashhurst to Shirriff's Road, Progress Report: December 1992, p.6, describes the 'throttling effect' as reducing the peak discharge, but consequently extending the duration of the peak.

⁵⁷ *Manawatu Evening Standard*, 3 February 1953, p.6. 120-130 houses were also flooded in the Lower Manawatu rural areas.

⁵⁸ *Manawatu Evening Standard*, 30 January 1953, p.6.

⁵⁹ *Manawatu Evening Standard*, 30 January 1953, p.6.

⁶⁰ *Manawatu Evening Standard*, 3 March 1953, p.9.

The reference to the 'main scheme' was to a controversial flood control scheme for the Lower Manawatu, presented to the Board in 1950 by its Chief Engineer, Paul Evans.⁶¹ The 1953 flood was followed by announcement of a 3:1 government subsidy for the Evans scheme.⁶² Before work could be started, however, the Board had to carry out a Rating Classification to determine what level of benefit various ratepayers would gain and therefore pay for. This led to conflict and delay. There were over 160 objectors, mainly from areas downstream of Palmerston North but including eight Hokowhitu residents who, in spite of greater flooding potential, objected to their classification being different from the rest of the City.⁶³ Some in the rural areas accepted the proposed scheme because "something had to be done" after the 1941 and 1953 floods⁶⁴ but objections came particularly from the vulnerable Taonui and Moutoa areas. Reasons included a belief that the machinery could not do the job, that the benefits would not be obtained and also that 'the farmers subjected to frequent flooding had adapted to it', by running dry stock, rather than cash crops as in Opiki.⁶⁵ McNeill-Adams also views farmers as adapting to the flood situation.

The unpredictability of the river means farmers will either try to develop some form of flood protection ... or restrict the scope of farming activities.⁶⁶

The classification document was notified in 1953 and heard in the Palmerston North Magistrates' Court by R.M. Grant, who upheld the objections. Refusing to accept or amend the Board's Classification, Grant rejected it entirely. This frustrated the Board and worried the SCRCC as this process could hold up schemes of other Catchment Boards. It was suggested that some objectors only wanted a rating reduction, 'not an indefinite postponement'.⁶⁷ Amending legislation was passed in 1954, instructing Magistrates to accept or amend Classifications, but not to reject them completely. In 1955 Grant again rejected the Board's Classification on the grounds that it 'could be held to be a nullity i.e. of no legal validity'.⁶⁸ This judgement was taken to the

⁶¹ Central Districts Catchment Board, 'Board's History', p.92.

⁶² Brougham, McLennan, p.19.

⁶³ *Manawatu Evening Standard*, 26 June 1953, p.8. The Hokowhitu people objected to being classified E when the rest of city was classified F (the lowest classification).

⁶⁴ Jill White, 'Lower Manawatu River Flood Control Scheme', notes for a local history tour, record of conversation with Alan Akers, Opiki farmer, p.6, 15 August 1990.

⁶⁵ *ibid.*, record of conversation with A. Brown, Board Secretary (1960-1974), p.6, 16 August 1990.

⁶⁶ McNeill-Adams, p.22.

⁶⁷ M. Brougham, *An Examination of the Process by Which the Manawatu Catchment Board Implemented the Lower Manawatu Flood Control Scheme*, Palmerston North: Manawatu Catchment Board, July 1979, p.8.

⁶⁸ *ibid.*, p.10.

Supreme Court, then the Appeal Court. Finally the Classification was allowed and the way opened for the Evans flood control work on the Lower Manawatu.⁶⁹ Young and Foster give an insight into Evans' view of the river.

Evans considered himself a match for the river that he came to regard – and later respect – as a rather difficult and cunning child. In the previous 80 years there had been ... failure to acknowledge its fundamental character, nurture its development and curb its excesses.⁷⁰

Nevertheless, the Lower Manawatu Flood Control Scheme (LMS) acknowledged, and built upon, several earlier reports.⁷¹ It was designed to withstand a '100 Year Flood', or more correctly, a flood of that magnitude or greater having a 1% chance of occurring in any one year.⁷² The LMS included extensive stopbanks, rock protection work and emergency spillways. The city stopbanks were higher than those in rural areas, affording a greater level of protection. The most innovative aspect of the LMS was the construction of the Moutoa floodgates at Wall's spillway, 38.5 km from the sea. This allowed water to be diverted into 9.5 km of stopbanked floodway, meeting the river again at Whirokino. (See Map 1.) Coupled with the 'Whirokino cut'⁷³ of 1942, the passage to the sea was considerably shortened and the river, winding across the Moutoa Basin, had therefore to carry only a fraction of the floodwater.⁷⁴ The purpose of the floodgates and floodway was to protect the farmland below the gates, the new or raised stopbanks further upstream protecting the City. 'The bulk of the scheme works were completed by 1965 with some minor construction extending to 1968.'⁷⁵

⁶⁹ Roche, *Land and Water*, pp.48-51.

⁷⁰ David Young, Bruce Foster, *Faces of the River: New Zealand's Living Water*, Auckland: TVNZ Publishing, 1986, p.136.

⁷¹ Evans, 'Lower Manawatu Scheme', in particular describes the report of J.E. Fulton, railways engineer. Fulton, on determining the carrying capacity of the river through the Gorge, concluded that channel improvements and stopbanks would contain such a flood to Poplar Bend, a point 24 miles (38.4km) from the river mouth. After this point, as the river meandered over almost flat land, 'a channel should be cut ... to Whirokino and the river be turned into it ... to rejoin again at Whirokino', (p.411). Evans also acknowledged the reports of F.C. Hay, A.P. Grant and D.J. Halley, the Board's first engineer, (p.412).

⁷² The '100 Year Flood' (or 100 year return period) measure used by Evans was a peak flow of 150,000 cubic feet per second (cusecs) or, in current units, 3,450 cumecs. However, since 2004 the 100 year return period flood is estimated at 3,700 cumecs. 'Lower Manawatu Scheme – Progress on Reassessment Following Flood of Feb 2004 and Works Programme for 2004-2005 Construction Period' report to River and Drainage Committee, 7 December 2004, p.43, Item 8, Manawatu-Wanganui Regional Council, Agendas and Reports Aug-Dec 2004, HA book 5/2/64.

⁷³ The Whirokino Cut had shortened the river by almost 9 kms by cutting off the loop of river that flowed past Foxton township.

⁷⁴ Evans, p.413.

⁷⁵ Central Districts Catchment Board, 'Board's History', p.94.

The City was prosperous and growing but subdividable land that was relatively inexpensive to develop was in short supply, notwithstanding that Kairanga County, after years of acrimony, did transfer more land to the City in 1967.⁷⁶ The LMS allowed more intensive residential development closer to the river, both in Hokowhitu and Awapuni.

The Board became concerned that protection could lead to complacency and a lack of appreciation of the importance of maintaining the integrity of stopbanks, structures vulnerable to intrusive human activities as well as overtopping and undermining. In 1967 the Board reminded the City Council of the high level of protection on both the Manawatu River and Mangaone Stream and the need to maintain the strength of the stopbanks.⁷⁷ The Board was 'perturbed' that subdivision of the land recently transferred from Kairanga County to the City could lead to stopbanks or berms being included in residential properties, with loss of access to carry out protection work. Also of concern was the 'interference' by property owners who built intrusive structures or altered stopbanks for aesthetic reasons. The Board claimed that 'Ratepayers who have built in the Hokowhitu area, by reason of the protection afforded by the Board's work, now approach the Board with fear as to whether the work carried out by other ratepayers in interfering with the stopbanks will adversely effect [sic] them during a flood'.⁷⁸

Two decades later these matters arose again, with a 'joint technical committee' of the Board and PNCC formed, 'to act urgently on the problem of illegal trees, sheds, sundecks and retaining walls on the banks'.⁷⁹ The local newspaper took up the issue, '[urging] people to leave the stopbanks alone, or take expert advice', claiming danger to

⁷⁶ Matheson, *Council and Community*, p.39. The airport, railway line and Mangaone floodplain placed some restrictions on growth. The 1950s had seen land at Milson, Cloverlea, Awapuni and some of Kelvin Grove brought into the city, but Kairanga did not want to '[sacrifice] more fertile land at the Longburn end of the city'. Kairanga's preference was for the city to develop across the river at Aokautere, but the Council was originally reluctant because of the cost of providing services.

⁷⁷ J. D. Moncrieff, Chairman, Manawatu Catchment Board, letter to Mayor and Councillors, Palmerston North City Council, 12 September 1967, CA file A175/66 pt.2. The city benefits referred to were not just from the Manawatu River stopbanks, which were higher than elsewhere and designed to have a 900mm freeboard above the design flood level, but also in the work done to straighten, deepen and stopbank the Mangaone Stream and to divert part of the Kawau Stream into the Mangaone. These two streams posed a threat to the south west end of the city, as happened in the flood of 1988, which resulted in people being evacuated in the middle of the night from the Amberley Avenue area.

⁷⁸ Moncrieff, p.3. Emphasis added. Palmerston North was very unusual in having stopbanks in private ownership.

⁷⁹ *Evening Standard*, 17 June 1987, p.4.

'lives and properties'.⁸⁰ Throughout 1987 and 1988 considerable publicity was given to the flood risk from the Manawatu River, with emotive headlines varying from, 'Palmerston North: The flood risk runs high',⁸¹ to 'Taming the wayward beast'.⁸²

Tensions arose periodically between the Board and PNCC, and the Board and ratepayers who owned stopbanks. PNCC, going through a District Scheme Review, agreed to a Board request to increase the building line restriction on stopbanks from the current 0.3 metres to six metres, to allow access to stopbanks. As this led to a newspaper headline, 'Catchment proposal threatens land values',⁸³ it was not surprising that of 336 objections to the Scheme Review, about 100 were to the six-metre proposal.⁸⁴ The Board, on legal advice, withdrew its six-metre restriction proposal, later moving to a bylaw process to impose some restrictions on property owners.

At the same time, serious concern about the possibility of collapse of the stopbanks through erosion or 'piping' or being overtopped, had led to a lengthy process of inspecting, upgrading and rebuilding stopbanks. A 'worst-case scenario' map indicated devastation in the south and west of the City if stopbanks failed.⁸⁵ Areas of weakness in the stopbanks were identified with the probability that Fitzroy Bend was 'most at risk'.⁸⁶

City Councillors were vocal in their response when informed early in 1988 that some necessary work would be delayed. The Deputy-mayor was adamant that the Board 'must work to restore the effectiveness of the Manawatu River stopbanks before winter', and that 'it would be indefensible if the board was delaying the \$190,000 improvement works ... because it didn't have the money'.⁸⁷ The Chief Engineer of the Board responded that the Councillors' comments were 'emotive and unwarranted', and gave an overview of the Board's work programme.⁸⁸ The Deputy-mayor challenged these remarks, claiming an 'inconsistent approach', a report that 'contradicted' the

⁸⁰ *Evening Standard*, 18 June 1987, p.2.

⁸¹ *Evening Standard*, 10 October 1987, p.6.

⁸² *Evening Standard*, 19 March 1988, p.5.

⁸³ *Evening Standard*, 27 August 1987, pp.1,3. The affected property owners along the Manawatu River stopbanks were from Ruamahanga, Roxburgh, Waterloo and Buick Crescents, Salisbury and Heatley Avenues and Opawa Place. Property owners on the Mangaone and Kawau streams were also affected.

⁸⁴ *Evening Standard*, 11 November 1987, p.4.

⁸⁵ Brougham, McLennan, p.59, Fig. 12, 'Palmerston North City Flood Hazard Areas'.

⁸⁶ *ibid.*, p.60.

⁸⁷ *Evening Standard*, 10 February 1988, p.3.

⁸⁸ *Evening Standard*, 11 February 1988, 2nd ed., p.1.

Board Chairman and that 'the council had been expressing its concerns to the board over its inaction on the stopbanks since before last September'.⁸⁹

The Board soon found itself in another dispute, this time with property owners over its proposed bylaw, the core of which prohibited any structures, including fences, being built within 0.3 metres of a stopbank and any excavations being carried out within 8 metres. It also gave access rights to the Board and imposed severe penalties on property owners for offences.⁹⁰ The bylaw was labelled 'draconian and counter-productive' by a group of property owners⁹¹ and 'drew a hostile reaction from a 120-strong crowd at a public meeting'.⁹² However, the Board met with property owners and satisfied many concerns, by clarifying responsibilities and indicating which plantings would be permissible on the stopbanks.⁹³

The way ahead was thus paved for the Manawatu-Wanganui Regional Council (henceforth the Regional Council), as it took over the functions of the Board in 1989. By early 1992 an extensive Review of the LMS had commenced, with the protection of Palmerston North being Stage I. The aim was:

To review existing flood protection measures, and to recommend works and practices which provide, in social and economic terms the optimum level of mitigation against flood hazard presented by the Manawatu River between Ashhurst and Shirriff's Road, with particular attention paid to the Palmerston North urban area.⁹⁴

The Review included computer modelling of the floodplains and river hydraulics, the generation of flood hazard maps⁹⁵ and a 1:100 working model of the river set up in Lower Hutt.⁹⁶ Knowledge was also gained from the flood of July 1992. With a discharge flow of 2830 cumecs, this was of greater magnitude than the 1941 flood, the largest since 1953 and the sixth largest on record, to that time. It was regarded by the Regional Council as a chance to calibrate instruments and as 'a good test of Scheme works'.⁹⁷ No banks were breached, but where upgrading had not occurred farmers suffered considerable damage through stock losses and inundated paddocks. In the

⁸⁹ *Evening Standard*, 13 February 1988, p.1.

⁹⁰ *Evening Standard*, 23 July 1988, p.3.

⁹¹ *Evening Standard*, 13 September 1988, p.3.

⁹² *Evening Standard*, 16 September 1988, p.1.

⁹³ *Evening Standard*, 19 November 1988, p.35.

⁹⁴ Regional Council, *LMS Review Stage 1*, Progress Report, p.1.

⁹⁵ *ibid.*, p.2.

⁹⁶ *Evening Standard*, 29 October 1993, p.2.

⁹⁷ Regional Council, *LMS Review Stage 1*, Progress Report, p.3.

rural parts of the City a handful of rescues were carried out by helicopter and jet boat.⁹⁸ Within the urban area damage was minimal, with some surface flooding.

For city residents it was an occasion for enjoying the Manawatu River as it provided another 'spectacle of elemental violence'. As in past floods sightseers flocked to the stopbanks and Fitzherbert Bridge to witness an awe-inspiring sight, but with the 1992 event there were no flooded homes, and no evacuees and helpers for the sightseers to hinder. However, the Regional Council estimated that had there been no stopbanks protecting the City, '300 to 400 houses and 20 shops would be inundated ... and another 300 houses would be surrounded by water'.⁹⁹ It was claimed that the restorative works on a 'long section of the bank' in 1989-90 was a 'timely intervention prior to the flooding of 1992'.¹⁰⁰

Standing on the stopbanks at Fitzroy Bend, viewing the river in the 1992 flood, the power of the water was very obvious.¹⁰¹ Not surprisingly, the LMS Review once again highlighted the risk of the stopbank being undermined on the outside of Fitzroy Bend.¹⁰² The implications of a breach and flow into the old watercourses would, by 1992, have been catastrophic, given the intensive development in the low-lying parts of the City. The Chairman of the Regional Council described the 'main threat' to the City being such a break, leading to 'hundreds of houses' being inundated, 'up to \$700 million in damage' and lives threatened.¹⁰³ One of the key questions in the Review was therefore how best to deal with the Fitzroy Bend risk.

In 1994 there were several options presented, from doing nothing, to lining the Fitzroy Bend with heavy rock, to realigning the river.¹⁰⁴ There were discussions with PNCC, information supplied to city ratepayers, and a public liaison committee, which included Council representatives, set up to negotiate with potentially affected landowners. The latter ensured that residents most affected had their concerns heard and worked

⁹⁸ *Evening Standard*, 23 July 1992, p.1.

⁹⁹ Regional Council, 'Lower Manawatu Scheme Review: Briefing Paper for Public Meeting – 1 Feb 1994', p.2, in private collection of Jill White.

¹⁰⁰ Barry Goodwin, *Report and Future Maintenance Recommendations: Manawatu River Stopbank, Ruamahanga Crescent to Ruahine Street*, Palmerston North: Horizons Regional Council, July 2005, p.2.

¹⁰¹ Jill White, personal observation, 23 July 1992.

¹⁰² Regional Council, *LMS Review Stage 1*, Progress Report, p.2.

¹⁰³ *Evening Standard*, 31 January 1997, p.1, quoting Don Linklater, Chairman, Regional Council.

¹⁰⁴ G.S. Doull, Senior Design Engineer, *Lower Manawatu Scheme Special Project, Palmerston North Flood Protection*, Regional Council, 1994, pp.3,4.

through.¹⁰⁵ Although some ratepayers quibbled at the costs, the decision was taken to realign the river at the Fitzroy Bend, with a \$3.4 million diversion, completed in 1997.¹⁰⁶ Accompanying this was a process for upgrading or building new stopbanks, and for rock protection work including at Dittmer Drive, downstream of the Esplanade. The Stage 1 work, aimed at protecting the City, was completed at a total cost of \$7 million. The protection design was for a flood of 4,500 cumecs, thought at that time to have a 2000 year return period and now calculated at a 500 year return period.¹⁰⁷

The completed Stage I was tested in February 2004 when the lower North Island was subjected to devastating floods that caused havoc in every district in the Manawatu-Wanganui region except urban Palmerston North, notwithstanding a peak flow in the Manawatu River of 3502 cumecs. This was the third largest flood since European settlement and equated to a height of 8.92 metres.¹⁰⁸ The upgraded stopbanks held in Palmerston North although once again parts of Te Matai were badly affected, with stock and hay being swept away.¹⁰⁹ River water covered small areas that were outside the stopbanks, including Paniere Park at the southern end of the City,¹¹⁰ one green on the Manawatu Golf course¹¹¹ and Waterloo Park. Stopbanks on the Manawatu River were breached downstream, with extremely severe effects on farms in the Moutoa area.

As in 1941, 1953 and 1992, sightseers were out in force.

In Palmerston North, an out-of-control Manawatu River raging under the Fitzherbert Avenue bridge became the city's top sight-seeing attraction as traffic snarled at its entrances and made its way slowly across.¹¹²

¹⁰⁵ Regional Council, 'Lower Manawatu Scheme Review: Briefing Paper For Public Meeting – 1 Feb 1994'; and 'Notes from the LMS Review Public Liaison Committee Meetings', 6 April 1994, 5 May 1994, 7 June 1994, in private collection of Jill White.

¹⁰⁶ *Evening Standard*, 30 April 1997, p.3.

¹⁰⁷ The design flood of 4,500 cumecs had been estimated by the National Institute of Water and Atmospheric Research (NIWA) to have a 2000 year return period or 0.05% chance of being equalled or being exceeded in any one year. The 500 year return period, gives a '4% chance of being equalled or exceeded during a 20 year period'. 'Lower Manawatu Scheme Flood Protection – City Reach', report to River and Drainage Committee, 12 April 2006, Annex A to Item 5, p.25, Manawatu-Wanganui Regional Council, Agendas and Reports, Jan – April 2006, HA book 5/2/74.

¹⁰⁸ *Manawatu Standard*, 17 February 2004, p.1. This peak was at 4pm, Monday 16 February. The *Manawatu Standard* 'Flood Special' of 25 February 2004, p.13, details the deteriorating pattern of weather after the high pressure system of Waitangi weekend moved off the country.

¹⁰⁹ *Manawatu Standard*, 17 February 2004, p.4.

¹¹⁰ *Manawatu Standard*, 24 February 2004, p.20.

¹¹¹ *Manawatu Standard*, 19 February 2004, p.20.

¹¹² *Manawatu Standard*, 17 February 2004, Flood Extra, n.p.

Children were also playing as they ‘fashioned mudslides from gentle slopes’ near the bridge and ‘kayakers honed their oarsmanship at the river edges’.¹¹³ One reporter commented that, ‘Fitzherbert Bridge took on a carnival atmosphere ... as people gathered to watch what appeared to be entire forests sweeping underneath and out to sea’.¹¹⁴

Reporter Janine Rankin, writing as a parent, described perceptions of threat, of being protected and of awe, after she had rushed to collect her children from school at lunchtime.

Last week’s floods spared most of us in the city, thanks to an engineering triumph then there was an almost palpable feeling of relief in our neighbourhood. The peak had passed with half a metre of stopbank to spare, and the afternoon off school could be counted an adventure, not a frightening heartbreak We joined a long line of spectators on the stopbank watching nature’s fury rush by just a pace or two in front of us. It was eerie.... The children have the luxury of confident assurances that they are safe. They’ve seen the stopbanks working and they believe it.¹¹⁵

However, had the flood reached the supposed design level of 4,500 cumecs, banks would have been overtopped, because, in the event, the river ran at a higher level than expected for a 3,502 cumecs flood. While giving adequate protection, the freeboard on the stopbanks varied and there was ‘less of a safety margin than the design envisaged’.¹¹⁶ This led to a plan for further works on the stopbanks within the city urban area to establish the 4,500 cumecs level of protection, providing for the one in 500 year return flood or a 0.2% chance of such a flood or greater in any one year.¹¹⁷

In February 2004 there was general agreement in the City with the Chief Executive of the Regional Council, that the \$7 million spent in the 1990s ‘was repaid on one day’.¹¹⁸ While demonstrating that it was worthwhile to pay this cost, the 2004 flood event may nevertheless have increased a perception of protection, which is not fully justified. Ericksen noted that,

altering the physical event system significantly alters the flood perception of protected floodplain occupants. In doing so, it appears to imbue optimism well beyond that warranted by the designed level of protection’.¹¹⁹

¹¹³ *Manawatu Standard*, 17 February 2004, Flood Extra, n.p.

¹¹⁴ *Manawatu Standard*, 21-22 February 2004, p.6.

¹¹⁵ *Manawatu Standard*, 24 February 2004, p.4.

¹¹⁶ Regional Council, ‘LMS Flood Protection – City Reach’, 12 April 2006, Annex A to Item 5, p.24.

¹¹⁷ A.D. Cook, Group Manager Operations, ‘Lower Manawatu Scheme Flood Protection – City Reach’, report to River and Drainage Committee, 9 August 2006, Annex A to Item 8, Manawatu-Wanganui Regional Council, Agendas and Reports, June – Sept 2006, HA book 5/2/76.

¹¹⁸ *Manawatu Standard*, 27 February 2004, p1.

¹¹⁹ Ericksen, p.4.

The adjustments made by local authorities in their efforts to reduce the flood hazard in Palmerston North have increasingly been in the 'modifying the flood' category of Ericksen. The City, in common with most New Zealand communities situated on a floodplain and wanting room to grow, has found itself progressively committed to putting more resources into modifying the event, with only limited commitment to modifying human use of land. At the time of the 1941 flood, farms, orchards and market gardens covered most of Hokowhitu, but by 1953 the perception was that protection came through stopbanks and that closer settlement was justified. Ericksen comments that developments in flood-prone areas

have sometimes been accompanied by negotiations with territorial local authorities and catchment authorities for the 'protection' of flood-affected areas, as for example in Palmerston North in the 1950s.¹²⁰

The LMS signalled a definite and, by implication, ongoing commitment to modification of the flood event, which has been reinforced by subsequent activities of the Board and then the Regional Council.

Alternative approaches have not been fully exploited. Housing infill in Hokowhitu in the past twenty years suggests that the Council, in the face of local pressure, has not made full use of the ability to control land use. Ericksen, however, does give credit for 'flood-sensitive planning in Palmerston North', in the example of the Palmerston North golf course established on 'flood-prone land along the Manawatu River'.¹²¹ Harding analysed and coded aspects of the plans of several local authorities, including PNCC, to get a picture of land use policies aimed at reducing susceptibility to flood loss. The results showed a lack of comprehensive planning. For hazard mapping, PNCC 'scored reasonably well although not as well as would be expected for an area with such a salient flood hazard'.¹²² A flood protection zone was shown, but with no clarity about magnitude of hazard. PNCC scored poorly for hazard reduction objectives, for enhancing city dwellers' knowledge of hazards, and for estimates of exposure (numbers of people and potential losses of property). Credit was given for the use of esplanade reserves for flood management, for the 'specification of permitted and prohibited activities in area

¹²⁰ Ericksen, p.157.

¹²¹ Ericksen, p.152, Photo 8.1. The Esplanade and the Manawatu Golf Course are also on flood prone land, but these are more accidents of history. The Esplanade was given reserve status in 1890 and the golf course was formed in 1895. Paniere Park is outside the stopbanks and forms a ponding area as does Waterloo Park further upstream.

¹²² Harding, p.69.

known to flood' and 'for recognizing protections are not infallible'.¹²³ Harding also interviewed planning staff. The flood protection zone and minimum floor levels in 'identified ponding areas' were the main non-structural methods used by PNCC.¹²⁴

Emergency action to reduce flood loss was seen in the 1941 flood and again in 1953, when many organisations, including the City Council, quickly became involved in rescue and salvage efforts. In the 1980s PNCC sponsored forums where a range of organisations discussed action needed in a variety of civil defence scenarios, including floods.¹²⁵ In recent years 'emergency management' preparedness has taken on even greater prominence with directives from central government. Nevertheless, if the structural protection of the stopbanks failed in Palmerston North, the potential magnitude of the event could mean the civil defence system would be stretched well beyond its capabilities in trying to ensure the safety of residents.

Modifying flood losses also includes the ability of individuals or communities to recover, to be rehabilitated. In major disasters, as in the 2004 floods, government at all levels and voluntary agencies may be involved for long periods in rehabilitation efforts. Private insurance and public relief initiatives also come into this third group of adjustments, sometimes with little change in the risk situation. Ericksen states that,

Funds received by individuals and communities can be used to implement measures that will reduce future flood-loss susceptibilities – such as changing land uses and locations or flood-proofing existing uses. Conversely, it is common to find that aid given is used to reinstate pre-flood conditions and thereby the flood-loss potential.¹²⁶

This aspect has not been tested in Palmerston North in recent decades. Mayoral relief funds to assist those affected by the floods were set up in the City in 1941 and 1953.¹²⁷ The Mayor received some criticism in 1953 from those who thought his appeal was not ensuring adequate help to victims from the transit camp.¹²⁸ Although suffering little damage and loss in the 2004 flood compared with other districts in the region,

¹²³ Harding, pp. 70-72.

¹²⁴ Harding, p.85. *Evening Standard*, 2 March 1989, p3, quoted the City Engineer as stating that 'minimum floor heights existed in the Amberley Avenue area and were being applied to some recently sub-divided sites in Jickell Street near Centennial Lagoon'.

¹²⁵ This preparation was useful in 1988 during the evacuation and welfare efforts made by Civil Defence and volunteers when waters from the Mangaone and Kawau Streams and Pioneer Highway Drain inundated parts of the southwest of the city.

¹²⁶ Ericksen, p.109.

¹²⁷ Ian Matheson, 'Flood of 1941', notes from PNCC Report Book, Feb 1952 – May 1943, p.55, Town Clerk's Report for 1941– 42, CA file A175/66 pt.1.

¹²⁸ For example, *Manawatu Evening Standard*, 9 February 1953, p.6, letter from F.W. Manning.

Palmerston North residents who were affected did receive some assistance from the massive outpouring of relief monies from throughout the country, matched and doubled by the Government.¹²⁹ It is uncertain whether this was used by individuals to reduce flood loss susceptibility or used to reinstate pre-flood conditions.

Conclusion:

A significant part of the development of Palmerston North has been determined by its position on a floodplain of the Manawatu River and the efforts to prevent flooding of the City. The history of the City has, in part, been that of contest between the nature of the river and the human efforts to control its vigour and its meanderings. Emphasis through the period from 1941 to 2006 has increasingly been on controlling the river through channel works and protecting the City by stopbanks, with this trend being irrevocable with the commitment of the Board and the City Council in the 1950s and 1960s to the LMS.

The LMS however, brought conflict in the 1950s between the Board and those city and downstream ratepayers reluctant to accept the benefit classification. This in turn led the Board into conflict with the Court. The 1980s also brought conflict between the City Council and the Board about the rate of progress in upgrading stopbanks, and between the Board and property owners about maintenance of stopbanks. However, in the 1990s, conflict over the major works to upgrade the city's protection was mitigated by negotiation with those most directly affected by the works.

The City, which needed room to grow, has perceived protection from the threat of flooding in the LMS and has closely settled areas that previously had been extensively covered by floodwaters. The magnitude of risk is therefore much greater in the event of failure of the system or of a flood above the design level of protection. The City has allocated considerable sums of money to maintain the integrity of the system and in particular to deal with the risk that has been perceived at Fitzroy Bend for a century.

Although the Manawatu River has not caused significant damage in urban Palmerston North since 1953, the drama of the river in flood still has citizens flocking to the

¹²⁹ The Manawatu-Wanganui Regional Disaster Relief Fund Trust allocated \$49,000 to Palmerston North residents affected by the flood. Papers in private collection of Jill White.

riverside or Fitzherbert Bridge, 'enjoying' the awe-inspiring spectacle it presents when in flood, and maintaining a faith, which may or may not be justified, in a system of protective stopbanks.

Chapter Three: Recreation and the river – has the City turned its back?

'It is our biggest and, perhaps, our most precious natural resource.'¹

'So many people in the city feel we turn our back on the Manawatu River.... We don't take advantage of it...'²

Recreational use of the Manawatu River has grown substantially since the early 1960s but in the process the river and riverbank have been contested spaces. On the river this conflict has been particularly between jet boaters and other users. Increasingly through the 1970s and 1980s the river from Ashhurst to just below the City became strongly contested, as the new phenomenon of jet boats, with their speed and noise, challenged more traditional users of the river – fishermen, canoeists and those swimming, picnicking, raft racing or enjoying various 'unorganised' activities. A major mechanism for working through these conflicts was the Manawatu River Users Association (henceforth MRUA), a body with no statutory existence, yet providing an important interface between civil society and statutory authorities. On the other hand, the overt contest on the riverbank has been between those walking, running or horse riding and those on motorcycles and, to a lesser extent, bicycles. There has been no formalised structure through which the protagonists can meet and processes for resolution of conflicts have therefore largely been absent. A further, hidden contest on the riverbank has been between generations as adult use has taken over what was wilderness territory of children.

While watching floods has provided a recreational pursuit for some, by the 1960s people were looking for increased everyday recreational opportunity from the river. A change in attitude was articulated in a 1964 editorial stating, 'now that the possibility of flooding is assumed to have been entirely removed ...many people are looking afresh at the opportunities [the river] offers'. The editor considered that although swimming and fishing had occurred 'from the earliest days of the settlement', apart from annual canoe races the city portion of the river was 'made little use of'.³ Notwithstanding that comment, Young and Foster note that the Palmerston North Canoe Club (henceforth the

¹ *Evening Standard*, 26 May 1984, p.6, commenting on the report of N.R. McLennan, S.A. Reid, *Informal Recreational Use of the Manawatu River and its Tributaries*, Report No. 60, MCB, April 1964.

² *Tribune*, 9 May 2004, p.3, Palmerston North City Councillor Heather Tanguay's 'Hot Line'.

³ *Manawatu Evening Standard*, 26 March 1964, p.10.

Canoe Club) had been 'strong in racing since 1922' and in 1954 had turned on a display in the Gorge 'to demonstrate their prowess and allegiance' to the Queen and Duke of Edinburgh when their tour took them by train through the Gorge.⁴ Although the greatest challenges were in the Manawatu Gorge, the river from Ashhurst to Opiki had 'small rapids ... for beginners'.⁵

There was also a Palmerston Boating Club in existence by 1947, with photographs showing a boat race on 26 and 27 December that year, starting at Fitzherbert Bridge and finishing in front of a large crowd of spectators at Foxton Beach.⁶ Further photographs, undated, but by the clothes likely to be in the late 1940s or 1950s, show boat races between the Fitzherbert Bridge and the Opiki Toll Bridge, with rowing boats, canoes and kayaks. Spectator interest from Fitzherbert Bridge was high.⁷

Responsibility for activities on the river involved the Board, which by 1968 included the Regional Water Board,⁸ as well as the Marine Division of the Ministry of Transport (henceforth the Marine Division), which administered the Motor Regulations 1962. These regulations related to speed of craft on the river. There was a right of navigation, but speed was effectively restricted to 5mph without approval by the Marine Division.⁹ These restrictions became a significant source of conflict.

⁴ David Young, Bruce Foster, *Faces of the River: New Zealand's Living Water*, Auckland: TVNZ Publishing, 1986, p. 131.

⁵ I.W. Milne, for Secretary, New Zealand Canoeing Association, letter to the Secretary, Manawatu Catchment Board, 1 November 1975, HA file 1/5/3 vol.2. This letter was stimulated by the possibility of use of the river for small-scale hydro-electricity generation.

⁶ 'Palmerston North To Foxton Boat Race', 26/27 December 1947, a series of nine photographs supplied to Jill White by Noeleen Olson, June 2006.

⁷ Seven photographs supplied by Noeleen Olson to Jill White, 28 September 2005, with accompanying letter in which she identifies Mr Dilks as organiser.

⁸ The Water and Soil Conservation Act 1967 complemented the soil conservation and river control functions of the 1941 Act by a '...focus now turned to the allocation of water among competing agricultural, industrial, domestic and subsequently recreational and scenic uses.' (Michael Roche, *Land and Water: Water and Soil Conservation and Central Government in New Zealand 1941-1988*, Wellington: Historical Branch, Department of Internal Affairs, 1994, p.97.) This Act included the creation of Regional Water Boards, having the same membership as the relevant Catchment Boards. (p.107.) The Manawatu Catchment Board formed a Regional Water Board in December 1968. It met following the Catchment Board meeting and initially had more to do with water rights of farmers than with recreational issues. (*Evening Standard*, 18 December 1968, p.4.) The Water Board functions under the 1967 Act included the recreational use of waterways, while the Catchment Board had responsibility for flood control.

⁹ The speed restriction of 5mph for powerboats on the river became 8kmph with the metric system, but then the nautical 5 knots came into vogue.

In the early 1970s most recreational conflicts were on the Lower Manawatu River near Whirokino and Foxton, where recreational use was increasing markedly, but disputes there were to have consequences for the river flowing through Palmerston North City. Activities in the lower reaches included powerboat regattas, water skiing, whitebaiting, sailing and ornithology. Palmerston North people were active in sailing and water skiing and played key roles in several clubs.¹⁰

The MRUA, which became the key to the management of conflict, arose as a result of a meeting at Foxton in April 1973, called by the Board.

Owing to a large misconception having arisen as to the use of the Manawatu River in its lower reaches, the Board has decided to call a public meeting of all interested parties so that a better understanding can be achieved.¹¹

The 'misconception' related to the different authorities administering the river and there was an extended dispute as the Board and the Manawatu Power Boat Club talked past each other. The Board believed slipway works by the Club threatened its 'investment' in the flood control scheme,¹² while the Club wanted an area for water skiing where the 5mph speed restriction would be lifted.¹³ The Board therefore invited a Marine Division representative to the Foxton meeting to 'authoritatively' explain the Motor Launch Regulations and

thus it should be possible to agree upon an area of the Manawatu River estuary where water skiing can be undertaken but also providing areas for other sports to enjoy their particular type without upsetting other participants.¹⁴

A high level of public interest was demonstrated by the attendance of over 120 people.¹⁵ Afterwards, the Vice-Commodore of the Manawatu Marine Boating Club, Peter Barter,¹⁶ called together interested groups, to form a

¹⁰ For example, J. Hollows, Commodore of Manawatu Power Boat Club, 1970; Peter Barter, Vice-Commodore Manawatu Marine Boating Club, 1973; Michael Price, Secretary, Manawatu Sailing Club, 1973.

¹¹ A.T. Brown, Board Secretary, 'Manawatu River', letter of invitation to Foxton Borough Council and 10 other organisations, 26 March 1973, HA file 1/5/3 vol.1.

¹² A.G. Leenards, Chief Engineer, Manawatu Catchment Board, in a letter to the Manawatu Power Boat Club, 17 March 1971, HA file 1/5/3 vol.1.

¹³ *Evening Standard*, 3 April 1973, p.1, reported that there had been an unrestricted area one mile above the Whirokino Bridge but this had expired and that the clubs didn't think it was a suitable area anyway.

¹⁴ A.T. Brown, Board Secretary, letter to Regional Marine Officer, Marine Division, 15 March 1973, HA file 1/5/3 vol.1.

Working Committee ... to reach agreement on the use of the river taking into account the varied interests of all concerned, and make recommendations to the Marine Division ... for certain speed and area classifications to best serve the interests of all.¹⁷

The 'Working Committee', which became the Manawatu River Users Association (MRUA), first met on 2 May 1973, with representatives from 20 interested organisations.¹⁸ Peter Barter was in the chair and six other Palmerston North people represented clubs. These included the specially invited Canoe Club, 'whose interests relate to the "City" area'.¹⁹ Thereafter MRUA met under the auspices of the Board. Initially most of the work was centred near the Whirokino Bridge, including determination of areas where the speed restrictions were lifted for powerboats and water skiing as demands on the area increased through the 1970s.²⁰

The MRUA was tasked with ensuring fairness and co-operation in the use of the river, but authority remained with the Board. Applications for concessions were processed through the MRUA with recommendations to the Board. There were attempts each year to obtain a calendar of events, to give certainty and avoid clashes. Certain times were sacrosanct for particular organisations, including the beginning of the shooting season for waterfowl.²¹ Initially, uplifting of the speed regulations required a recommendation from the Board to the Marine Division for formal approval, setting of

¹⁵ R.W. Bennett, Board Secretary, 'Manawatu River Users Association', background notes accompanying applications to territorial local authorities for funding assistance via Local Scheme Recreation and Sport Subsidies, 28 July 1977, HA file 1/5/3 vol.4.

¹⁶ Peter Barter was also a Palmerston North City Councillor, 1971-1977. Ian Matheson, *Council and Community, 125 Years of Local Government in Palmerston North 1877-2002*, Palmerston North: Palmerston North City Library, 2003, p.94.

¹⁷ Peter Barter, Manawatu Marine Boating Club, letter of invitation to the Secretary, Manawatu Catchment Board and other organisations, 6 April 1973, HA file 1/5/3 vol.1.

¹⁸ *Evening Standard*, 3 May 1973, p.1.

¹⁹ Peter Barter, letter to the Secretary, Manawatu Catchment Board, 9 May 1973, HA file 1/5/3 vol.1. The clubs listed with Palmerston North addresses were Royal Forest and Bird Protection Society, Manawatu Power Boat Club, Palmerston North Jet Boat Association, Manawatu Sailing Club, Rifle, Rod and Game Club, and Manawatu Marine Boating Club with two representatives, one of whom, Peter Barter, was in the Chair.

²⁰ The Chairman of MRUA, in 1979 claimed that 'Over the past decade the number of boats of all types has increased ten fold and areas are becoming overcrowded'. Increased petrol prices also meant 'people who previously frequented Taupo for their boating pleasures are now looking for suitable areas closer to home'. (J.G. Law, Report read at a meeting with Mr J. McLean, Commissioner of Crown Lands, 21 March 1978 at the Moutoa Estate, HA file 1/5/3 vol.5.) Law was a member of the Board and one of its representatives on the MRUA.

²¹ For example, Minutes, MRUA, 9 December 1980, Item 5, HA file 49/32/1 vol.1, report that the Canoe Club applied for three races for 1981, but one was declined because it coincided with the start of the duck-shooting season.

conditions and gazetting.²² However, in 1980 the Board was persuaded by the Ministry of Transport to apply for a Grant of Control over the waterways in its region. This became effective from 1 October 1980 and uplifting speed restrictions then simply involved a recommendation by the MRUA to the Board for a final decision.²³

Raft races, a tradition since at least the late 1950s in the city stretches,²⁴ became subject to MRUA recommendations to the Board. A drowning did not halt these events continuing through the 1970s and 1980s, although safety requirements were enhanced.²⁵ Many different organisations held raft races. The Awapuni Jaycees' event, in 1975, was between Te Matai Road and the Fitzherbert Bridge.²⁶ Linton Army Camp, early in 1976, raced from the Fitzherbert Bridge to the Kahuterawa Stream.²⁷ The Hokowhitu Venturer Scouts and Massey University Students Association held raft races through the city stretch of the river for many years. The raft race calendar for 1981 included DB Fitzherbert Social Club, Roslyn Youth Group, Massey University Veterinary Students' Association, the Seventh Day Adventists' Social Committee, Post Office Telecom's Social Club and the Hokowhitu Venturer Scouts. Delegated authority to approve the increasing number of raft races, hence speeding up allocation of space and time, was given to the Secretary and the Chief Engineer of the Board in 1981.²⁸

²² For example, J. Carr, for Regional Marine Officer, in letter to R.O. Sullivan, New Zealand Jet Boat Association, 22 August 1978, indicating a suspension of regulation 11 of the Motor Launch Regulations 1962, with conditions including dates, time, section of river, the need for safety and prevention of damage to property and that, 'Any further conditions the relating Catchment Board choose to impose must be complied with', HA file 1/5/3 vol.5.

²³ Minutes, MRUA, 7 October 1980, CA file 1/5/5 67/2/10 pt.1. A 1977 Amendment to the Harbours Act 1950 extended Grant of Control powers to include bodies such as the Board. The advantages to the Ministry of Transport included their lack of staff and financial resources, as well as seeing value in local involvement. (W.G. Thurston, notes of meeting, 14 November 1978, between representatives of the Ministry of Transport and the Board, HA file 1/5/3 vol.6.) The powers of the Board included making bylaws (subject to Ministry of Transport approval) and appointing wardens to educate and assist the enforcement of the bylaws.

²⁴ Jack Register, interview with Jill White, 4 July 2006, transcript p.4, recalled taking part in an early raft race, held by Rover Scouts in 1958 or 1959.

²⁵ *Evening Standard*, 27 November 1974, p.3, under the headline 'River Contest Made Safer' reports a man drowning when 'a raft overturned in narrow rapids' on the practice day before a raft race, and the measures taken to improve safety. The Board in granting permission to have raft races included safety factors.

²⁶ P. Apthorp, Town Clerk, PNCC, letter to M.W. Aspinall, Awapuni Jaycee Inc., 4 November 1975, HA file 1/5/3 vol.2.

²⁷ D.E. Trask, Lance Corporal, 2 Field Squadron, Linton Camp, letter to the Board, 2 March 1976, HA file 1/5/3 vol.2.

²⁸ Minutes, MRUA, 24 February 1981, HA file 49/32/1 vol.1.

The raft races were also a spectator sport. Doug Strachan wrote that 'it was great fun to watch the official raft races, both on the river and at centennial lagoon'. Bystanders would 'chuck tomatoes at the rafters' and on one occasion 'the rafters retaliated by squirting water at the spectators'.²⁹ Local radio stations 2ZA and 2XS, organised annual raft races through much of the 1980s and into the 1990s. On one such occasion the exchanges were not well received. Manawatu Asphalts, taking part in the race, raised ire and an official complaint by tossing tar-based missiles at spectators.³⁰

Potential for a different sort of fun came with the 1950s advent of jet boats. By 1961 a Palmerston North company, Jolly and Mills, had one available to rescue a young canoeist who crashed into 'the remains of an old wooden groyne', clinging to it for four hours while other rescue attempts were made.³¹ In 1963 a newspaper heralded 'Jet Boats Up The Manawatu River For The First Time', when ten jet boats travelled from Foxton to Albert Street in the City, averaging a speed of 50 kmph (30 mph). The reporter on board described being 'intoxicated with the sense of speed, the wind blowing through your hair and plucking at your clothes'. Some of the 'hundreds' who were there to view the spectacle also had the fun of a short 'joy ride'.³²

Jet boats increased in popularity but were intrusive. As early as 1974 the Manawatu Freshwater Anglers Club (henceforth the Anglers) had supported a move to have jet boats registered, expressing concern about their effect on fishing, swimming and picnicking.³³ Wellington Acclimatisation Society (henceforth WAS), in supporting registration, noted the 'irresponsible use of power and jet craft' with potential threats to safety of other river users, disturbance to wildlife, fish and other river fauna, and bank erosion.³⁴ The Royal Forest and Bird Protection Society (henceforth Forest and Bird)

²⁹ Doug Strachan, article submitted to *Manawatu Standard*, copy sent to Jill White, 21 December 2005, p.1.

³⁰ Minutes, MRUA, 21 November 1989, CA file 1/5/5 67/2/10 pt.2.

³¹ *Manawatu Evening Standard*, 9 October 1961, p.8.

³² *Manawatu Evening Standard*, 23 October 1963, p.10.

³³ P.D. McNair, Secretary, the Anglers, letter to the Board Secretary, 9 September 1974, HA file 1/5/3 vol.2. In 1974 several members of the MRUA were expressing support for the registration, and hence ready identification, of jet boats, but efforts at persuading the Government were unsuccessful.

³⁴ R.C. Hannan, Secretary, WAS, letter to the Board Secretary, received 14 October 1974, HA file 1/5/3 vol.2.

were worried about the effect of 'high speed craft' on nesting sites on shingle banks, and whether there would be 'abandonment of nests or their discovery by predators'.³⁵

Tensions heightened in May 1975 when the Central Districts Branch of the New Zealand Jet Boat Association (henceforth CDJBA) applied to the Marine Division for a 'source to the sea' uplifting of the speed restrictions on the Manawatu River and some tributaries, rather than applying for each one-off event to be approved.³⁶ The Acclimatisation Societies were unhappy but a meeting with CDJBA led to an agreement, brought back to the MRUA for consideration.³⁷ Other members however, were opposed to this 'agreement'.³⁸

In the meantime, attitudes hardened. The Board was concerned at breaches of regulations at jet boat regattas at Woodville and Ashhurst.³⁹ Wider hostility surfaced. A newspaper article, headlined 'Mantrap Threats Made to Boaties', claimed 'angry fishermen and shooters' had threatened to stop jet boats with buried stakes and 'barbed wire across rivers'.⁴⁰ Undeterred, the CDJBA applied to local authorities in the Board's district to support their request for a review of the regulations. The CDJBA objective was 'to have jet boating as a sport and means of access up river recognised as a legal operation'.⁴¹ The Board, however, indicated that it did not support further lifting of the restrictions.⁴²

³⁵ M.G. McDonald, Secretary, Forest and Bird, letter to the Board Secretary, received 24 March 1976, HA file 1/5/3 vol.3. The letter contained a reminder that three years earlier the Society had reported on 'the importance of the Manawatu River and its catchment to waterbird life'.

³⁶ R.D. Campbell, for Regional Marine Officer, Marine Division, letter to the Board Secretary, 27 May 1975, HA file 1/5/3 vol.2.

³⁷ R.D. Campbell, for Regional Marine Officer, letter to the Board Secretary, 24 September 1975, regarding a letter of 12 September 1975 received from the New Zealand Jet Boat Association noting the meeting between the Association and the Acclimatisation Societies, with recommendations to go from that meeting to the MRUA. The letter from the Association expressed the hope that this would result in 'lifting of the restrictions on the whole main stream of the Manawatu and with one exception the tributaries as far as they are likely to be navigable by jet boats', HA file 1/5/3 vol.2. The Hawke's Bay Acclimatisation Society was also a member of MRUA.

³⁸ R.W. Bennitt, MRUA Secretary, letter to R.W. Bennitt, Board Secretary, 3 June 1976, regarding the MRUA meeting of 25 May 1976, HA file 1/5/3 vol.3.

³⁹ R.W. Bennitt, letters to Regional Marine Officer and to CDJBA, 14 July 1975, HA file 1/5/3 vol.2.

⁴⁰ O.J. Conway for Director, Marine Division, letter to the Board, 7 August 1975, citing *Evening Standard*, 16 July 1975, p.1.

⁴¹ R.F. O'Sullivan, Secretary, CDJBA, letter to Chairman, Manawatu County Council, 10 February 1976, with similar letter sent to Woodville County Council, HA file 1/5/3 vol.2.

⁴² R.W. Bennitt, letter to County Clerk, Woodville County Council, 2 April 1976, HA file 1/5/3 vol.2.

The conflict led the MRUA to request from the Board 'a formal hearing to receive written submissions on a Recreational Plan for the Manawatu River system'.⁴³ The hearing, on 22 July 1976, gave an opportunity for individual river users outside the MRUA to have a voice, although the majority who spoke belonged to clubs with interests to protect, local authorities or government departments.⁴⁴ One farmer asked that water skiing continue at Aokautere, where he had been skiing for 15 years.⁴⁵ Another supported the lifting of the speed restrictions, at least in the Woodville area, as jet boats would give greater access to stock when the river was in flood.⁴⁶ An urban resident wrote of the 'responsibility your committee has to protect the interests of that vague group of river users such as holiday makers, picnickers and farmers, against those of the organised groups'.⁴⁷

When advised of the 1976 hearing⁴⁸ the City Council initially showed little interest, merely recommending the Reserves Committee to develop a policy 'for the long term use and access to the river where it passes through the city' and submit this to the Board 'in due course'.⁴⁹ On receipt of this the Board suggested that the Council send an observer to the hearing.⁵⁰ In the event, Cr Barter represented the Council.⁵¹ The Council was then more alert to contested use of those stretches of the Manawatu or Pohangina Rivers where it had a special interest, such as the Raumai Bridge and Totara Reserve'.⁵²

⁴³ Minutes, MRUA, 25 May 1976, HA file 1/5/3 vol.3.

⁴⁴ Raymond C.W. Zander, copy to Board of letter to 'all of the individuals or organisations who participated in the (1979) hearing', 12 May 1980, together with a copy of 'Recommendations Relating to 5 Knot Speed Restrictions' and a list of those making a submission. Of the 29 on Zander's list for 1976, the NZ Police, Wildlife Service, the NZ Forest Service, seven local councils and six individuals were represented as well as 13 clubs. HA file 49/32/5.

⁴⁵ W.S. Anderson, submission to 1976 Recreational Plan Hearing, 17 July 1976, HA file 1/5/3 vol.3. This request was not granted.

⁴⁶ J.O. Cumming, submission to 1976 Recreational Plan Hearing, received 20 July 1976, HA file 1/5/3 vol.3. In the 2004 flood jet boats were used to rescue stock. *Dominion Post*, 'The Floods of February: Special Pictorial Liftout', 26 February 2004, p.2.

⁴⁷ J.E. Barnes, 19 July 1976, HA file 1/5/3 vol. 3.

⁴⁸ R.W. Bennitt, Board Secretary, letter to Town Clerk, PNCC, 23 June 1976, CA file 1/5/5 67/2/10 pt.1.

⁴⁹ Minutes, Council Meeting, PNCC, 28 June 1976, CA file 1/5/5 67/2/10 pt.1.

⁵⁰ R.W. Bennitt, Board Secretary, letter to Town Clerk, PNCC, 8 July 1976, CA file 1/5/5 67/2/10 pt.1.

⁵¹ E.S. Charrott, J.G. Law, R.L. Parker, A.R. Tanner, R.C.W. Zander, 'Report of a Special Committee of the Manawatu Catchment Board and Regional Water Board Appointed to Conduct a Public Hearing of Submissions on the Recreational Use of the Manawatu River System held on 22 July 1976', p.4, HA file 1/5/3 vol.3.

⁵² PNCC owned 60 acres in the Pohangina River Valley, including Totara Reserve and the nearby campsite. It also administered the picnic site at Raumai Bridge on the Pohangina River and the Ashhurst Domain, the latter through a joint committee of PNCC and Oroua County Council. Report of Reserves and Recreation Committee, PNCC, 16 August 1976, CA file 1/5/5 67/2/10 pt.1.

The 1976 hearing led to a further area for water skiing, well downstream of the City. The speed restriction was also uplifted 'for an initial trial period of one year' in some parts of the river system. Significantly, the restrictions were maintained on the Manawatu River between Shannon and Ashhurst, therefore keeping the stretch within the city boundaries at 8 kmph.⁵³ The jet boaters had made some gains but were not satisfied.

The one-year trial was delayed because the new schedules could not be gazetted until signs indicating the designated areas were in place. The Board had no resources for this and had to apply to local councils for grants from the Local Scheme of Recreation and Sport Programme and appeal to the organisations in the MRUA for donations.⁵⁴ The delay meant it was 1979 before the trial was complete and the next public hearing was held.⁵⁵ In the meantime CDJBA was impatient. By the end of 1978 conflict within the MRUA rose again with a motion to 'request the Manawatu Catchment Board to seek authority to allow boats registered with the Board and clearly displaying identification to exceed the 8 km/h speed limit between the Shannon Bridge and Ashhurst Bridge'.⁵⁶ The motion was carried, 12 votes to seven.⁵⁷ WAS responded vigorously, expressing

some considerable concern that the River Users Association now see fit to recommend further upliftings before the end of the 12 months trial period ... [This] undermines the spirit of co-operation that has existed ... and makes a mockery of the considerable effort put in ... to reach what was generally regarded as a reasonable compromise within the concept of multiple use of a recreational resource.⁵⁸

⁵³ E.S. Charrott and others, 'Report of Public Hearing, 22 July 1976, Recommendations Summary', n.p., items 6,7. The restriction was lifted on the Manawatu, from the Whirokino Bridge to the Shannon Bridge, most of the section upstream from Ashhurst Bridge to Ngawapurua and on part of the Mangahao River. The uplifting of the restrictions did not apply to the waterfowl or whitebaiting seasons. HA file 1/5/3 vol.3.

⁵⁴ R.W. Bennett, Board Secretary, Memo to Representatives, MRUA, 4 October 1977, indicating 'a lack of financial authority under [the Board's] two controlling Acts'. \$2,200.00 was needed and at that stage only \$535.00 had been received, being \$225.00 from a local council, \$250.00 from the Manawatu Regional Development Council and \$60.00 from the Hawke's Bay Acclimatisation Society. HA file 1/5/3 vol.4.

⁵⁵ *New Zealand Gazette*, 12 October 1978, No.86, p.2775, Notice given of the complete changes. HA file 1/5/3 vol.6.

⁵⁶ D. Linklater, Notice of Motion, undated, but on the MRUA agenda for the meeting of 14 November 1978, HA file 1/5/3 vol.6.

⁵⁷ R.W. Bennett, Secretary MRUA, letter to the Board Secretary, 17 January 1979, HA file 1/5/3 vol.6.

⁵⁸ A.D. Head, letter to Board Secretary, 15 December 1978, HA file 1/5/3 vol.6. In the event the Water Committee of the Board recommended that no regulation should be amended 'until the 12 month term has elapsed'. Extract from Report of Water Committee to Board, 7 February 1979, HA file 1/5/3 vol.6.

The 1979 hearing⁵⁹ again highlighted the conflicting interests of powerboat users and those who perceived their safety and enjoyment of the river as threatened by them. The Anglers presented an alternative concept to that of 'active' and 'passive' river users, the alternative being the 'aggressive' versus the 'non-aggressive' users. The former had the 'capability of overriding other groups' interests' and hence there was a 'need to protect the non-aggressive from the aggressive'. The submission acknowledged a focus on jet boats 'because we regard their activity as being the most detrimental to angling'.⁶⁰ Forest and Bird expressed concern at the intrusion, 'into hitherto quiet areas', of motorboats and jet boats, four-wheel drive vehicles and motorbikes, all of which were 'discordant and potentially destructive'.⁶¹

The CDJBA concentrated on the 'multiple recreational use' concept, claiming that no area should remain exclusive to any one group. In its view there were 'many wild unsubstantiated public statements' made about jet boats.⁶² However, while wanting further liberalisation, in line with actions occurring in other rivers, it accepted that the current restrictions above Jackeytown Road, through the then city area to 'the 53 mile peg at the bottom of Stacey's [sic] Road, should remain'.⁶³ Conversely, the lone commercial interest, Manawatu Gorge Jet Boat Tours, suggested a potential increase in tourism if restrictions were to be lifted 'from the Fitzherbert Bridge up to and including the existing gazetted area'.⁶⁴

⁵⁹ There was confusion over the date of the Hearing. It was scheduled for 22 November but was not held until 29 November.

⁶⁰ P.G. Fenemore, the Anglers, submission to 'Recreational Plan For Use of All Rivers', 8 November 1979, pp.1,2,4, HA file 1/5/4.

⁶¹ Forest and Bird, unsigned submission to 'The Public Hearing of Manawatu Regional Water Board Recreational Plan on Thursday 22 November 1979', HA file 1/5/4.

⁶² CDJBA, unsigned submission to 1979 Recreational Planning Hearing, received 13 November 1979, p.1, HA file 1/5/4.

⁶³ G.A.L. Ireland, CDJBA, oral submission, 'Proceedings of a Public Hearing Conducted by a Committee of the Board on 29 November 1979 to Consider Submissions and Proposals Related to the Recreational Use of Rivers, Streams and Lakes within the Manawatu Catchment Board District 1979', transcript p.17, HA file 1/5/4. Staces Road was incorrectly recorded as Stacey's Road. Jackeytown Road was the name used by some for Tiakitahuna Road.

⁶⁴ C.C. Boyden, Manawatu Gorge Jet Boat Tours, submission to the Board Secretary, 7 November 1979, HA file 1/5/4. This enterprise commenced in November 1978 with jet boat rides through the Gorge on Tuesday and Thursday afternoons and at the weekends. (J. Carr, for Regional Marine Officer, letter to R.W. Bennett, 7 November 1978, HA file 1/5/3 vol.6.) White Horse Tours took over this business, with tours on Saturdays and Sundays from 10am-4pm, and requested representation on the MRUA. (Minutes, MRUA, 5 August 1980, CA file 1/5/5 67/2/10 pt.1.) However, 'lack of patronage' led to it being 'suspended' less than three years later. (Minutes, MRUA, 22 March 1983, CA file 1/5/5 67/2/10 pt.1.)

The Anglers picked up the issue of users such as swimmers and picnickers, who did not belong to clubs.⁶⁵ The Board already had considered this and in its submission presented a survey of fixed recreation sites.⁶⁶ Of the Palmerston North people surveyed, 41% were at sites within or near the City, 5.5% were in the Ashhurst area and 19% near Foxton/Whirokino.⁶⁷ Purposes, in order of popularity over the whole 35 sites, were 'swimming, nice spot, fishing, picnic, outing, boating, sunbathing, closest water, canoeing.'⁶⁸ The importance of fishing to Palmerston North was also noted, the City accounting for 24% of all licences bought (1,127) and '23% of all junior licences' (338) in the WAS district for 1978/1979.⁶⁹

Again, few of the so-called 'passive' individual users of the river made submissions, but local councils spoke on behalf of the swimmer, the picnicker, the riverside walker and the solitary fisherman.⁷⁰ A group of four Palmerston North residents challenged the dominance of club events on the river, requesting the MRUA to 'take into consideration the extensive use made of this waterway by the general public at weekends during the summer months'. They wished to have fewer club events and for Sundays to 'be kept free for public use as this is a public waterway'.⁷¹ The reality was that the only representation of the general public on the MRUA was through their local council if that body chose to belong.⁷²

Controversy arose again with the limited circulation of an 'interim report' of the Hearing Committee in March 1980, recommending that, while many of the speed

⁶⁵ P.G Fenemore, submission, 8 November 1979, p.1, HA file 1/5/4.

⁶⁶ K.J. Currie, Board Water Resources Officer, 'Data Presented to River Recreation Hearing 22 November 1979 from Recreation Survey', HA 1/5/4. The survey involved visits to 35 sites on five rivers in the region, over the summer of 1979. Sites on the Manawatu through the then city stretch of the river were at Awapuni, Albert Street, the Esplanade, Roxburgh Crescent and the Teachers' College. (p.1.) It was acknowledged by Currie, in speaking to the Hearing Committee, that in surveying only fixed sites, river users in boats or other vehicles would be under-represented. Oral submission, 'Proceedings of a Public Hearing, 29 November 1979', transcript, p.31, HA file 1/5/4.

⁶⁷ Currie, p.2.

⁶⁸ Currie, p.3.

⁶⁹ R.C.W. Zander, submission to 1979 Recreational Planning Hearing, November 1979, p.11, HA file 1/5/4.

⁷⁰ For example, Woodville County Council, submission, 17 November 1979, wished to see 'more use ... by picnic parties, fishermen, canoeists, raft races and people on Sunday drives'; Oroua County Council, letter to Board Secretary, 25 October 1979, expressed concern about jet boats on behalf of 'swimmers, parents and fishermen'. HA file 1/5/4.

⁷¹ Andrew Pitcher, letter to MRUA Secretary, 25 July 1980, HA file 49/32/1 vol.1.

⁷² Foxton Borough Council had representation from the first meeting but attended irregularly; Palmerston North City Council sent representatives from time to time in the 1980s and 1990s; Horowhenua and Tararua District Councils sent representatives in the 1990s.

restrictions imposed in 1976 remain, those from Whirokino to Jackeytown Road be uplifted and, more significantly for the City, those from Staces Road to the Ashhurst Bridge.⁷³ The CDJBA considered that the interim report showed a 'very fair approach to the multiple use of our rivers'.⁷⁴ The Anglers however, protested 'in the strongest possible terms', expressing a particular concern about lack of an appeal process.⁷⁵ A further letter requested 'that the new proposals...not be gazetted until the proposals had been adequately publicised, and all interested parties have had an opportunity to lodge objections'.⁷⁶ The Canoe Club was 'most concerned' on hearing of the proposals through the local media, stating, 'Obviously our representative has missed information vital to local canoeing'.⁷⁷

The Board set out on damage control in a confusing situation. Although the Water Committee of the Board had already endorsed the controversial recommendations,⁷⁸ the Anglers were assured on 3 June that the recommendations were not final and 'the question of publicity will be given further consideration by the Board'.⁷⁹ A circular letter from the Board was then sent to all who had made submissions, with a copy of the 'initial recommendations'.⁸⁰ Local councils then responded strongly. PNCC was unequivocal in advising 'of its opposition to the lifting of speed restrictions on the Manawatu River between Staces Road and the Ashhurst Bridge'.⁸¹ Oroua County Council stated that 'the Committee is firmly of the opinion that the 5 knot speed restriction should remain for a distance of 400m north of the Ashhurst Bridge,' because of the popularity of the area near the bridge 'with both swimmers and anglers'.⁸²

It was May 1981 before a report with final recommendations was made to the Water Committee. This time, the Board sent out copies to interested parties, indicating there

⁷³ E.S. Charrott, J.G. Law, W.G. Thurston, 'Recommendations Relating to 5 Knot Speed Restrictions', March 1980, this information being provided to the MRUA, 22 April 1980, but circulated more widely by Raymond Zander. HA file 49/32/5.

⁷⁴ R. King, Secretary, CDJBA, letter to Board Secretary, 15 May 1980, HA file 49/32/5.

⁷⁵ P.G. Fenemore, President, the Anglers, letter to Board Secretary, 1 May 1980, HA file 49/32/5.

⁷⁶ P.G. Fenemore, President, the Anglers, letter to Board, 28 May 1980, HA file 49/32/5. Original emphasis.

⁷⁷ Peter Sutcliffe, Secretary, Canoe Club, letter to Board, 28 May 1980, HA file 49/32/5.

⁷⁸ Extract from Report of Water Committee to Board, 1 April 1980, item 13, HA file 49/32/5.

⁷⁹ R.W. Bennett, letter to P.G. Fenemore, President, the Anglers, 3 June 1980, HA file 49/32/5.

⁸⁰ R.W. Bennett, circular letter to all persons who made submissions, 16 July 1980, HA file 49/32/5. Emphasis added.

⁸¹ P. Apthorp, Town Clerk, PNCC, letter to Board Secretary, 26 August 1980, HA file 49/32/5.

⁸² I.C. Lovell, County Clerk, Oroua County Council, letter to Board Secretary, 15 October 1980, HA file 49/32/5.

was opportunity to make comment 'prior to its adoption by the Board'.⁸³ Although there was some extension to the uplifting of speed restrictions, the stretch of river from Staces Road to the Ashhurst Bridge was not now included. There were also restrictions in the Pohangina River near Ashhurst Domain, Totara Reserve and Raumai Reserve.⁸⁴ The areas most important to PNCC were thus given a high level of protection from speeding boats.⁸⁵

On presenting the Hearing Committee's final report, E. S. Charrott, Chairman, noted 'the proven value' of the MRUA in resolving conflict and the lack of 'hostility between some river user groups which characterised the 1976 hearing'.⁸⁶ There was not whole-hearted agreement that this positive situation was continuing. In August 1980 G.R. Kear of the Manawatu Power Boat Club 'noted that differences of opinion were coming noticeably to the foreground ... and he made a plea that the good co-operation that had existed in the past be retained'.⁸⁷ There was also a comment in a report by the Board's Chief Engineer regarding 'difference of opinion about organisations that should be represented' and a suggestion that 'guidelines' could assist the MRUA to 'retain viability and function more harmoniously'.⁸⁸ This report was not acceptable to the Board and the replacement report had no mention of differences or lack of harmony.⁸⁹ However, 'guidelines' tightening up procedures were instituted, reinforcing the authority of the Board.⁹⁰ The MRUA had already agreed to an extension of the delegated authority 'to include other types of events' not just raft races.⁹¹

⁸³ R.W. Bennett, letter to interested parties, 20 May 1981, with 'Recommendations from the 1979 Hearing Committee', CA file 1/5/5 67/2/10 pt.1.

⁸⁴ E.S. Charrott, J.G. Law, W.G. Thurston, 'Recommendations from the 1979 Hearing Committee', as supplied to interested parties, 20 May 1981, recommendation 4, CA file 1/5/5 67/2/10 pt.1.

⁸⁵ Application could be made on a 'special event permit basis' for a temporary uplifting of the 5 knot restriction in the stretch of river through the city, from Jackeytown Road to Ashhurst Bridge. For the areas specified in the Pohangina River it was recommended that 'only in emergencies and exceptional circumstances' should this happen.

⁸⁶ E.S. Charrott, Chairman's Address, on presenting the report of the 'Recommendations from the 1979 Hearing Committee' to the Board Water Committee, May 1981, p.2, CA file 1/5/5 67/2/10 pt.1.

⁸⁷ Minutes, MRUA, 5 August 1980, CA file 1/5/5 67/2/10 pt.1.

⁸⁸ Geoff Brougham, Board Chief Engineer, 'River Users Association', report to Water Committee, 5 May 1981, HA file 49/32/1 vol.1.

⁸⁹ Geoff Brougham, 'River Users Association', amended report to Water Committee, 4 August 1981, HA file 49/32/1 vol.1. This report also noted that all rivers within the Board's area were now included in the MRUA, not just the Manawatu.

⁹⁰ These included annual nominations of two representatives from each organisation; final decisions regarding groups seeking representation to be made by the Board; and delegation of powers to Chairman, Secretary and Chief Engineer to alter the calendar 'in special circumstances' and to deal with late items. (Brougham, 'River Users Association', report to Water Committee, 4 August 1981, adopted by Board 18 August 1981, HA file 49/32/5.) In 1978 MRUA had become 'recognised as an ad hoc committee of the

Although the Chairman's report to the AGM in both 1983 and 1984 noted a 'spirit of cooperation',⁹² it appears the earlier vitality of the MRUA was missing. At times scheduled meetings were postponed or cancelled due to lack of business.⁹³

Attendance fluctuated.⁹⁴ Hawke's Bay Acclimatisation Society decided to 'attend meetings only if there are items ... which concern Hawke's Bay', suggesting that many meetings dealt with the river only 'between Palmerston North and the sea'.⁹⁵ Small meetings of those most interested were held to deal with disputes in 1984 and 1985, such as that at the Higgins site near Roxburgh Crescent, regarding CDJBA trials with potentially destructive effect on beach metal.⁹⁶

Controversy broke out again in 1986 when J.D. McBride and G.H. Nielsen applied for a permit to run 'Jet Boat Scenic Tours for tourists and visitors' from the Fitzherbert Bridge to the Ashhurst Bridge.⁹⁷ The Acclimatisation Societies' motion that the application be declined was lost.⁹⁸ The Board then called for submissions on the matter. The Canoe Club registered 'a strong objection', stating that the summer programme of instruction for beginners was in the Albert Street to Te Matai stretch of river, and sharp bends and limited visibility would make the uplifting of the speed restriction a 'formula for tragedy'.⁹⁹ WAS stressed the value of the river to anglers, quoting two surveys, one which estimated 20,000 angling visits per year to the Manawatu River, and another at Ashhurst, Raukawa Road and the city area in 1985,

Board' with the Chairman being a Board member. J.G. Law, was elected to the chair at the AGM, November 1978. R.W. Bennitt, Board Secretary, letter to R.W. Bennitt, MRUA Secretary, 14 November 1978, HA file 1/5/3 vol.6.

⁹¹ Minutes, MRUA, 26 May 1981, CA file 1/5/5 67/2/10 pt.1.

⁹² Laurie Speirs, Chairman, MRUA, reports to AGMs of 29 November 1983, 27 November 1984, HA file 49/32/1.

⁹³ R.W. Bennitt, letter to members of MRUA, 13 May 1982, cancelling the meeting of 25 May. A similar letter, dated 17 February 1984, postponed the February 1984 meeting until May 1984. The May meeting was then put off, in a letter of 21 May 1984, until July 1984. CA file 1/5/5 67/2/10 pt.1.

⁹⁴ Minutes, MRUA, 29 November 1983, noted that members, having 'discussed the non-attendance for some time now of a number of member organisations', resolved that the Secretary remind long-term absentee members of the MRUA's desire for 'their future participation ... in the planning of future recreational uses of the rivers in the district', HA file 49/32/1 vol.1.

⁹⁵ H.M. Swinburn, Secretary, Hawke's Bay Acclimatisation Society, letter to the Secretary, MRUA, 16 December 1983, HA file 49/32/1 vol.1.

⁹⁶ Minutes, MRUA, 27 November 1984, CA file 1/5/5 67/2/10 pt.2.

⁹⁷ Agenda, MRUA, 18 August 1986, HA file 49/32/1 vol.2.

⁹⁸ Minutes, MRUA, 19 August 1986, HA file 49/32/1 vol.2.

⁹⁹ Eric Terzaghi, Canoe Club, submission to Board, 'Speed limit on the Manawatu - Jackeytown to Ashhurst', 4 September 1986, HA file 49/32/2.

which estimated angler visits as 1700, 290 and 1300 respectively. There was a reminder of a responsibility to those who pay for a licence to fish.¹⁰⁰

Bird life was not forgotten. The Wildlife Service emphasised the high wildlife classification of the Manawatu River, with shingle banks used by dotterels and black-backed gulls as nesting areas. 'Accelerated disturbance ... can only have an adverse effect on Wildlife' was the concern.¹⁰¹

Peter Apthorp, PNCC Town Clerk, opposed the proposal as a private citizen and regular kayaker between Ashhurst and the Ruahine bend, giving a picture of the informal use of the river, a picture hidden from much of the City.

On a fine summer evening it is not unusual for there to be three or four fishermen at every pool at the foot of every rapid I have occasionally seen windsurfers and small sailing boats [There are] increasing numbers of citizens who use the river, and the walkway for walking, jogging, picnics and all the other passive uses that this presently tranquil stretch of the river attracts.¹⁰²

He raised the lack of representation on the MRUA for these river users, as did the Anglers.¹⁰³

The Board did not find making the jet boat tour decision easy and deferred it, pending 'further information'.¹⁰⁴ Then, in December, it was resolved 'that until correspondence comes to hand ... the matter be left in abeyance'.¹⁰⁵ There it stayed and in July 1987 R J Hartridge sought permission for jet boat tours '100 metres downstream from the Ballance Domain to a point 500 metres above the Ashhurst Domain, seven days a week'.¹⁰⁶ This was within the unrestricted area and was approved.

¹⁰⁰ Ralph Sutton, Secretary, WAS, submission to Board Secretary, 'Application for Tourist Jet Boat Use Manawatu River, Palmerston North - Ashhurst', 8 September 1986, HA file 49/32/2. The first survey had been carried out by the Fisheries Research Division, Ministry of Agriculture and Fisheries, the second by WAS.

¹⁰¹ S. McGill, Wildlife Officer (Game), Wildlife Service, letter to Board Secretary, 25 September 1986, with attachment by Richard Parrish, 'The Wildlife Values and Wildlife Habitats of the Manawatu River and its Tributaries', HA file 49/32/2. The shingle banks effectively ceased below the City reach of the river.

¹⁰² Peter Apthorp, submission to Board, 'Application by Jet Boat Proprietors to Lift Speed Restrictions on Sections of the Manawatu River', 25 August 1986, HA file 49/32/2.

¹⁰³ P. G. Fenemore, Secretary, the Anglers, letter to Board Secretary, 10 October 1986, in opposition to further uplifting the 5 knot speed restriction, HA file 49/32/2.

¹⁰⁴ Minutes, Regional Water Board, 18 November 1986, Board Minute Book, November 1986 - April 1987, HA book 1/1/24.

¹⁰⁵ Minutes, Regional Water Board, 16 December 1986, Board Minute Book, November 1986 - April 1987, HA book 1/1/24.

The CDJBA continued to push the boundaries, with support from the National Secretary, applying for uplifting of the speed restrictions in various parts of the river system, including from Te Matai Road to Ashhurst.¹⁰⁷ Similar opposition to earlier proposals was triggered. The Board, by now the Central Districts Catchment Board, agreed to some of the requests, but deferred 'a decision on the Te Matai Road to the Gorge section'.¹⁰⁸

In the following year, 1989, the Board gave way to the new Manawatu-Wanganui Regional Council, (henceforth the Regional Council) which maintained a relationship with MRUA. In 1990 the CDJBA made one last effort to remove what it saw as 'unnecessary restrictions', including on the Manawatu from Ngawapurua to the sea, but 'excluding Jackeytown Road to Te Matai Road during the period 1 November – 28 February'.¹⁰⁹ The MRUA however, decided that these types of submissions occurred at every meeting and refused to deal with the requests, recommending only very limited uplifting of restrictions.¹¹⁰ Thereafter conflict over speed restrictions appears to have disappeared. Conversations in 2006 with two jet-boat owners indicated that both racing and family outings remain popular and these activities occur within the restrictions imposed using the special permit processes as appropriate.¹¹¹

As recreational use and contest for space on the river increased, so too did use of the riverbank, and this also generated conflict. If clubs dominated the contest for use of the river, the riverbanks became the domain of individual users, even though the development of the bridle path/walkway owes much to the Manawatu Pony Club (henceforth the Pony Club), the Manawatu Walkways Promotion Society (henceforth MWPS) and to a lesser extent the Joggers Club.

A significant milestone in the enjoyment of the river by Palmerston North people was the establishment of a track that opened up the true right riverbank. A proposal in

¹⁰⁶ Minutes, MRUA, 16 July 1987, CA file 1/5/5 67/2/10 pt.2.

¹⁰⁷ Mervyn Cox, National Secretary New Zealand Jet Boat Association, letter to the MRUA Secretary, 15 June 1988, HA file 49/32/4.

¹⁰⁸ T.L. White, Board Director of Administration, letters to the Anglers, WAS and Hawke's Bay Acclimatisation Society, 15 August 1988, HA file 49/32/4.

¹⁰⁹ J.B. Hartridge, CDJBA Rivers Officer, letter to Board Secretary, 14 October 1990, HA file 5/2/1.

¹¹⁰ Minutes, MRUA, 27 November 1990, CA file 1/5/5 67/2/10 pt.2.

¹¹¹ Conversations held by Jill White with one Palmerston North and one Marton member of the CDJBA, April 2006.

1963 to PNCC from the Pony Club requested that a bridle path be developed, 'skirting the Manawatu River from Maxwell's Line to at least the area of the gasworks'.¹¹² The Council granted permission, as long as there was no cost to itself.¹¹³ In the event, the Council gave some practical assistance. In acknowledging this, the Pony Club expressed the hope of completing the track by February 1966, noting that 60 to 80 children would be able to ride in 'comparative safety'.¹¹⁴ However, as early as 1965 it was claimed that 'ever more people seem to be using the walking track and are most appreciative of this facility with the lovely views of the river in natural surroundings'.¹¹⁵ Almost 20 years later the track was still popular. 'People on ponies, walking dogs, jogging or strolling, all use the track with great pleasure.'¹¹⁶ That pleasure was evident when, at a meeting of Graduate Women in 2005, one woman with her face lit up, recalled that one of the nicest days she had spent was 20 years ago, walking in a party of three families the whole length of the riverside walkway.¹¹⁷

The formation and maintenance of the bridle path/walkway involved a considerable amount of hard physical work over several years. In 1964 there was 'almost impenetrable undergrowth' to be hacked through as well as stormwater drains and groyne to be mapped.¹¹⁸ J.O. Brasell and K.M. Seifert, key movers of this project, reported in 1968 on 'working bees' that cleared logs and other flood debris, removed low branches, hacked through creepers and brush, erected fences, used a bulldozer to clear overgrowth and tried to deal with vandalism.¹¹⁹ Even in 1976 when the Joggers Club wanted a jogging track along the walkway, the Director of Reserves reported that 'not all of the track is clearly defined', with plant growth high in some areas and 'continuity broken' by private property. Mud made some paths impassable in wet

¹¹² C.W. Bartlett, President of the Manawatu Pony Club, letter, to Town Clerk, PNCC, filed 6 May 1963, proposed the bridle path on the grounds that grazing and riding areas had been lost with sections being opened up for housing, the loss of grass berms with the 'improving and tidying up of our city' and safety concerns because of increasing road traffic, CA file 1/5/5 83/1/5 pt.1.

¹¹³ Reserves Committee, PNCC, recommendation to Council, 12 March 1964, CA file 1/5/5 83/1/5 pt.1.

¹¹⁴ A.A. Stewart, President, Tiritea Branch of the Manawatu Pony Club, letter to Town Clerk, PNCC, thanking the Council for assistance, 30 November 1965, CA file 1/5/5 83/1/5 pt.1.

¹¹⁵ J.O. Brasell, K.M. Seifert, Manawatu Pony Club Bridle Track Committee, letter to Town Clerk, PNCC, 12 August 1965, CA 1/5/5 83/1/5 pt.1.

¹¹⁶ Manawatu Walkways Promotion Society, *Walks in the Manawatu*, booklet, 1984, CA file A175/433.

¹¹⁷ Graduate Women's Group meeting, Awatapu College, 19 October 2005.

¹¹⁸ K.M. Seifert, text of 2ZA broadcast, 'Manawatu Pony Club Bridle Track', 1964, commentator Colin Follas, CA file 1/5/5 83/1/5 pt.1.

¹¹⁹ J.O. Brasell, K.M. Seifert, Tiritea Branch Manawatu Pony Club, Report to PNCC, 27 June 1968, CA file 1/5/5 83/1/5 pt.1.

weather.¹²⁰ In the 1980s upgrading continued, although upsetting some. A resident described her distress that a track, which 'was narrow and wound pleasantly through the trees', became a '10 foot wide bulldozer track of dusty silt'.¹²¹ The response noted that pea metal was to go down and 'no doubt in its new condition it will please horse riders, joggers, and those who wish to walk side by side'.¹²²

The track was popular with horse riders, joggers, and an increasing number of walkers, including dog owners. National Heart Foundation initiatives gave rise to the MWPS in 1979 and it was active in promoting activities like the 'Walkway Open Day' in June 1980.¹²³ 'Several hundred people' took part.¹²⁴ A letter to the *Evening Standard* in 1979 highlighted the '500 teenagers who ride horses in Palmerston North', but also the dangers from 'pot holes' and swamp-like conditions of the bridle path in winter. Significantly, she also stated that the path had been 'taken over by motor bikes'.¹²⁵

While horse riders and walkers appear to have shared the riverbank amicably, aggressive competition for this public space came from motorcycles. As early as 1968 a section of the track was closed off because of a combination of land developer interests and gates being locked because of motorbikes.¹²⁶ 'Trail Riders Ruin a River Path' headlined a 1975 newspaper article, which claimed 'motorcyclists are zooming along the track with no consideration for pedestrians'. This was seen as part of a progression of annoying and even dangerous uses that had commenced with pushbikes. It also reported that 'signs and barriers to stop them are removed the same day, and thrown into the river'.¹²⁷ The Pony Club voiced its concerns to the Town Clerk about motorcyclists and their 'inconsiderate (and often deliberately pugnacious) behaviour'.¹²⁸

¹²⁰ John Bolton, Director of Reserves, PNCC, Report to Recreation and Reserves Committee, 8 March 1976, CA file 1/5/5 83/1/5 pt.1.

¹²¹ S. Hall, letter to Town Clerk, PNCC, 24 February 1981, CA 1/5/5 83/1/5 pt.1.

¹²² P. Aphorp, Town Clerk, letter to S. Hall, 26 February 1981, CA 1/5/5 83/1/5 pt.1.

¹²³ *Guardian*, 17 June 1980, p.1.

¹²⁴ *Evening Standard*, 23 June 1980, p.1.

¹²⁵ Vivienne Skews, letter to Editor, *Evening Standard*, 21 June 1979, p.2.

¹²⁶ K.M. Seifert, PN Bridletrack Committee, Manawatu Pony Club, submission to 'Manawatu Regional Water Board Recreation Plan for Use of All Rivers', n.d., HA file 1/5/4.

¹²⁷ *Evening Standard*, 8 May 1975, p.1, quoting M. Koehler, Assistant Director of PNCC Parks and Reserves.

¹²⁸ S.G. Parker, Secretary, PN Pony Club, letter to Town Clerk, 12 May 1975, CA file 1/5/5 83/1/5 pt.1.

Trail bike problems in the 1980s led to further newspaper reports of the walkway being 'badly damaged by trail bike riders', with 'ruts almost two thirds of a metre deep'.¹²⁹ There was some discussion about providing other facilities for trail bikes but in 1981 MWPS was informed that there were no 'suitable wilderness areas'.¹³⁰

Concerns about trail bikes, access, increasing use, the need for upgrading of the track and for plantings to beautify sections, led to the formation of the Riverbank Users Subcommittee (RUC) under the auspices of PNCC, in late 1980.¹³¹ This walkway management group included Councillors, PNCC officers, a Board representative, and three indefatigable women, K.M. Seifert, P. Keys and L. Maughan, giving Pony Club, MWPS and landscape architecture perspectives. Trail bike concerns persisted. Signs and barriers were erected, bylaw potential was explored with the Board and PNCC, and Police and Transport Department aid was enlisted.¹³² Some relief did ensue,¹³³ but the metal extraction site at Albert Street remained a problem area, with nearby residents claiming that motorbikes 'physically dominate the area', leading to fears about safety and noise nuisance.¹³⁴

This contest for the riverbank space arose periodically. In 1988 it was claimed that erosion was 'exacerbated in places by trail bikes coming in from Te Matai Road'.¹³⁵ As late as 2003 a newspaper headline claimed, 'Walkers Under Threat', the threat once again being motorbikes.¹³⁶ Motorcycle licence numbers, however, decreased

¹²⁹ *Evening Standard*, 30 September 1980, under the headline 'Trail Bikes Damage Walkway', n.p., CA file 83/1/5.

¹³⁰ Unsigned copy of letter to D.J. Jull, Chairman, MWPS, 25 May 1981, CA file 1/5/5 83/1/5 pt.1. The letter also indicated that a town planning hearing might allow use at the airport, 'on an organised basis'. This did not eventuate.

¹³¹ The first informal meeting, 1 September 1980, was chaired by the MWPS. (K.J. Tremaine, City Planner, memo, 29 September 1980, CA file 83/1/5 pt.1.) The RUC eventually gained the status of a sub-Committee to the Reserves and Recreation Committee of PNCC.

¹³² Minutes, Special RUC meeting, 2 July 1981. This meeting clarified the powers that Council Officers had to prosecute any 'unauthorised vehicle on a reserve' and indicated the support of law enforcement agencies. CA file 1/5/5 83/1/5 pt.1.

¹³³ Minutes, RUC, 25 November 1981, item 3, notes an 'increase in the incidence of trail-bikes since the introduction of daylight saving but that many more bikes were being referred to the police and that the situation was not out of control', CA file 1/5/5 83/1/5 pt.1.

¹³⁴ H.C. Ross, S.M. Ross, letter to Mayor and Councillors, 10 August 1982, CA file 1/5/5 83/1/5 pt.1.

¹³⁵ Minutes, RUC, 2 December 1988, CA file 1/5/5 83/1/5 pt. 3.

¹³⁶ *Evening Standard*, 13 August 2003, p.3, quoting Jenny Edwards, Chair of Walkways Advisory Group on the hazards to walkers posed by motorbikes.

markedly from 1988, when there were 97313 issued, to 48277 in the year ended March 2006,¹³⁷ possibly as a result of cheap car imports.

The contest with bicycles has less potential trauma but is more constant. Cyclists are able to move at speed and relatively quietly. Ironically some improvements to the walkway, such as the sealing of the area bordering the Esplanade, has meant bicycles can advance very quietly upon walkers, increasing the perception of collision potential.¹³⁸ Cycle Aware Palmerston North (CAPN), an organisation to promote safe cycling, states that 'the sealed path ...was developed initially as a cycling facility for commuter cyclists whom the Council wanted to keep out of the Esplanade'.¹³⁹ Co-Secretary, Christine Cheyne, a foundation member of CAPN in 1998, is clear that this sealed track was opened as a cycle path, although now seen as a 'shared use' facility. Cyclists find that 'dogs, pedestrians and rambles' make cycling difficult at times, as do the Council-erected barriers on various parts of the walkway.¹⁴⁰

A periodic threat is from people with predatory behaviours. Doug Strachan describes a man exposing himself on the riverbank and his mother calling in the police.¹⁴¹ Members of the Graduate Women's Group were aware of past episodes of rape and assault.¹⁴²

Attempting to resolve these conflicting interests on the riverbank has been different from those between organisations on the river. Although the MWPS had representation on the MRUA from time to time, the other parties contesting the actual riverbank space were not represented, and indeed did not always have formal structures to which they belonged. Hence there was little opportunity for negotiated decisions. The only recourses were appealing to other users' courtesy, or to enforcement agencies, such as the City Council or the Police, or to depend on the 'safety in numbers' approach. The latter was a point made by the Graduate Women's group, describing

¹³⁷ Statistics New Zealand, email to Jill White, TPTA.S56IZ, Transport, Motor Vehicles Currently Licensed by Type, Annual (Mar), Motor Cycles, 8 May 2006.

¹³⁸ Informal conversations held by Jill White with neighbour and other walkers, March/April 2006.

¹³⁹ Cycle Aware Palmerston North, Submission 704 to Palmerston North Long Term Council Community Plan, 2.4 Leisure, p.3, 2006.

¹⁴⁰ Christine Cheyne, conversation with Jill White, 29 January 2007.

¹⁴¹ Doug Strachan, p.3.

¹⁴² Graduate Women's meeting, 19 October 2005. For example, *Evening Standard*, 2 May 1973, reported a female cyclist being 'indecently assaulted by a young man' while riding through the nearby Esplanade, one evening.

how an increase in people using the walkway has increased comfort in using it.¹⁴³ Many regular walkers use the riverbank walkway because it is one of the few places in the City where dogs can be off the leash. Some exercise their dogs and themselves about the same time of day and may wait for other members of their 'cohort' to arrive and walk together.¹⁴⁴ Notwithstanding the 'threats' real or perceived, and the contests for the riverbank space, the use by walkers has become firmly established and the maintenance of the walkway an expectation on the City Council. Cr Vern Chettleburgh, as former Chair of Parks and Reserves Committee at PNCC, acknowledged the work of Kitty Seiffert and Pauline Keys. 'They made the people more aware of the value of the river.'¹⁴⁵ Merv Hancock sees the walkway as a catalyst for changing perceptions of the river as more people gain contact with the river.¹⁴⁶

With the disappearance of much of the wilderness and the predominance of adult users of the walkway, children have lost what was previously their space for adventurous, albeit at times dangerous, recreation. Jack Register, growing up in the 1940s and 1950s, describes himself as a 'river kid', having spent the first 20 years of his life in the southwest corner of the City, very close to the Manawatu River. He went eeling with his father and swimming with friends.

There were three or four of us who used to swim in it a lot. We were never scared of the river. We could swim well, river swimming where you don't go across the current You would expect to be washed well down, but then you'd go well up, walk well up, to go down again.¹⁴⁷

Jack didn't tell his mother when he was going swimming. Although she made him learn to swim she was anxious about the river, with good reason. Many years earlier, two students from the school she attended were drowned. She would not have been reassured by some of her son's activities in the river.

We used to love it when there was a slight fresh coming because you could whip across and there was a good current and we'd get out and sit on the logs. Now I think about it, it was quite dangerous. But remember, we were 'river kids'. We'd be in and out of that river all the time in the summer'.¹⁴⁸

¹⁴³ Graduate Women's meeting, 19 October 2005.

¹⁴⁴ Conversation between Jill White and neighbour, March 2006.

¹⁴⁵ Vern Chettleburgh, interview with Jill White, 9 November 2006, transcript p.1. Vern Chettleburgh was a City Councillor from 1983-2001. One of his positions was Chair of the Parks and Reserves Committee. He has been a Regional Councillor since 2001.

¹⁴⁶ Merv Hancock, interview 12 September 2006, notes, p2.

¹⁴⁷ Jack Register, transcript p.4.

¹⁴⁸ Jack Register, transcript p.9.

Merv Hancock, however, grew up in Palmerston North on the other side of town in the 1930s and 1940s and swam very regularly in his school swimming baths, first at Terrace End School and then at Palmerston North Boys' High School. The dominant factor was not distance, but that Merv's parents discouraged swimming in the river, because of the danger for children. Notwithstanding the lack of river swimming, having a bicycle meant he 'ranged over the city so knew the river and took a special interest in it'. He frequently cycled through the Esplanade and knew the river there very well. But there were limits. '[We] knew the west end kids were 'river kids' and admired their knowledge. But kids stuck to their suburban areas and knew when they were outside their own territory.'¹⁴⁹

Jack Register had a bicycle and with his friends would go down to the river.

For the first part we'd take our bikes down and love to get into the mud and push them round We used to have the mud fights especially after a flood. We'd all go down there. The Scout pack would go down there. There'd be Terrace End versus Te Awe Awe, throwing mud at each other.¹⁵⁰

The river was part of life for the Scout and Rover groups that Jack belonged to. After Rover meetings at West End Scout hall, the Rovers would go down to Dittmer Drive to the old rubbish tips, set tyres on fire, drive out and kill the rats and then have a 'sausage sizzle'.¹⁵¹

Doug Strachan grew up near the river in the 1970s and early 1980s. 'As children, we would go swimming, fishing or canoeing. Sometimes we carried inner tubes or polystyrene slabs miles up-river, and then floated home.' He also described the riverbank near the Palmerston North Golf Course, as a 'jungle' area used by children in the 1970s and early 1980s. The bridle track was 'just a narrow dirt track through the trees and lupins' and was ideal for 'playing Tarzan'. At that time, the river could be accessed from Roxburgh Crescent and the nearby Higgins yard gave scope for illicit activity on the 'assortment of hoppers, conveyor belts, and gravel sorters'. Doug recounts one episode of being warned off the machines by the police, but sensing they 'had a minor victory in that the police were unaware that one of our mates remained

¹⁴⁹ Merv Hancock, interview notes, p.3.

¹⁵⁰ Jack Register, transcript p.5.

¹⁵¹ Jack Register, transcript p.3.

hidden inside a hopper'.¹⁵² This was a different form of contest for space, between children and adult authority.

Tony Rasmussen also remembers the riverbank as a 'rough and ready' playground in the 1970s. As a five year old on his first day at school he 'followed the other kids to the river', occasioning a search party to look for him. Riding bikes over the gravel heaps became a popular activity. On one occasion he with another 13 year-old took a tent and camped out overnight along the river, towards Te Matai.¹⁵³

As wilderness diminished and opportunity for informal use by children decreased, more formal, organised use of the walkway by schools occurred. The Principal of Palmerston North Girls High School reported an, 'unforgettable experience' for more than 800 girls, in a Marathon Walk.¹⁵⁴ Freyberg High School by 1987 had an annual 'Durathon walk/run'.¹⁵⁵

Children took an interest in wider issues of the river and riverbanks. Room 10 at Ashhurst School wrote a forceful letter to the Board Chairman after a 1980 visit to the river to collect leaves, expressing their disappointment at the barbed wire, the noisy trucks 'cutting up the riverside' and polluting the environment, the 'driftwood, paper and cans piling up everywhere' and the 'opposum (sic) traps everywhere'.¹⁵⁶ Doug Strachan also mentions a petition that he and his friends signed against a plan to build houses at Ruahine Bend. The houses did not go ahead.¹⁵⁷

With the increasing use of river and riverbank and a growing nation-wide appreciation of the recreational value in waterways, the Board and then the Regional Council, as well as PNCC, started to think about plans for recreation. The Board followed up Currie's 1979 work with a further survey of recreational sites along the Manawatu

¹⁵² Doug Strachan, p.1.

¹⁵³ Tony Rasmussen, conversation with Jill White, 18 December 2006.

¹⁵⁴ J.M. Calvert, Principal, Palmerston North Girls' High School, letter to Town Clerk, PNCC, 15 April 1981, CA file 1/5/5 83/1/5 pt.1.

¹⁵⁵ N.L. Smith, Principal, J. Pitt, HOD Physical Education, Freyberg High School, letter to Parks and Reserves Department, PNCC, 9 November 1987, CA file 83/1/5 pt.4.

¹⁵⁶ Room 10 Ashhurst School, letter to the Board Chairman, 18 September 1980, HA file 49/32/2.

¹⁵⁷ Doug Strachan, pp.1,2.

River system, over the summer of 1983/84.¹⁵⁸ Palmerston North people were keen users of the river at Ashhurst Bridge, Raumai and Totara Reserve.¹⁵⁹ These sites ranked highly in numbers of visitors per day, with questionnaires indicating 81% at Raumai Bridge and 56% at Totara Reserve were from Palmerston North.¹⁶⁰

Albert Street was the only site surveyed within the then city boundaries, it being claimed that 'the river features mainly as a scenic asset but is not actively used'.¹⁶¹ This perception echoes a comment made by Boldt in 1979 that the City had 'ignored' the recreational potential of the river 'right on our doorstep'.¹⁶² Although relatively small numbers visited Albert Street, the frequency of visits per year was high, being one of the six most visited revisited sites.¹⁶³

Trevor Hobman enjoyed the river at Albert Street.

I have been a river user for many years and have ... spent lots of happy hours enjoying its varied moods It was always great to be able to bike down to the bottom of Albert Street with the family and plunge into its cool or tepid waters depending on the season and have a refreshing swim after a day of hard work.¹⁶⁴

Albert Street at one time gave vehicular access to the river and was considered as a site for a 'beach' but access for vehicles was blocked. Vern Chettleburgh commented, 'For years the City has had plans for a bit of a beach down at the end of Albert Street It's been open for a while and became a bit of a tip so they blocked it off.'¹⁶⁵

A general lack of vehicular access is troubling for those like Trevor Hobman, for whom the river had been part of life and a place of adventure, with 'crazy raft races' and the thrills of canoeing.

¹⁵⁸ N.R. McLennan, S.A. Reid, *Informal Recreational Use of the Manawatu River and its Tributaries*, Report No. 60, Manawatu Catchment Board, April 1984.

¹⁵⁹ *ibid.*, p.42. These three sites along with Foxton estuary, Whirokino ramp and Horseshoe Bend were the 'most popular surveyed sites'.

¹⁶⁰ *ibid.*, pp. 33, 36.

¹⁶¹ *ibid.*, p.7.

¹⁶² Cr John Boldt, oral submission, 'Proceedings of a Public Hearing, 29 November 1979', transcript p.31, HA file 1/5/4. Boldt then states that because of this potential the Council is 'very pleased with the activities of the Pony Club and the Walkways people'.

¹⁶³ McLennan, Reid, pp.22-24. Albert Street averaged 5.6 people per day, with an average of 30.5 visits per person per year.

¹⁶⁴ Trevor Hobman, letter to Jill White, received 20 September 2005.

¹⁶⁵ Vern Chettleburgh, transcript notes, p.1.

The big concern for me about the river now is the lack of viewing places for us oldies who find it difficult to climb over banks or whatever to get a look at our old river It would be wonderful if we could just park the car at some place and spend a quiet time watching the ever flowing Manawatu River pass before our eyes.¹⁶⁶

Notwithstanding the lack of access for cars, the river has been opened up in some areas. Developments at Dittmer Drive have brought significant change from the time of Jack Register and the Scout troop. A nearby resident, Val Wilkinson, witnessed change from 1994 to 2005. Initially, the spaces were less open, the views restricted by willows and the walkway incomplete. Garden rubbish was still dumped by the riverside and the rats were still present. Cars were driven on the stopbanks, sometimes at dangerous speeds. But by 2000 rockwork reinforcing rather than willows provided flood protection, the walkway extended from Dittmer Drive to Buick Crescent and a fence kept cars off the stopbanks. A vivid picture of the activities that now occur was given.

The stopbank area is used by joggers, walkers, families walking or playing soccer, rugby or other games. People flying kites, people painting, photographers taking photos of birds on the river, people fish, watch birds and of course, people and dogs swim in the river On nice days, people have picnics, read, run/bike up and down the stopbank, and people roll down the stopbank.¹⁶⁷

Gwen Keenan also lives nearby.

It's lovely to watch parents with their children. I especially love to see Dads talking to their little ones as they carry or walk with them. They point out things and stop and look, everything seems not so rushed on the riverbank.¹⁶⁸

She and her husband have enjoyed the interaction with others by the river, watching out for the dogs and owners who regularly exercise on the walkway. 'When they don't come we wonder if they are OK and love to see them back again'. There is also pleasure in 'the changes the seasons bring to the trees', the sunsets and the birds.

Often in the late afternoon large numbers of seagulls catch the air currents over the river and I watch them spiral up high above the river. Sometimes there are two thermal updrafts here and they are both being used for some afternoon fun.¹⁶⁹

Vern Chettleburgh noted the active group of residents in the Buick Crescent, Dittmer Drive stretch of the river and the issue of maintenance of the walkway. 'It's access to the river but also walking along the riverside and seeing the beauty of the river.'¹⁷⁰

¹⁶⁶ Trevor Hobman, letter.

¹⁶⁷ Val Wilkinson, letter to Jill White, 22 September 2005.

¹⁶⁸ Gwen Keenan, letter to Jill White, received 20 September 2005.

¹⁶⁹ Gwen Keenan, letter.

It is clear that considerable and increasing numbers of residents of Palmerston North use the recreational opportunities offered by the river and particularly the riverbank. The river has however been the scene of tragedy and great sadness. G.A. recounted being 'haunted by the Manawatu River' all her life because her father was drowned in the river when she was very young.¹⁷¹ There are conflicting views among citizens about the river and how it should be used. Some negative views emerged during the 2006 Long Term Council Community Plan (LTCCP) consultation exercise. The Council proposed opening up a road through the Esplanade to a viewing platform and boat-launching jetty. Submissions included the following:

The Manawatu is a dangerous river, not suitable for leisure because holes caused by dredging create whirlpools that can suck swimmers down.¹⁷²

I oppose any access to the river where children could be in danger of drowning if not supervised.¹⁷³

The jetty idea is irresponsible – a magnet for children to jump/fall into the very dangerous river.¹⁷⁴

The river is not boatie friendly and encouraging children to launch yachts and canoes here is irresponsible.¹⁷⁵

Others see the Regional Council as having a key role in enhancing access to recreation opportunities on the river. One such call by a keen canoeist highlighted 'conflict between easy recreational access and restraining the river' and that 'people risked their lives climbing the river banks'.¹⁷⁶ Vern Chettleburgh sees the issue of wider access and recreational utilisation of the river as important and notes that changes are occurring at Regional Council to accept that flood protection works and access to the river can both occur, 'at little or minimal extra cost'.¹⁷⁷

The City Council has attempted to organise riverside events such as the very successful Festival of Manawatu in 2003,¹⁷⁸ but to date large-scale events are more associated with the Square or the Esplanade.

¹⁷⁰ Vern Chettleburgh, transcript, p.4.

¹⁷¹ G.A. interview with Jill White, September 2006, notes, p. 1.

¹⁷² Submission 615, LTCCP (PNCC) 2006

¹⁷³ Submission 638, LTCCP (PNCC) 2006

¹⁷⁴ Submission 653, LTCCP (PNCC) 2006

¹⁷⁵ Submission 769, LTCCP (PNCC) 2006

¹⁷⁶ *Evening Standard*, 1 June 2002, p.3.

¹⁷⁷ Vern Chettleburgh, transcript, p.2.

¹⁷⁸ *Evening Standard*, 5 February 2003, p.1.

Conclusion:

The stretch of river through Palmerston North has seen a significant increase in recreational use over the period, with an even greater increase in people using the riverbank. With the increased use came intensified conflict. The conflicts tended to be along lines variously termed active/passive, aggressive/non-aggressive or organised/unorganised. Advances in technology were major elements in determining these divisions, with jet boats on the water and motorbikes on the riverbank featuring as most disruptive.

The Manawatu River Users Association became a key forum for resolving conflict on the river. It provided a formalised structure where user clubs met and negotiated with each other, and where civil society interacted with statutory authorities. Its emergence was timely when the recreational use of waterways was increasing and also gaining recognition from government, both central and local. That the jet boaters had their formal organisation through which to negotiate was an essential part of effective resolution of contests for space and time on the river.

A limitation of the MRUA was in the lack of adequate representation of the general public, the 'unorganised' river users who to a large extent were unrecognised except where they appeared as statistics in fishing licence purchases, or in site surveys by the Board. MRUA also had very little significance in resolving contests for space on the riverbank. On the riverbank, notwithstanding the Pony Club and the MWPS, there was greater use by individuals on both sides of disputes and no formal structure that included the motorcyclists. Management of conflict was dependent on the attempts of enforcement agencies.

It is also significant that the users of jet boats and motorbikes had different approaches to the conflicts in which they were involved. While not all jet boat users belonged to the CDJBA, the local branch was strong and supported by the national organisation in pushing to get rules changed while generally abiding by them. Rules could be, and were, 'nibbled away' at for several years, but within a defined process.

The motorcyclists did not appear to have a body prepared to work within 'the system' to change rules while respecting the concept of rules.

It is possible that the different approaches were related to different stages of life and different status within society of the users of jet boats and motorbikes. The CDJBA belonged to an organisation that was able to contest property rights through established processes, even when impatient with the processes. The motorcyclists had less status within the wider society and were 'cheekier'. They were the equivalent of the 'boy racers' annoying other citizens today.

Throughout this period there have been individuals, both children and adults, who have enjoyed very significant recreational opportunity provided by the river. With the walkway in particular, the number of people who see the river as part of their lives has increased dramatically.

Chapter Four: Bridging the barrier

The separation of employment and residential areas by the Manawatu River has led to high demand for cross river movement.¹

All my life they've been talking about replacing bridges.²

This chapter will explore the intense conflicts of the 1970s and 1990s over proposals for bridges over the Manawatu River at Palmerston North and the contribution these controversies made to the astonishing failure to build a second bridge within the City. Important influences were the development of large educational and scientific institutions on the south bank and the perception of a barrier between the City and those institutions, due more to a certain lack of sense of community than to their separation by the river. The transition of Massey Agricultural College to Massey University, offering a wider range of courses and more liberal disciplines, contributed to the bridge debates. Numbers and nature of students and staff changed, reflecting the diversification and rapid expansion occurring within universities in the 1960s and 1970s. Other relevant changes occurring in New Zealand society included a dramatic increase in ownership of motor vehicles; new planning tools for local authorities; and a rising interest in environmental matters and the conservation of flora, fauna and heritage structures. There was also an increasing demand for community participation in decision-making processes at local body level.

The river was a 'constricting barrier' for the first European settlers who bought land in the Fitzherbert District across the river from Palmerston North. 'This broken and difficult area' was not part of the new settlement of Palmerston North but relied on it to supply many of its needs. Petersen describes the area as 'roughly divided into three sections by two principal streams'.³ The Kahuterawa Stream defined the Linton area, while Fitzherbert East (later Aokautere)⁴ stretched from the Turitea Stream⁵ to the

¹ Works Consultancy Service, 'New Bridge Site Selection: Phase I – Short Listing of Sites', Report to Palmerston North City Council, May 1996, p.9, item 2.4, CA Armitage Papers .

² G.A., interview with Jill White, September 2006, notes, p. 2.

³ G.C. Petersen, *Palmerston North: A Centennial History*, Wellington: A.H. & A.W. Reed, 1973, p.180.

⁴ Aokautere was the chief of Te Motu-o-Poutoa and Te Kuripaka in the 1820s. In 1905 his name was recognised in the new post office at the bottom of the Pahiatua Track. The name Aokautere became used more frequently and in 1968 the school became Aokautere School. Editorial Committee, Fitzherbert East Aokautere School Committee, *Fitzherbert East Aokautere School and District*, Palmerston North: Stylex Print, 1989, p.8.

Manawatu Gorge. Between Linton and Fitzherbert East was Turitea (later often called Fitzherbert). When low, the river could be forded on horseback, but 'the river when swollen by winter floods presented an impassable obstacle entirely isolating the district'.⁶

The first proposal for a bridge was from Fitzroy Street across to Aokautere, but settler demand led the Provincial Council to agree to a bridge at the end of the recently constructed Fitzherbert Street (later Avenue).⁷ This was completed in 1877, but the approaches were lacking until 1878.⁸ Four years after the abolition of provincial government,⁹ conflict arose over payment for repairs and control of the bridge, but in 1890 control was vested in Palmerston North Borough Council.¹⁰ In 1905 a second bridge was proposed at Scandia (now Albert) Street. By now the land on the south side was controlled by Kairanga County Council, a rural body reluctant to invest in a second bridge and supported in this in 1909 by the existence of a new bridge across the Manawatu River near Ashhurst.¹¹ The bridge to Fitzherbert was replaced in 1935, 'due

⁵ The stream, for many years, was incorrectly spelt as 'Tiritea', but 'Turitea' is again accepted as the correct spelling.

⁶ Petersen, *Centennial History*, p.180.

⁷ Peter Croad, Bill Dorreen (collators), *The Fitzherbert Bridges 1877-1987*, Palmerston North: Rotary Club of Terrace End, December 1986, p.4. The reason stated for the change in site was that rural Fitzherbert sections were sold 'on the understanding that a bridge would soon be erected to give access'. There was 'agitation for the province to fulfil its obligations.'

⁸ G.C. Petersen, *The Pioneering Days of Palmerston North*, Levin: Kerslake, Billens & Humphrey, 1952, p.60. Funding for the approaches was not in the original bridge contract.

⁹ The Wellington Provincial Council was the original administering authority, but was abolished in 1876, not long after agreeing that Palmerston North should become a Local Board District. After the abolition of the provincial authority, Manawatu County Council, based in Foxton, administered the Fitzherbert side of the river and also had authority over the local board in Palmerston North until Palmerston North became a borough in July 1877. Ian Matheson, *Council and Community: 125 Years of Local Government in Palmerston North, 1877-2002*, Palmerston North: Palmerston North City Library, 2003, p.16.

¹⁰ Croad, Dorreen, pp. 8-13. Where a river formed a boundary between a borough and a county the borough had control of a bridge over that boundary. However the Borough Council could 'recover from the County Council "a reasonable share of the annual cost of maintaining such bridge"'. Croad and Dorreen state that after the 1880 flood the Manawatu County Council only 'reluctantly' agreed to make a contribution and had a 'feeling of jealousy' that the Palmerston North Borough Council, being a smaller authority, 'had control over' the 'important' Fitzherbert Bridge. In 1887 control passed to the Manawatu Road Board. In 1889 the Fitzherbert Road Board was formed, leading to a further dispute about control of the bridge and the payment of repairs prior to the handover to the new Road Board. A Government appointed commissioner investigated the dispute, allocated costs of the repairs and decided that the Borough Council should control the bridge and that the new Road Board and the Borough Council would pay half each for any future maintenance work. The Fitzherbert Road Board and the Manawatu Road Board were incorporated into the new Kairanga County in 1902. Editorial Committee, *Fitzherbert East Aokautere School and District 1889-1989*, p.13.

¹¹ Croad, Dorreen, pp.16-18.

to its deteriorating condition and narrow carriageway'.¹² Its construction, 'funded mainly by the Government', provided employment in the Depression.¹³ Opening day was 'a fun day with crowds of people'.¹⁴ The bridge became a source of pride to the City, with its imposing arches featuring in photographs and paintings.¹⁵ It also provided the opportunity for acts of daring, as young men in particular scaled the arches.¹⁶

In 1928 Massey Agricultural College opened in the Fitzherbert area. The College was closely linked with the Dairy Research Institute (DRI) and the Department of Scientific and Industrial Research (DSIR).¹⁷ Together they formed a scientific research centre across the road from the main Massey buildings.¹⁸ The 1960s brought substantial change to the nature of Massey. Autonomous university status was gained in 1964,¹⁹ with a much broader range of research, teaching and study. The Fitzherbert educational and scientific research complex became of enormous economic and social significance to Palmerston North. It was outside the city boundaries until 1989, in large part because the agricultural foundation of the College meant that Massey's governing body saw its best interests as being in rural Kairanga rather than urban Palmerston North.

¹² Robert Bradshaw, *Palmerston North & Surrounds: A Century in Photographs*, Palmerston North: Dunmore Printing, 1999, p.52. Matheson, *Council and Community*, p.16, states that flood damage to the bridge between 1880 and 1902 cost the Borough Council 'over 4000' pounds.

¹³ Matheson, *Council and Community*, p.34.

¹⁴ G.A., interview notes, p.2.

¹⁵ For example, P.S. Larcomb, J.P. McDavitt, H. Greenwood, *You Must Come and See Us Too*, Palmerston North: Keeling & Mundy, 1939, p.4; and Basil Register's iconic painting, *Fitzherbert Bridge*.

¹⁶ David Young, Bruce Foster, *Faces of the River: New Zealand's Living Water*, Auckland: TVNZ Publishing, 1986, state that the bridge was 'a favourite attraction for student revelry where the bold would walk across the top of the arches', p.132. Jack Register, interview with Jill White, 4 July 2006, transcript p.6, mentions that although he didn't ever climb the bridge arches, mates of his did.

¹⁷ Ross Galbreath, *DSIR, Making Science Work for New Zealand: Themes from the History of the Department of Scientific and Industrial Research, 1926-1992*, Wellington: Victoria University Press, 1998, pp. 18,23,39. DSIR was established in 1926, DRI in 1927, p.179.

¹⁸ Grasslands Division was formed in 1936, when a major reorganisation of DSIR saw it changed from being a 'co-ordinating body for supporting research in other institutions' to itself engaging in research. (Galbreath, p.67.) By 1972 DSIR employed 252 staff with Grasslands, Plant Physiology and Applied Biochemistry Divisions and regional branches of some other divisions established at Fitzherbert. (J.H. Macky, Commissioner of Works, on behalf of DSIR, 'Possible Future Bridge Locations, Manawatu River – Engineering Feasibility Studies', 20 March 1973 p. 2, in G.W.N. Johansen, *Bridge Crossings Addendum*, report to Palmerston North City Council, 4 July 1973, p.2.) Massey's facilities included centres for plant growth, poultry research, feed, pig research and dairy production. The Shoe and Leather Association also became centred at Fitzherbert.

¹⁹ Massey Agricultural College was established by statute 1926. Land purchased by the Government later that year at Fitzherbert was supplemented by land gifted to the College by the Palmerston North Borough Council. The College was officially opened in 1928. In 1963 the Agricultural College joined with the Victoria University College 'outpost' at Hokowhitu to become Massey University College; in 1964 it became Massey University of Manawatu, then dropped the 'of Manawatu' in 1966.

Massey preferred the small conservative local authority, particularly when it came to planning matters.

Massey wanted the maximum freedom to develop and use their land, and did not want interference particularly with land carrying stock. They did not want close residential development and neighbours with dogs.²⁰

However, most of the staff and an increasing number of students lived in the City and spent money there. A City Council report stated that in the five years to 1970, 'Palmerston North has drawn about \$38 million from Massey University and institutions associated with Massey'. Student numbers had increased, from 959 in 1964 to 2,661 in 1970. Benefits gained by the City included 'much prestige', increased building in the City and on campus, and the enrichment of the 'cultural and sporting life'.²¹ On the one hand, ratepayer support was seen in the 1966 vote for a substantial loan to provide more student accommodation.²² On the other, some thought there was a high and unnecessary cost in providing university education. A local newspaper commented on this:

It is distressing ... to hear unsympathetic and superficial judgements made on tertiary education Unfortunately ... people seriously question the cost of providing university education. It is not difficult to imagine that these are the people on whom a student stunt makes more impact than the discovery of the toxin causing *Dothistroma pini*.²³

Undoubtedly, some student activities were not welcomed. Student appearance was criticised. 'The campus at Massey University is not enhanced (sic) by the scruffy appearance of many of the students', wrote one citizen, for whom long hair on male students was a particular concern.²⁴ Students found themselves in trouble with traffic officers when they attempted to hitch rides to Massey from Fitzherbert Avenue.²⁵ But it was capping week with Proceh and various student 'stunts' that brought students to the forefront of attention and largely dictated relationships with other city residents and

²⁰ Merv Hancock, interview with Jill White, 12 September 2006, transcript, p.2.

²¹ *Manawatu Evening Standard*, 15 September 1970, p.3, quoting from a PNCC report, 'University and City'. \$33 million was from Massey, \$5 million from DSIR and DRI. A more recent PNCC report calculated the 'additional spending impact' of Massey students for 2002 as \$134 million. The total employment impact of Massey was calculated at 3,706, with 2,059 'equivalent full-time staff' and 1,647 'additional employment impact'. Aust, Jacqueline and others, City Future Unit, *Tertiary Education: A View of Palmerston North 2003*, Palmerston North City Council, 2003, pp.68,73.

²² *Manawatu Evening Standard*, 'Palmerston North, Our Place: Our People, 1877-2002', August 2002, p.23.

²³ *Manawatu Evening Standard*, 18 September 1970, editorial, p.2. *Dothistroma pini* is a fungus with a toxin causing needle blight in pine trees, leading to poor growth and possibly death of the tree.

²⁴ *Evening Standard*, 13 June 1972, p.13.

²⁵ *Manawatu Evening Standard*, 15 September 1970, p.3.

with authorities such as the City Council and the Police. Dollery has emphasised the complex nature of these relationships and the changes over the period 1963 to 1973.²⁶ Tacit permission seemed to be given for students during capping celebrations to push the boundaries of behaviour and good taste, but within limits imposed by the authorities and as long as they entertained more than they offended. The collections taken for charity were viewed favourably.²⁷ But the level of tolerance shown by city residents diminished as activities changed and student frustration grew with the limits placed on them. The student population itself was changing as a full university developed in an era of youth 'counter-culture'.

These changes were, in turn, part of a larger shift in societal attitudes from the later 1960s on, and Palmerston North residents' acceptance or rejection of them Letters to the editor by pro- and anti-student correspondents show varying degrees of acceptance of student culture, from ... 'this is now a university city, come what may' to ... 'common decency is fighting for its life'.²⁸

As the student population changed so too did the numbers, composition and attitudes of the university staff. Research and teaching developed across a broader range of disciplines, including the social sciences, humanities and business studies, the latter initially as agri-business. Most staff from the Fitzherbert complex lived in the City and many were actively involved in aspects of city life. Increasing numbers of students were flatting in the City rather than the student hostels. As city residents, all had to cross the Fitzherbert Bridge each day to get to and from work. Articulate, energetic and determined staff and students became very involved in the bridge debates of the 1970s and 1990s.

Despite the downstream development of the Fitzherbert complex and Linton Army Camp, in 1965 it was proposed to construct a new bridge, from 400 metres upstream of the Fitzherbert Bridge to the sparsely populated Aokautere area. This was to be part of the 'eastern distributor' element in a radical new 25-year Transportation Plan for the City. However, residents of Hokowhitu, a generally well-to-do suburb, protested about

²⁶ Helen Dollery, "Fools Abroad": The Town-Gown Relationship Between Massey University Students and Palmerston North at Capping Time, 1963-1973', BA Hons, Research Essay in History, Massey, 2003.

²⁷ For several years, however, the City Council and Massey Students' Association argued over whether the monies collected should go to the controversial 'Community Chest' for distribution to organisations. Massey preferred to choose its own recipients, and was supported in this by residents' letters to the newspapers. Dollery, pp.46,47.

²⁸ Dollery, p.63.

effects on their properties and life-style and lobbied successfully to scuttle the eastern distributor part of the plan and a second bridge with it.²⁹ This campaign brought key people into local government, including Brian Elwood, who became Mayor in 1971.

In the meantime traffic pressure was growing as both motor vehicle use and numbers of university staff and students increased. By 1970 there were 7000 vehicle crossings on the bridge each day.³⁰ On Fitzherbert Avenue flows were 'increasing at 12.65% per annum'.³¹ The two-lane Fitzherbert Bridge and Avenue were seen as inadequate to handle morning and evening peaks and traffic congestion was an increasing concern.³² The Manawatu Road Safety Committee was concerned about the dangers from poor visibility at one end of the bridge and directional arrows at the other end giving 'a false impression of the lie of the road'.³³ In 1970 there was a call for improved traffic flow and for attention to be paid to the dangers at the intersection between state highways 57 and 57A, on the south side of the Bridge.³⁴ A significant part of Aokautere had passed from Kairanga County to the City in 1967 and population increases there would put further pressure on the intersection, the bridge and Fitzherbert Avenue. The Transportation Plan anticipated the need for a highway to eventually carry 40,000 vehicles per day,³⁵ allowing growth to a population of 18,000 across the river, 12,000 being at Massey and the research centres, with 6,000 residing in Aokautere.³⁶

As Fitzherbert Avenue and Bridge were part of the state highway system, the Ministry of Works (MoW)³⁷ and the National Roads Board (NRB) were, respectively, deeply

²⁹ Matheson, *Council and Community*, p.49. Matheson calls the Transportation Plan a 'trail-blazer' document.

³⁰ *Dominion*, 'Palmerston North Centennial Feature', 5 November 1970, p.31.

³¹ Technical Committee, 'River Crossings for Palmerston North, Report on Investigations into Future Bridge Sitings and Related Matters', report to Palmerston North City Council, April 1972, p.2, item 2.5. This reflected a New Zealand wide increase in private motor vehicle use. For the whole country, figures for car registration and licensing for 1960, 1965, 1970 and 1975, were respectively 480,381, 688,534, 861,958 and 1,129,611. 1960 to 1970 therefore showed an increase of 79%, with 1960 to 1975 showing an increase of 135%. *New Zealand Official Year Books* 1964 (p.344), 1967 (p.331), 1972 (p.310), 1977 (p.311).

³² *Manawatu Evening Standard*, 17 September 1970, p.1, features a photograph of 'traffic congestion' at 8.30am, with vehicles in Fitzherbert Avenue 'nose-to-tail and backed up beyond Te Awe Awe Street intersection'. However, the Chief Traffic Officer stated that there were 'many worse intersections ... at peak periods'.

³³ *Manawatu Evening Standard*, 27 November 1969, p.1.

³⁴ *Manawatu Evening Standard*, 15 September 1970, p.3. The 'danger and infuriating traffic delays' at this intersection were highlighted.

³⁵ Technical Committee, 'River Crossings', p.1, item 1.1

³⁶ *ibid.*, p.2, item 2.2.

³⁷ Later, Ministry of Works and Development (MoWD).

involved in planning and paying for any changes to the Avenue and a new bridge. Bitter conflict arose, involving MoW, the City Council and a group called the Citizens Initiative Inc. (henceforth C.I.). The outcome was a long delay in getting a new bridge.

The NRB, through the 9A District Roads Council, had approved a duplication of the Fitzherbert Bridge and the creation of six motor vehicle lanes in Fitzherbert Avenue, thereby implying loss of cycle lanes and the plane trees that lined the Avenue.³⁸

Although the changes to the Avenue and the bridge duplication were part of the Transportation Plan accepted by Council in 1969, 'shocks' emerged in June 1970. The first was the suggestion that 'at least eight years earlier' the MoW had decided on 'a firm site for a second Fitzherbert Bridge'. The second was that the site, 'on the downstream side of the existing structure will carve off a corner of the Esplanade'.³⁹

Confusion, passion and conflict arose between June and September 1970. The City Engineer was first reported as being 'strongly opposed', instead favouring a Cook Street site to 'relieve pressure and congestion'.⁴⁰ The next day he was said to be just unsure which site was the best.⁴¹ Cr Gordon Brown called the issue a 'mini-Manapouri' with the 'same principles of conservation at stake'.⁴² Relations between councillors became strained. Crs Gordon Cruden and Joyce Dunmore were in vigorous opposition over whether Cook Street should be the alternative site.⁴³ Cr Dunmore thought the duplicate bridge would encourage development at Aokautere and that this would 'mean the death of the city'.⁴⁴ She condemned the proposed removal of cycle lanes from Fitzherbert Avenue and also called on 'all conservationists to ... form a society ... to prevent further "authorized vandalism"'.⁴⁵ Cr Cruden, in mid-September, announced that the 'majority of ... councillors are against a second ... bridge route passing through the Esplanade', and that most had 'supported the upstream

³⁸ Matheson, *Council and Community*, p. 66.

³⁹ *Manawatu Evening Standard*, 23 June 1970, p.1. Emphasis added.

⁴⁰ *ibid.*, p.1.

⁴¹ *Manawatu Evening Standard*, June 24 1970, p.3.

⁴² *Manawatu Evening Standard*, 23 June 1970, p.1.

⁴³ *Tribune*, 13 September 1970, p.1.

⁴⁴ *Tribune*, 6 September 1970, p.1. This warning about the negative effect on the city of development at Aokautere was taken from the Reynolds Plan 'which [provided] for revitalisation through redevelopment of Square and older City centre, and [encouraged] higher density living near City centre'. *Tribune*, 19 September 1971, p.1.

⁴⁵ *Tribune*, 20 September 1970, p.1.

siting on both technical and aesthetic grounds'.⁴⁶ A week later the Council and MoW issued a joint statement that no 'firm' decision had been taken, but that the new bridge would be close to the present bridge and would be determined by engineering and economic considerations.⁴⁷

At the last meeting before the 1971 local body elections, the Council reversed support for an upstream site, recommending instead a duplicate bridge, with three inward lanes to Fitzherbert Avenue, built on the downstream side of the present bridge, which would form two outward lanes. Nine perches of 'cultivated garden' in the Esplanade would be sacrificed.⁴⁸ Notwithstanding the presentation of a 100-signature petition against the duplication, the Council sought the agreement of the NRB for this \$450,000 proposal. A motion to delay the decision until after the forthcoming local body election was lost by eight votes to five,⁴⁹ thereby ensuring that the bridge site would become a campaign issue.

The Manawatu Conservation Society protested against the 'proposal to use part of the Esplanade for roading purposes',⁵⁰ while candidates became ranged on both sides of the debate. Mayoral candidate, Brian Elwood, in summing up the campaign, emphasised the bridge issue, stating that 'the new council should review this question at an early stage'.⁵¹ Most significantly, C.I. arose as a pressure group, announcing its formation on the day prior to the election, 'to coordinate the opposition of numerous citizens against the hasty decision of the outgoing City Council'. C.I. endorsed eight candidates, 'who will strive to find an alternative solution'.⁵² However, only four of the eight were elected, all four having been on the previous Council.

Local editorials pointed to change occurring.

The hearty old days when engineers could lightheartedly decide where to put ... bridges and other structures ... have disappeared. Now, people ask rude questions'.⁵³

⁴⁶ *Manawatu Evening Standard*, September 11 1970, p.1.

⁴⁷ *Manawatu Evening Standard*, 18 September 1970, p.3.

⁴⁸ *Evening Standard*, 23 September 1971, p.1. Nine perches is approximately 45 metres.

⁴⁹ *Evening Standard*, 28 September 1971, p.1.

⁵⁰ *Evening Standard*, 29 September 1971, p.1. G.M. Cropp, Secretary, Manawatu Conservation Society indicated that a letter had been sent to the Mayor. She stated, 'Palmerston North has so few geographical features that the preservation of its trees is essential to its aesthetic character'.

⁵¹ *Evening Standard*, 8 October 1971, p. 1.

⁵² *Evening Standard*, 8 October 1971, p.4.

⁵³ *Tribune*, 10 October 1971, p.2.

The Bridge controversy highlights one point: There is not enough community participation at the grass roots level ... The result is, then, that we ... have unpalatable decisions foisted upon us'.⁵⁴

C.I. was not about to accept 'unpalatable' decisions, calling for a review after the election and a new bridge at Botanical Road. The C.I. executive was an 'ad hoc committee of ... six men', four of whom worked 'on the Massey side of the river'. Three were from the university, one being a student; and the other was from DRI.⁵⁵ Their next action was a questionnaire to 'investigate the origins and destinations of traffic movements at rush hours, and the feasibility of other potential river crossings'.⁵⁶ The questionnaire was aimed at staff from the Fitzherbert complex and Linton Army camp. A local newspaper was not slow to respond with a caution that indicated some negative perceptions between 'town' and 'gown':

While it is pleasing to see the education-research complex on the other side of the river taking an active interest in city affairs, the questionnaire ... carries two dangers [one being] ... that this may be interpreted to mean 'university against city'. The very people who complain that the university isn't sufficiently involved in the community, may see the restricted questionnaire in this light. This is not a straw man. There is still far more 'anti-university' feeling than most people would care to admit.⁵⁷

The results of the questionnaire challenged a central feature of the Transportation Plan, which had 'the main arterials leading into the city and feeding traffic into or around the central business district'.⁵⁸ The questionnaire

found that at least a quarter of traffic movements during the evening rush hour originated from South of Massey and the neighbouring research institutions rather than from those institutions themselves. Further, C.I. confirmed that almost all of the evening rush hour traffic did not want to go to the centre of the city ... but were intent on returning home or to other locations.⁵⁹

To follow this up, C.I. produced a map showing that the homes of staff from the Fitzherbert institutions were spread throughout the City.⁶⁰ This, it was claimed, supported their argument that the second bridge should be further downstream 'instead of continuing to

⁵⁴ *Evening Standard*, 8 October 1971, p.2.

⁵⁵ *Evening Standard*, 14 October 1971, p.1.

⁵⁶ Paul Knight, 'Short History of Citizens' Initiative', (single page), 30 August 2003, copy received from private collection of Judith Dell Panny. Paul Knight was a spokesperson for Citizens' Initiative Inc.

⁵⁷ *Evening Standard*, 26 October 1971, p.2.

⁵⁸ *Evening Standard*, 3 December 1971, p.4. This was called the 'box' system of streets.

⁵⁹ Knight, 'Short History'.

⁶⁰ Knight, 'Short History', states that this was 'unlike the situation in earlier times when Massey staff was concentrated in the Hokowhitu area'.

centralize all traffic flows and to degrade the environment on and around Fitzherbert Avenue'.⁶¹

C.I. also organised an opinion poll of 2000 city residents,⁶² with questions that were criticised as 'cleverly [committing] a resident to supporting one point of view'.⁶³ The responses from ratepayers had 75% opposed to the bridge duplication and widening of Fitzherbert Avenue and 22% supportive of the proposed changes. Non-ratepayers had 69% opposing and 17% supportive of the proposals.⁶⁴ Other signs of division in the community included the Ratepayers' Association executive being split over the bridge issue.⁶⁵

Although Brian Elwood, the new Mayor, moved swiftly to announce a review of the previous Council's decision, the new Council was caught between an active, articulate pressure group that enjoyed increasing, although not universal, public support, and a District Roads Council Chairman who stated that 'all grants for the city's transportation plan could be frozen if any alteration was made to the Fitzherbert Avenue Bridge site'.⁶⁶ It was no coincidence that the City Engineer announced that a bridge downstream at Botanical Road would 'cost ratepayers anything between \$312,000 and \$715,000...whereas the proposed bridge...has a full national Roads Board subsidy and will cost ratepayers nothing'.⁶⁷

The new Traffic Committee Chairman, Cr Pat Kelliher, agreed to hold a special public meeting, where C.I. could 'present their submissions', and answer questions by the Traffic Committee.⁶⁸ In the event, there was dispute over the process and the meeting satisfied neither party.⁶⁹ Other concerned citizens were present, with 'only about 10 to

⁶¹ Knight, 'Short History'.

⁶² *Evening Standard*, 18 November 1971, p.1.

⁶³ *Tribune*, 21 November 1971, p.16. Dr R. Cartwright, Principal Research Officer, Market Research Centre, in *Evening Standard*, 22 November 1971, p.3, also stated that the 'questionnaire is intended to promote a sympathetic attitude for the group's case', and, 'They should have been more objective'.

⁶⁴ *Evening Standard*, 14 December 1971, p.1.

⁶⁵ *Evening Standard*, 24 November 1971, p.3.

⁶⁶ *Evening Standard*, 8 November 1971, p.3.

⁶⁷ *Evening Standard*, 1 December 1971, p.3.

⁶⁸ *Evening Standard*, 9 November 1971, p.1. Cr G. Cruden, who chaired the Traffic Committee in the previous Council, did not stand for re-election.

⁶⁹ *Evening Standard*, 3 December 1971, p.1. C.I. had put 35 questions to the committee a fortnight earlier and wanted answers before making submissions at the public meeting. Cr Kelliher wanted to hear the submissions and then give written answers to the questions after the meeting. The intervention of the Mayor gave C.I. further time to bring submissions to the committee.

15' out of about 70, being from C.I.⁷⁰ Speakers from DSIR expressed opposing views, a scientist supporting a bridge at Botanical Road, while the Chair of the DSIR Directors' Committee stated that this 'could have serious effects on the ... research programme'.⁷¹

Despite the efforts of C.I., the Traffic Committee endorsed the previous Council's duplicate bridge decision, although with concessions. Fitzherbert Avenue would 'be retained as an avenue with its present carriageway', both bridges would have cycle tracks, and another crossing would be 'investigated'.⁷² The full Council confirmed these recommendations, but put action on hold for three months to allow a Technical Committee to investigate possible sites for a further crossing.⁷³ This it proved unable to do by April 1972, instead requesting that several sites be protected and that a planning committee be set up to report on 'development strategies' for the City. Only then would it be able to 'suggest road networks and transport solutions'.⁷⁴ The same report, 'in acknowledgement of representations received from citizens', accepted that there should be a limitation on Fitzherbert Avenue of 27,000 vehicles per day. Significantly, it noted that the

first step to implement this objective has already been approved by the Council in resolving to zone the Aokautere land as Rural in the Draft District Scheme.⁷⁵

The Council had decided to close down Aokautere as an urban growth option, meaning anticipated traffic volumes would be lower and the structure of the duplicate bridge could be 'downgraded'.⁷⁶ The report then rejected Council's earlier concessions about trees and cycle tracks in Fitzherbert Avenue.⁷⁷ 'Should the trees remain, the accident rate would be totally unacceptable in terms of injuries caused'.⁷⁸ The resolution eventually adopted by Council focused on forming the planning committee and said

⁷⁰ *Evening Standard*, 4 December 1971, p.2, editorial.

⁷¹ *Evening Standard*, 3 December 1971, p.1.

⁷² *Evening Standard*, 14 December 1971, p.1.

⁷³ *Evening Standard*, 21 December 1971, pp.1,3.

⁷⁴ *Evening Standard*, 21 April 1972, p.1.

⁷⁵ Technical Committee, 'River Crossings', p.1, items 1.1, 2.1.

⁷⁶ *ibid.*, p.2, item 2.6. However, the duplicate would be required when the bridge traffic reached 12,500 vehicles per day, estimated to be in 1975. (Ministry of Works, 'Possible Bridge Sites Across Manawatu River Palmerston North: Preliminary Environmental Impact Report', April 1973, p.1, item 1.1, in G.W.N. Johansen, *Bridge Crossings Addendum*, PNCC, 4 July 1973.)

⁷⁷ *Evening Standard*, 27 April 1972, p.1. The committee reported that 'it is not acceptable that the trees remain in their present line' and that 'the retention of cycle tracks on Fitzherbert Avenue is totally unacceptable'.

⁷⁸ Technical Committee, 'River Crossings', p.2, item 2.7.

nothing about the potentially inflammatory issues of trees and cycle lanes in the Avenue.

In the meantime, Maureen and Charles Bird, husband and wife architect team, had come up with 'the germ of an idea' for an alternative bridge, crossing from between Cook Street and Botanical Road, to Massey land on the other side, and including development of a weir and a lake. They commented that, 'as is happening all over the world, the people of Palmerston North are becoming more concerned with their environment'. The plan was given little publicity until May.⁷⁹ A 150-strong C.I. meeting then 'endorsed' the Bird plan,⁸⁰ and took this resolution to a meeting with the Minister of Works in July 1972. As state highways were involved, the taxpayer would be funding the proposed bridge, and mindful of a forthcoming general election, C.I. believed it could convince the Minister that

the spending of tax payers' money ... would not be welcomed by voters, some of whom were threatening to chain themselves to trees in the Avenue to try to prevent the removal of the trees.⁸¹

While the Minister emphasised that the decision belonged to the City Council, not the MoW or NRB,⁸² another message, from a Ministry of Works official, was that the MoW would not proceed with the duplicate bridge unless the trees in the Avenue were removed.⁸³

The bridge issue, as 'a sort of Magnificent Obsession for the city's population',⁸⁴ showed no sign of abating. It featured on front pages of the local papers, in editorials and in letters presenting a wide range of views. The Council, at its July 1972 meeting, approved an upgrade of Fitzherbert Avenue, involving 'traffic signals ... a median strip, lighting, resiting of trees, and cycle ways'. The close seven to five vote indicated concern that this was *de facto* approval for the bridge duplication. Then a possible breakthrough came, when Crs Forde and Rieger gave notice of a motion, for

⁷⁹ *Evening Standard*, 18 May 1972, pp.1,2.

⁸⁰ *Evening Standard*, 24 May 1972, p.1. The Birds were not C.I. members according to *Evening Standard*, 18 May 1972, p.2.

⁸¹ Knight, 2003. Another resolution stated 'complete disapproval of the council's present plan' regarding Fitzherbert Bridge and Avenue. *Evening Standard*, 24 May 1972, p.1.

⁸² *Evening Standard*, 12 July 1972, pp.1,3.

⁸³ *Guardian*, 19 July 1972, p.1.

⁸⁴ *Evening Standard*, 22 June 1972, p.2, editorial.

consideration at the August Council meeting, to seek a 3:1 subsidy from the NRB for a downstream bridge. The intention was to delay the duplicate bridge until after one was built downstream, not to abandon it.⁸⁵ This would also delay the vexed question of the trees in Fitzherbert Avenue.

The motion was welcomed as 'machinery ... set in motion to assure the City of a second river crossing'.⁸⁶ C.I. announced cooperation for a month 'in the hope that ... a downstream bridge becomes a reality'.⁸⁷ The Mayor announced a new 'two-step plan', involving 'a feasibility study of the Bird plan and of bridges at either Cook Street or Botanical Road', as well as arranging a meeting between the Minister of Works and relevant chairmen of Council committees. This meeting resulted in the key message that NRB funds would not be frozen by 'further delay in proceeding with the ... duplication'. The Council used this as a rationale for putting the duplication proposal to one side, instead deciding to proceed with a downstream bridge and to 'seek the cooperation of the Kairanga County Council and Massey University in determining the approaches to the bridge on the university side'.⁸⁸

This seemed a significant victory for C.I. However, a year later when the Council considered responses from the bodies across the river to the six possible routes proposed, the responses were not encouraging. Kairanga County Council's reply was swift and blunt, stating that 'the Council is not willing to be involved in the cost of any new bridging or in the construction or maintenance of any new roading in the County'.⁸⁹

DSIR and the University saw disruption on an ongoing basis to their research and teaching facilities, with all of the Cook Street or Botanical Road options.

In order that DSIR may carry out its research programme successfully... it is necessary that there be freedom from noise, dust, vibration and vandalism and that there be complete

⁸⁵ *Evening Standard*, 25 July 1972, p.1. The motion included certain conditions, one being 'an undertaking from the Massey University Council and Students' Association ... to reduce the rate of increased traffic ... using the Fitzherbert Bridge, until an additional crossing is constructed'.

⁸⁶ *Evening Standard*, 25 July 1972, p.2.

⁸⁷ *Evening Standard*, 26 July 1972, p.1.

⁸⁸ *Evening Standard*, 29 August 1972, p.1.

⁸⁹ G.A. McPherson, Kairanga County Clerk, letter to The City Engineer, PNCC, 29 November 1972, in Johansen, *Bridge Crossings Addendum*.

freedom of movement of scientists, machinery, animals, etc as desired anywhere on the research area.⁹⁰

DSIR stressed the importance of its campus, the significant developments planned, the uniqueness of the Fitzherbert site and the collaboration therein, and the impracticality of moving activities elsewhere. The only route that 'does not affect DSIR in any way' was Maxwell's Line.⁹¹ This was unacceptable to the MoW, on the grounds that 'as no large scale development on the south side of the Manawatu River has been proposed ... it is considered that a Maxwell's Line Bridge cannot be justified at the present time'.⁹²

Massey University's concerns, as expressed by the Vice-Chancellor, included interference with movement on the site, 'loss of land', effects of vibrations and exhausts from traffic, and 'increased public interference'.

Public interference, whether malicious or otherwise, can destroy the value of [long-term experimental] work with the loss of several years' effort. The problem exists now, and the Cook Street and Botanical Road proposals could only make things worse. Again, the problem of stock-worrying by dogs would be aggravated.⁹³

The Vice-Chancellor stated that the University Council 'would also wish it to be known that its viewpoint on the matters under consideration can be expressed only by the Chancellor ... and the Vice-Chancellor'.⁹⁴ The University authorities were clearly not supportive of those staff promoting C.I.'s solutions.

Although DRI would be affected by only one of the options, its Board resolved, in the interests of the whole area being 'regarded as a single scientific complex', to advise the City Council of its strong objections 'to any river crossing which would bring the State Highway and heavy density traffic through the centre of the scientific complex'. However, the letter also indicated that they were willing to 'assist ... in minimizing peak traffic flow'.⁹⁵

⁹⁰ J. H. Macky, Commissioner of Works, letter to the City Engineer, 20 March 1973, with DSIR comments, 'Possible Future Bridge Locations, Manawatu River – Engineering Feasibility Studies, p.3, in Johansen, *Bridge Crossings Addendum*.

⁹¹ *ibid.*, p.6.

⁹² MoW, 'Possible Bridge Sites: Manawatu River, Preliminary Environmental Impact Report', p.1, item 1.2, in Johansen, *Bridge Crossings Addendum*.

⁹³ A. Stewart, Vice-Chancellor, Massey University, letter to the City Engineer, 20 December 1972, p.2, in Johansen, *Bridge Crossings Addendum*.

⁹⁴ *ibid.*, p.4.

⁹⁵ W.A. McGillivray, Director, DRI, letter to G.W.N. Johansen, City Engineer, 10 January 1973, in Johansen, *Bridge Crossings Addendum*.

The institutions over the river were too important to the City to be ignored. When bringing their reactions to an advisory Environmental sub-Committee set up by Council,⁹⁶ the City Engineer suggested that they 'might also indicate an opinion on ... the total replacement of the present ... bridge with a modern four lane structure'.⁹⁷ However, the hint was ignored, the sub-Committee recommending that Council proceed with a two-lane bridge at Botanical Road. This advice was in turn rejected, the Council voting by eight to five to replace the present bridge.⁹⁸ C.I., opposing this, stated the need as being for a 'second crossing to allow the commuting traffic ... to choose the fastest way to and from Massey University and neighbouring institutions'.⁹⁹ The Mayor, however, declared Council's policy that 'suburban streets [not] be unnecessarily environmentally affected by bridge traffic'.¹⁰⁰ In late 1973 the 9A District Roads Council endorsed 'Fitzherbert Avenue as a four lane arterial route' and recommended to NRB that there be a four-lane bridge 'provided at the Fitzherbert Avenue crossing'.¹⁰¹ The matter seemed settled.

Hills states that safety issues were a factor in the Council deciding on replacement of the bridge.¹⁰² The collapse of the Bulls Bridge in 1973 had led to MoW inspections of other bridges and had confirmed concerns about some piers of the Fitzherbert Bridge. However, the NRB remedy was '\$50,000 in flood damage funds for rock protection work around selected piers', while resolving to 'defer consideration of a new bridge until a proven need is established for replacement on the grounds of either major structural or traffic inadequacies'.¹⁰³ Budgetary concerns were given as a reason for

⁹⁶ The Environmental sub-Committee, although chaired by a councillor, had a majority of members from the community, including from C.I. and the University.

⁹⁷ G.W.N. Johansen, letter to the Chairman, Environmental Committee, City Council, 13 June 1973, p.1, in Johansen, *Bridge Crossings Addendum*.

⁹⁸ *Evening Standard*, 24 July 1973, p.1.

⁹⁹ Paul Knight, letter to Hon H. Watt, Minister of Works, 28 September 1973, CA Citizens' Initiative Papers. Knight was requesting a meeting with the Minister, a meeting arranged for April 1974.

¹⁰⁰ Brian Elwood, Mayor, letter to Paul Knight, 9 August 1973, p.2, CA Citizens' Initiative Papers.

¹⁰¹ G.W.N. Johansen, City Engineer, letter to the Resident Engineer, Ministry of Works and Development, 6 May 1974, quoting 9A District Roads Council resolutions of 2 November 1973, CA Citizens' Initiative Papers.

¹⁰² Richard Hills, researcher, PNCC, 'Cross River Transportation Historical Background Paper,' prepared for the Cross River Transportation Working Party, 30 January 1995, p.9, CA file A175/13. Hills, p.10, also refers to media investigations in 1974, which revealed that Fitzherbert Bridge was among 'at least four' in the Manawatu that needed replacement.

¹⁰³ G.W.N. Johansen, City Engineer, letter to the Chairman, Engineers Committee, PNCC, 11 February 1975.

this decision.¹⁰⁴ The Mayor also noted that the traffic increase was less than had been anticipated and there was a challenge to the rural zoning in Aokautere.¹⁰⁵ What was clear was that no bridge, whether replacement or second crossing, would be built in the foreseeable future, and that there were no winners in the bridge controversy.

Ongoing concerns about safety of the Fitzherbert Bridge crystallized in 1981, with a report by the City Engineer's Department¹⁰⁶ and the Ministry of Works and Development (MoWD).¹⁰⁷ The 'vital importance' of the bridge was stressed in relation to the services carried (including water from the Turitea treatment plant, a sewer main, gas main and telephone cables) and the time needed to shut down services given the nearest crossing at Ashhurst.¹⁰⁸ There would be 'serious access problems' for the students and staff at Massey and the research institutions as well as the 550 residents on the south side of the river.¹⁰⁹ The scour risk was reiterated, with the bridge life stated to be between 5 and 20 years. A collapse would mean 'social catastrophe to Palmerston North and the surrounding community'. The recommendation was that 'planning for ... a replacement should be accorded priority'.¹¹⁰ Although the traffic increase by 1981 was less than had been anticipated, the MoWD summary report was substantially in agreement with the conclusions and recommendations of the City Engineer.

Traffic volumes have increased at a somewhat lesser rate than was evident in the late 1960's. However, given that a new bridge has to be built there appears to be justification for the construction of a 4 lane bridge complete with footpaths, cycleways and service ducts.¹¹¹

However, shortly after the report was released, the MoWD decided that funding constraints would push a new bridge out several years and that a short-term safety

¹⁰⁴ Hills, p.9. *Evening Standard*, 1 November 1974, p.1, also reported the Minister of Works stating that the 'current economic crisis would inevitably resist progress in some fields'.

¹⁰⁵ *Evening Standard*, 12 December 1974, p.1.

¹⁰⁶ A.N. Bickers, 'Implications of Structural Failure' and 'Assessment of Traffic Requirements', May 1981, parts 3,4, *S.H. 57 Fitzherbert Bridge: Palmerston North*.

¹⁰⁷ R.B. Alley, 'Summary of Assessment and Recommendations', June 1981; E.S. Charrott, 'Structural Assessment', April 1981, parts 1,2, *S.H. 57 Fitzherbert Bridge: Palmerston North*.

¹⁰⁸ Bickers, part 3, pp.1-3.

¹⁰⁹ Bickers, part 3, p.7. The weekday vehicle average in September 1980 was more than 12,000. There were also 3,500 cycle and 150 pedestrian crossings per day. The University by this time had 4,680 internal students and 1,210 staff. The Fitzherbert research centres had 560 staff.

¹¹⁰ Bickers, part 3, p.18.

¹¹¹ Alley, p.4.

measure for cyclists would be 'clip-on' cycle lanes.¹¹² The City Council was not pleased at having to pay \$36,900 (25%) towards the cost of the clip-ons.¹¹³ Then MoWD's later decision that a new bridge when built would be two-lane, was seen as 'short-sighted' by the City Engineer.¹¹⁴

The two-lane replacement bridge opened in March 1987, complete with cycle tracks and the potential to be 'upgraded to three lanes'.¹¹⁵ The safety concerns about the bridge structure had been met, but lack of barriers between the cycle and motor vehicle lanes was perceived as dangerous for cyclists, and prompted a student protest at the bridge opening 'gala day'. The students 'came dressed as blood-stained corpses and paraded mock funerals up and down the bridge'. Trevor de Cleene, MP for Palmerston North, supported them, 'judging the best-dressed bike and corpse competition'.¹¹⁶

The Manawatu Catchment Board had ruled that the old arched bridge must be demolished within 18 months of the new one opening, a requirement viewed with dismay by Patrick Hanly, celebrated artist and former resident of the City.¹¹⁷ He called for it to be preserved but it was demolished in mid-1988, after a farewell party organised by the Fitzherbert Lions Club. Fitzherbert Lions, with foresight, had commissioned a painting of the old bridge, by Palmerston North artist, Basil Register.¹¹⁸ This painting had a limited edition of 250 prints, which 'had sold steadily' by the time the bridge was demolished.¹¹⁹

The new two-lane bridge did little to ease traffic congestion, described as 'a massive traffic jam every weekday morning and evening during term time at Massey University'.¹²⁰ As the Council started seriously to consider the three-lane option, with a four-lane Fitzherbert Avenue and a flyover at the Summerhill intersection,¹²¹ another

¹¹² Hills, p.10. The cycle lanes were completed in 1982.

¹¹³ *Evening Standard*, 23 February 1981, p.1.

¹¹⁴ *Evening Standard*, 11 November 1981, p.1.

¹¹⁵ Hills, p.11.

¹¹⁶ *Evening Standard*, 9 March 1987, p.1.

¹¹⁷ *Evening Standard*, 14 January 1988, p.1.

¹¹⁸ *Evening Standard*, 21 May 1987, p.3, stated that the proceeds from the sale were to help build swimming baths for special needs students at Awatapu College. The original was donated to the City, with the City Council as guardians.

¹¹⁹ *Evening Standard*, 23 May 1988, p.1.

¹²⁰ Matheson, *Council and Community*, p.66.

¹²¹ *Evening Standard*, 23 June 1988, p.3.

conflict was imminent. This was over the trees in the Avenue, as increasing its capacity meant removal of the existing trees, which were protected under the District Plan. The Council commenced plantings closer to the footpaths between College and Ferguson Streets in July 1989, but a strong 'Save the Avenue' (henceforth STA) campaign emerged, with both University and other city residents heavily involved. The campaign grew, from letters to the Editor and a petition ignored by the Council in 1988, to the threat of an injunction in 1993, 'if the Council did not undertake to preserve [the trees]'.¹²²

The City Council's response was to apply for consent under the RMA to remove the trees. As Council had to apply to itself, with a publicly notified application, the inevitable challenges meant that an independent commissioner was appointed to hear the application and the submissions for and against tree removal. The application, heard early in 1994, was declined.¹²³ By this time, a flyover at the Summerhill Drive intersection had been constructed, work to further four-lane the road to Massey had begun, and a decision had been made to have four narrow lanes on the bridge rather than the three lanes with tidal flow. The Council, faced with a dilemma over Fitzherbert Avenue, set up a working party involving interested parties including STA and the Girls' High School, 'to look at the alternatives, including the widening of Fitzherbert Avenue'.¹²⁴ The Cross River Transportation Working Party (henceforth CRTWP) commenced meeting in November 1994.

The Council implemented some suggestions of the CRTWP, including more traffic lights, a pedestrian crossing at Girls' High School, and a recommendation that, 'detailed studies for a second bridge start forthwith providing opportunity from the various stakeholder groups'.¹²⁵ A public relations company supported this, stating that 'Public perception of the need for a new bridge is very strong' and adding:

The Council's commitment to four-laning the Avenue and the bridge ... is not perceived to be enough unless a new bridge is built, while some residents believe it would not be necessary to four-lane Fitzherbert Avenue (and cut down 18 trees) if a new bridge was built promptly.¹²⁶

¹²² Hills, pp.11-13.

¹²³ Hills, p.13.

¹²⁴ Hills, p.15.

¹²⁵ Allan McKerchar, and others, 'Second Bridge Site Selection Process', report to Chair, Goals and Strategy Committee, PNCC, 4 September 1995, p.1, item 2, CA Armitage Papers.

¹²⁶ Outlook Communications Ltd., 'Public Relations and Communications Proposal for the Palmerston North City Council New Bridge Project', September 1995, p.4, CA Armitage Papers.

The Council then set up a New Bridge Site Selection Working Party (henceforth NBSSWP) with eight community representatives, including the University, the business community and STA, together with four from City Council and one from the Regional Council. Divisions were apparent early with a 'fiery meeting about public input into the make-up of the ... working party'. The disagreement was about selection of members and whether a Councillor should chair the working party.¹²⁷ Divisions persisted after the working party was established, as indicated in notes to STA members, with phrases such as 'meetings are probably going to be more battlegroundish', and 'a quick dispatch from the front'.¹²⁸ The fundamental difference was whether priority should be given to meeting present traffic flow needs or the long-term growth needs of the City. The City Council were looking to Linton as a possible long-term growth area and so favoured a site such as Maxwell's Line, some distance downstream. The present traffic needs were the focus of Massey University's senior management, so Cook Street was their favoured site.

The PNCC fixation with **future** land-use needs ignores the **present** land-use needs from which traffic generation has already occurred If Linton becomes a satellite township then this may require a further bridge downstream On existing land use needs and traffic requirements **there must be a 'near' bridge.**¹²⁹

STA also saw a 'near' option as meaning the Avenue need not be widened. The Council, however, still wished to four-lane the Avenue and the bridge, seeing this as the way to ease the frustrating cross-river traffic congestion and to open up Aokautere for residential development.¹³⁰ However, there had also been informal discussion with the University management about the Cook Street option.

¹²⁷ *Evening Standard*, 10 November 1995, p.2. Eventually four members of the public were elected at the meeting to join with three councillors to decide on the eight members of the public for the working party. Council had earlier determined that a councillor should chair the working party.

¹²⁸ R.G. Armitage, File Notes, 30 May 1996, 27 June 1996, CA Armitage Papers.

¹²⁹ J.E. Hogan, Assistant to Vice-Chancellor, Planning and Development, memo to Mr. Tither, 4 January, 1996, p.3, CA Armitage Papers. Original emphasis.

¹³⁰ Although Aokautere had been zoned rural in 1972 there were objections by a group of landowners. The matter came before the Town and Country Planning Appeal Board in 1976. The Board granted the City Council's request not to deal with Aokautere until a much wider study of City growth options had been considered. P. Apthorp and others, *Manawatu Urban Growth Study*, report to PNCC and the Minister of Works and Development, 1978, section 1.3, then recommended, 'That Aokautere is not a suitable location for urban development'. However, by 1986 views had changed and P.B. Wheeler, K.J. Tremaine, *Palmerston North Long Term Growth Options* report to PNCC, stated that 'most problems [were] manageable' (p.81) and that Aokautere 'should be adopted as part of this strategy' (p.82). Linton was also seen in this report as a viable long-term option.

Cook Street is a viable crossing point, but would bring traffic into the perimeters of the Fitzherbert Science Centre. To resolve this Ken Tremaine and I devised a South Esplanade Drive, replacing the old SH 57... and diverting traffic southwards towards Linton with exit points for the respective Fitzherbert Science Centre institutions.¹³¹

The NBSSWP was tasked with recommending a short-list of preferred sites for further investigation and public comment. Four sites were accepted by Council; Albert and Cook Streets, Maxwell's Line and Shirriff's Road. A challenge to the interpretation of data compiled by consultants to the Council threatened to hold up progress,¹³² but eventually extensive public and stakeholder meetings commenced.¹³³

Linton Army Camp made clear their view about any downstream bridge that supported Linton as a future growth area.

Should a new bridge site be selected close to Linton Military camp there must be a high chance it will speed urbanisation of the area. Urbanisation in close proximity to the camp will give rise to conflicting interests and needs between the general public and day-to-day military life. In the worst case scenario ... Army authorities will obviously need to review the long-term viability of Linton Army Camp.¹³⁴

Cook Street and the possible effect on the Esplanade became a focus of considerable debate, with headlines such as, 'Forest and Bird opposes bridge near Esplanade'¹³⁵ and 'Public "against Cook St site"'.¹³⁶ Finally, the Council decided on the Maxwell's Line site, to be constructed 2011-2012.¹³⁷

In the meantime an independent Commissioner was conducting a hearing into a Council application for a Change to the District Plan to allow the removal of the last

¹³¹ Hogan, p.2. (Original emphasis.) Ken Tremaine was variously City Planner, Director of Planning and Development, City Development Manager, from 1976-1994. Matheson, *Council and Community*, p.107.

¹³² The challenge was spearheaded by STA. This concern, over the conclusions Works Consultancy had come to, forms a thread running through the Armitage Papers.

¹³³ Andrew Boyle, PNCC, memos to NBSSWP, 7 August 1996 and 19 August 1996, lists six public meetings planned in different parts of the city, particularly those areas closer to the river; and 12 stakeholder meetings, including the Army, Massey University, the Science Centres, Save the Avenue, environmental groups, Manawatu Prison, the emergency services, West End School/Riverdale Kindergarten.

¹³⁴ Stewart Couchman, Community Services Officer for Linton Military Community Board, letter to Allan McKerchar, Infrastructural Planner, PNCC, 27 February 1996, CA Armitage Papers. Two of the 'conflicting interests and needs' related to the Army's possible desire for land on which to expand and concern that close neighbours would object to noise from the Camp.

¹³⁵ *Guardian*, 14 August 1996, p.1. A group called 'Not the Esplanade' also attacked the suggestion of a Cook Street Site, p.3.

¹³⁶ *Evening Standard*, 30 July, 1996, p.2.

¹³⁷ Matheson, *Council and Community*, p.67. Maxwell's Line option has not been taken any further. Currently an option upstream of the present bridge is favoured.

protected trees in the Avenue. In late 1996 consent was granted for the Plan Change and in January 1997 dramatic protest actions, over several days, accompanied the felling of the trees. The protests started on New Year's Eve with STA performing 'street drama' depicting a Grim Reaper and Executioner.¹³⁸ On 6 January the first two attempts to fell the trees were postponed, because of a 300-strong crowd of protesters, some of whom were 'perched in the branches and huddled around the trunks'.¹³⁹ Nine trees were felled later that afternoon in what was called a 'strategically devious' action by the Council.¹⁴⁰ Ugly scenes developed as

the trees ... were felled in the full blaze of national television coverage with protesters being forcibly removed from treetops as a huge crowd gathered to demonstrate.¹⁴¹

Protesters maintained a vigil in and around the remaining nine trees. However, these were felled on 8 January following Occupational Safety and Health (OSH) lifting a prohibition put in place because of safety concerns, and the police negotiating with those in trees to come down.¹⁴² One of the vigorous protestors was Mark Bell-Booth of STA, who became Mayor of Palmerston North in 2001, as had Brian Elwood 30 years earlier.

The Avenue and Bridge were four-laned and traffic flow enhanced both to the Fitzherbert complex and the areas opening up for subdivision in Aokautere. Merv Hancock described an unanticipated outcome of the growth in the Fitzherbert complex and Aokautere. When he was growing up the river was on the edge of the City.

Now, the University's increase in size and the ongoing suburban development over the river, are giving rise to a growing perception it is at the centre of the City.¹⁴³

Conclusion

Conflict has been a dominant feature of every attempt to enhance Palmerston North crossings of the Manawatu River. This chapter has dealt particularly with the turbulence of the 1970s and 1990s, which reflected wider social and political developments occurring through this time. Along with so many other urban authorities, the City Council was engaged in planning for growth and for efficient

¹³⁸ *Evening Standard*, 2 January 1997, p.2.

¹³⁹ *Evening Standard*, 6 January 1997, p.1.

¹⁴⁰ *Evening Standard*, 7 January 1997, p.2, editorial.

¹⁴¹ Matheson, *Council and Community*, p.67.

¹⁴² *Evening Standard*, 8 January 1997, p.1.

¹⁴³ Merv Hancock, interview notes, p.2.

traffic flows, but had a number of issues to reconcile. There was increasing public awareness and concern about the environment and conservation, which came into conflict with the increasing use of motor vehicles. At the same time, the Council was anxious not to lose the economic and social benefits of the educational, research and military institutions on the south side of the river.

The establishment of Massey Agricultural College, then University, and the Fitzherbert science institutions brought considerable change and much benefit to Palmerston North. In turn, the institutions needed the services the City had to offer, including ease and safety in river crossings for the staff and students. The 1969 Transportation Plan attempted to deal with the increases in both private motor vehicles and numbers of staff and students at the institutions on the south bank. As the road carrying traffic from Fitzherbert to the centre of the City was a State Highway, any decisions affecting this route involved both the Ministry of Works and the National Roads Board, leading at times to significant tension, most particularly with the protracted duplication debate in the 1970s and then over the width of the new bridge in the 1990s.

Changes were occurring at Massey through the 1960s and 1970s, with increasing numbers and a broadening base of disciplines and staff members, well able to articulate concerns growing about the environment and the conservation of natural and heritage resources. There was also an increasing demand for greater community involvement in decision-making. Massey had the people with the skills, energy and contacts, both collegial and wider City, to pull together groups to pursue campaigns in which they believed, and 'Massey people' played significant roles in Citizens' Initiative and Save the Avenue. Both groups understood and worked 'within the system' and to a limited extent within Council structures, although Save the Avenue also used civil disobedience as a last resort.

For Council the issue was complicated by the growth options then envisaged for the City. For Aokautere to be available for urban development, improved flow over the bridge was essential, and a downstream bridge was also needed if Linton was to be developed in the longer term. Aokautere was eventually opened up for residential subdivision, but the Army presence was too important to the City for the Linton option to be pursued.

Four decades of conflicts, delays, community involvement, changes of direction by Council and paralysis of action for years at a time culminated in a Fitzherbert Bridge that is safe and meeting the current traffic flow needs of the educational and research centres on the south side of the river and the growing residential community at Aokautere. There is as yet no second bridge.

Chapter Five: Resources of the River: exploitation and conservation

River aggregate extraction by the ... five major private companies generally occurs from the middle reaches of the Manawatu River near Palmerston North, and river erosion problems are of most concern near Palmerston North because of possible flood-control scheme damage, increased river control expenditure, and environmental degradation.¹

The difficulty of year-round land disposal of wastewater in the Manawatu means that the risk of failure is high and the cost high On the other hand, continued river discharge, despite its many advantages, including a lower cost ... is offensive to a significant number in the community.²

This chapter focuses on the contribution the Manawatu River has made to the economic life of the City. Just as the chapters on flooding, recreation, and bridges have revealed the interplay of conflicting interests, so too there have been conflicting views and changing values regarding economic uses of the river. The chapter will briefly cover the history of resource use of the river before 1941, including by early Maori. European settlement brought demands for aggregate for construction of roads and buildings. The Manawatu River has been a rich source of this material, but its extraction has affected both the river flow and the surrounding environment, leading to conflicts involving local authorities and the extraction businesses. European settlement also led to the river being used for disposal of wastewater, a practice offensive to communities downstream of the City, including several marae and the town of Foxton. Both gravel extraction and sewage discharge issues were magnified by the post-World War II expansion of the City, but amid growing concerns about the environment. There are other informal ways the river and riverbank have been used economically. These include the provision of food, firewood, seeds, and, for a few, makeshift homes by the river. The limited tourism initiatives have been discussed briefly in Chapter Three.

Although there were tracks over the Ranges and through the heavy Manawatu bush, the Manawatu River was the major transport route for Rangitaane, with hapu living along the river, both east and west of the Ranges. A handful of early European travellers explored the Manawatu River with Maori, in canoes. These included

¹ G.G. Brougham, N.R. McLennan, *Manawatu River Aggregate Resource Management*, Manawatu Catchment Board Report, No. 63, April 1985, p.24.

² Palmerston North City Council, *WasteWater 2006: Entry for the New Zealand Post Management Excellence Awards 2001, 2001*, p.5.

the trader Jack Duff, who, with Maori guides, is thought to be the first Pakeha to have travelled through the Manawatu Gorge up to Ngawapurua and hence 'probably the first Pakeha seen in the various Rangitaane settlements up the river to that point'.³ The travel could be hard work. Buick describes Duff as having 'paddled and poled up the river' until reaching the Manawatu Gorge, 'through which the party pulled the canoe'.⁴ As indicated in Chapter One, the earliest European settlers also used canoes to transport themselves and their belongings to Palmerston North, but this form of transport was short-lived. Subsequently the river has been little used for transport other than in a recreational context.

Many sites along the river are of enduring significance to Rangitaane. Much of Hokowhitu in Palmerston North remained in Rangitaane ownership until 1892-93 and major street names still reflect this relationship. Hokowhitu (later Centennial) lagoon 'was famous for its supply of eels'.⁵ Te Motu-A-Poutoa, now the site of Anzac Park, was a fortified settlement overlooking the river and occupied until about 1820. The leader of those who lived at Te Motu-A-Poutoa in the late 18th and early 19th centuries was the chief Te Aokautere, after whom the present suburb on the south bank of the river is named. Te Aokautere was also the leader of the fortified settlement of Kuripaka further downstream.⁶ The Lower Manawatu River was a 'giant pantry' and Rangitaane had to fight to keep it.⁷

Awapuni and Awatapu lagoons were sites of old river meanderings, the former another rich source of eels, and Awatapu, as the name suggests, a 'tapu' or sacred place. Awapuni was also the name of a village near the lagoon, with its meetinghouse, 'Kikiwhenua', built in 1883 but burned down in 1925.⁸ Both lagoons have been drained, but both, in times of heavy rain, show signs of their origin as part of the Manawatu River. In earlier times flooding of the river replenished the swamps with eels.⁹

³ J.M. McEwen, *Rangitane: A Tribal History*, Auckland: Heinemann Reed, 1986, p.140.

⁴ T.L. Buick, *Old Manawatu or The Wild Days of the West*, Palmerston North: Buick and Young, 1903, p.120.

⁵ Ian Matheson, *Notes on the Maori History of Palmerston North*, Palmerston North: Palmerston North City Corporation, 4th ed., February 1986, p.5.

⁶ Matheson, *Maori History*, p.6.

⁷ Warren Warbrick, Te Manawa Museum, conversation with Jill White, 15 December 2006.

⁸ Matheson, *Maori History*, p.6.

⁹ Warren Warbrick, conversation with Jill White.

Food from the river, particularly eels, but also other species such as kokopu, inanga, fresh water flatfish, mussels and crayfish, were a vital part of the economy of Rangitaane in the Palmerston North district.¹⁰

Kairanga, which means 'an accumulation of food', is now the site of Linton Army Camp.

This locality was regarded by the Rangitane people as a favoured place for gathering food from forest, stream and river, and was also renowned as a place for catching birds and rats.¹¹

The birds used for food included the weka, kereru, kaka and tui and swamp birds such as pukeko and parara (wild duck).¹² Petersen noted that 'the dense bush gave shelter to myriads of [birds] which frequented the river margins where the moa had once stalked'.¹³ Moa footprints were discovered at the end of Fitzroy Street after floods in 1912. Moa bones have also been found at a Pike's Road farm, near Rangiotu.¹⁴

Raukawa supplied hinau berries,¹⁵ while the south bank provided berries from a 'huge karaka grove',¹⁶ the remnants of which persist behind the Fitzherbert Science Centres. Fern roots also supplemented the diet, but kumara gardens were 'limited' in the Palmerston North area.¹⁷

Food collection has remained one of the uses of the river, although the nature and extent of the resource has changed with European settlement. Doug Strachan recalls people shooting rabbits along the river,¹⁸ and trout fishing is popular.¹⁹ For Jack Register the river has been a very special 'food basket', with its fish, mushrooms to be

¹⁰ Michael Taylor, Annetta Sutton, *Rangitaane Heritage Sites in Palmerston North City*, Palmerston North: Palmerston North City Council, December 1999, p.19.

¹¹ Matheson, *Maori History*, p.7.

¹² Taylor, Sutton, p.19 quoting V.A. Christensen, *A Brief History of Early Tiritia Written to Commemorate the Golden Jubilee of the Tiritia School, 1895-1945*, Palmerston North: Simon Printing, 1945, p.5.

¹³ Taylor, Sutton, p.18 quoting Petersen, *Centennial History*, p.25.

¹⁴ Tony Rasmussen, Te Manawa Museum, conversation with Jill White, 18 December 2006. Te Manawa has a sample of the Pike's Road bones including leg bones and gizzard, and the photograph of the footprints, showing also Henry Cole (blacksmith and motor mechanic from Terrace End) and another person. Casts were made of the footprints.

¹⁵ Taylor, Sutton, p.20 quoting W. Moffatt, 'A Paper on the Rangitane Tribe', Palmerston North Polynesian Discussion Group, c. 1960, n.p.

¹⁶ Warren Warbrick, conversation with Jill White.

¹⁷ Taylor, Sutton, pp.20,21.

¹⁸ Doug Strachan, article submitted to *Manawatu Standard*, copy to Jill White, December 2005, p.1.

¹⁹ Trout fishing in the Manawatu River is discussed in Chapter Three.

gathered, and mint and fennel growing along the banks. He has caught both trout and flounder.

There are not many cities where you can go down and catch a fish for brekkie, get a few mushrooms on the other side of the river and go home and have a nice brekkie of trout and mushrooms.²⁰

Food was not the only resource found by Jack Register. In 1969 walking along by the river he saw 'a triangular piece of stone sticking out among other stones'. It was 'a beautiful Maori adze' made of one of the varieties of greywacke found in the Manawatu. A Wellington expert assessed it as a 'very early moa hunter adze', from around 1350AD, providing further evidence of moa as a food source along the Manawatu River. He also recalls, as a young house painter, seeing adzes that farmers had dug up when ploughing.²¹

From early in the 20th century the Lower Manawatu River became a source of the aggregate necessary to ensure roads in the developing European settlements did not continue to become quagmires in the wet periods.²² Later the Manawatu River aggregate also became recognised as 'excellent ... for concrete manufacture'.²³ Gravel extraction businesses developed along the Palmerston North stretch of the river, in part because the resource runs out above Opiki, when the slowing river has dropped most of its heavier load, but more particularly because of the cost of transporting gravel. Transport costs for this heavy, low-value material mean that is financially advantageous to extract aggregate close to where it is to be used, 'otherwise building and roading costs would become exorbitant'.²⁴

²⁰ Jack Register, interview with Jill White, 4 July 2006, transcript, p.5.

²¹ Jack Register, transcript, p.2. Ian Matheson has also recorded details of adzes ploughed up by farmers, in 'Draft Catalogue of Maori Artefacts of the Manawatu District', facsimile to Craig Connelly, 31 May 2001, CA Research File A175/8.

²² In 1877 when Palmerston North became a borough, there were 28 miles of surveyed streets, six of which were formed and metalled, 'the other 22 being narrow muddy tracks through the forest'. By 1896 however, 'all the streets in the borough had been formed and metalled'. (Matheson, *Council and Community*, p.17.) The Manawatu River became the main source of gravel for roads in the Aokautere area only from the 1920s, when the motor lorry became available. (Editorial Committee, Fitzherbert East Aokautere School Committee, *Fitzherbert East Aokautere School and District 1889-1989*, Palmerston North: Stylex print, 1989, p.13.)

²³ M. P. Brougham, *A Preliminary Guideline for the Implementation of a Shingle Management Plan for the Lower Manawatu River*, Manawatu Catchment Board, November 1979, p.1.

²⁴ Brougham, *Preliminary Guideline*, p.4

The extraction of gravel may proceed at a different rate from the natural movement of gravel in a river, resulting in either degradation (lowering) or aggradation (raising) of the riverbed. Either circumstance can affect the potential of a river to flood, through direct effect on the riverbed by increasing or decreasing carrying capacity, or through erosion of riverbanks and undermining of protection works. From 1979 three reports have emerged around these issues in relation to the Manawatu River near Palmerston North City. M. P. Brougham's 1979 report was 'to try and establish a definite plan for the management of shingle extraction in the Lower Manawatu River'.²⁵ This report provided background material for a report by G.G. Brougham and N.R. McLennan in 1985, 'the first assessment of Manawatu River aggregate extraction undertaken for the Board'.²⁶ Both reports concentrated on extraction operations close to Palmerston North. In May 2006 Opus International Consultants carried out a study, for Horizons Regional Council, of 'the gravel resource in the Lower Manawatu River', using data from 1991 to 2005.²⁷

There was 'minor extraction ... from three main Lower Manawatu river sites', up to 1940, and then a gradual increase to 1960.²⁸ With greater building activity in the 1960s and into the 1970s, gravel extraction increased significantly and by 1979 there were 23 licensed extractors taking between 300,000 and 350,000 cubic metres of gravel from sites over 50 km of river downstream from the Gorge.²⁹ The six main extractors worked in the city stretch of only 13 km, taking out approximately 200,000 cubic metres, or about two-thirds of the total amount.³⁰ In 1985 the extractions of the five major private operators continued to be 'generally ... from the middle reaches ... near Palmerston North'.³¹

The Soil Conservation and Rivers Control Act 1941 gave the MCB limited powers to regulate gravel extraction. Under bylaws annual licence fees were payable, as were the fees for inspections by the Board officers. Quarterly returns of amounts extracted were

²⁵ *ibid.*, p.1.

²⁶ Brougham, McLennan, p.1. Four earlier assessments had been carried out on other rivers in the Board's area. Brougham, McLennan, p.1, state that M.P. Brougham's report was for a Bachelor of Regional Planning.

²⁷ M.G. Webby, D. Payne, M.D. Harkness, 'Lower Manawatu River Gravel Resource Study', Volume 1, Opus International Consultants, Horizons Regional Council Client Report, May 2006, p.1.

²⁸ Brougham, McLennan, p.13.

²⁹ Brougham, *Preliminary Guideline*, pp.1,16.

³⁰ *ibid.*, pp.3,16.

³¹ Brougham, McLennan, p.24.

also required. Royalties were payable if the Board owned the site, but this affected one company only, and even then, royalties were not required if the aggregate was to be used for PNCC work.³² Compliance, at least to 1979, was variable with regard to the regularity of the quarterly returns. One extractor challenged the Board as to whether it could legally charge the inspection and licence fees.³³ The Board, in its role as a Regional Water Board, also had powers under the Water and Soil Conservation Act 1967 to control discharge of the washwater used in cleaning the aggregate. Standards were set to limit the amount of suspended solids in washwater, but were often not adhered to and infrequently enforced.

The gravel extraction plants also had to meet PNCC requirements, under the Town and Country Planning Act 1977, for the land-based parts of their operations. There was objection in 1979 to the proposal in the PNCC District Scheme Review to zone the extraction plants along the river as Recreation 2, rather than Industrial, recreation zoning giving the Council the ability to place conditions on operations that were considered noisy, ugly and potentially dangerous. Occasional complaints led to some remedies. However, while the extraction plants were unattractive, access to them did allow some extra public access to the river.³⁴

In 1979 and 1984 the MCB carried out recreational use surveys.³⁵ The end of Albert Street was a major gravel extraction site as well as a recreational one. Although the setting was 'besmirched by gravel and concrete heaps, rubbish and car bodies',³⁶ and ratings were poor for 'peaceful and scenic' qualities, the focus of suggested improvements was on items like picnic tables, toilets and rubbish bins, with comments also on the need for 'a separate area for motorcycles, levelling of the site, and a clean-up of dumped rubbish'.³⁷ The operations of the extraction plant were not mentioned. However, in the 1989 Review of the Recreation Plan, the Board stated in its draft Plan that, 'gravel extraction continues to concern several recreational and environmental

³² Brougham, *Preliminary Guideline*, p.8.

³³ *ibid.*, p.14.

³⁴ *ibid.*, p.25.

³⁵ See Chapter Three.

³⁶ N.R. McLennan, S.A. Reid, *Informal Recreational Use of the Manawatu River and its Tributaries*, Report No. 60, Manawatu Catchment Board, April 1984, p.22.

³⁷ McLennan, Reid, p.24.

groups'. The limits to the Board's powers were also noted.³⁸ The draft Plan proposed that,

Gravel extraction should be prohibited from the Ashhurst Bridge, Raumai and Albert Street recreational sites during the summer months (i.e. 1 November – 28 February) after the 1989/90 year.³⁹

Not surprisingly gravel extractors objected, as did Pohangina County Council. The final Plan reduced the prohibition period to 20 December – 1 February, with 'dispensations or variations' to be considered by the Board.⁴⁰

The industry mirrored national and local conditions with an increase in both extraction and end uses when the economy was flourishing, and a falling off when the economy weakened. Mines Division figures show approximately 480,000 cubic metres, 400,000 cubic metres and 240,000 cubic metres of Manawatu aggregate were extracted for the years 1972, 1976 and 1981, respectively. The Board figures also show an overall drop-off from the late 1970s to 1982-83.⁴¹ Figures for the construction of 'dwelling units' for Palmerston North rose from 334 in 1960-61 to a plateau around 383 units from 1966-67 to 1971-72, increased dramatically to a peak of 679 in 1973-74, then fell to 260 in 1977-78 and 302 in 1978-79.⁴² Commercial building also reflected this trend.⁴³ Brougham and McLennan considered that 'A general decline in aggregate production ... can probably be attributed to a deterioration in New Zealand's economy'.⁴⁴

There was no doubting the economic benefit to Palmerston North and surrounding communities of a source of aggregate so close and so satisfactory for building construction and road works. The Board, however, with its river management function,

³⁸ Central Districts Catchment Board, 'Draft Manawatu Recreational River Management Plan', 1989, p.3, HA file 49/32/6.

³⁹ *ibid.*, p.6.

⁴⁰ N.R. McLennan, letter to M. J. Sargent, Pohangina County Council, 28 September 1989, HA file 49/32/6.

⁴¹ Brougham, McLennan, p.23, Fig.2, 'Manawatu Aggregate End-uses'; Fig.3, 'MCB Extraction Returns'.

⁴² Brougham, *Preliminary Guideline*, Table 4, 'Dwelling Units Constructed in Palmerston North, 1960-1980', between pages 55 and 56. New business premises from 1961-62 to 1972-73 fluctuated between 13 and 32 per annum with a sudden rise to 44 and 46 in 1973-74 and 1974-75 respectively, then drooping off to 32 in 1975-76.

⁴³ Brougham, *Preliminary Guideline*, Table 6, '“Commercial” Development in Palmerston North: 1960-1980', between pages 56 and 57.

⁴⁴ Brougham, McLennan, p.20.

was faced with a dilemma as concern grew that the increased gravel extraction was responsible for changes such as ‘bed degradation, undermining of river protection works, erosion of river banks, discolouration of water’.⁴⁵ If the amount extracted and the processes used were seriously harming the river environment, damaging scheme works and increasing costs for river control, some action would be needed. Concerns were greatest for the river near Palmerston North.⁴⁶

River behaviour is a dynamic and complex interaction of gradient, water discharge, sediment movement, sediment size and the way energy is dissipated as the river flows to the sea. Sediment is categorised as either ‘suspended’ or ‘bedload’. Floods carry not only large amounts of the smaller suspended particles of silts and clays, but also the larger bedload particles of sands, gravels and boulders, including in large floods ‘the layer of larger stones that “protect” underlying bed material’.⁴⁷ Maintaining river stability or ‘equilibrium’ means attaining a balance between bedload movement into and out of a particular stretch of river. The amount of aggregate extracted in relation to natural replenishment becomes a significant factor in this and in the consequent effects on scheme works.

River shingle extraction and the effects of bedload sediment movement on river stability have concerned the [Board] for several years. In 1977 the Board undertook river channel efficiency surveys in the vicinity of Palmerston North city to determine the effect of extraction on the river’s discharge capacity, and ... the surveys indicated that the flood capacity had actually been increased by extraction because of river bed lowering. Despite this beneficial channel degradation effect, regular surveys were continued to ... ensure aggregate extraction did not jeopardise scheme works.⁴⁸

The Board powers to regulate the extraction of gravel through bylaws under the 1941 Act were ‘only in relation to river control purposes’.⁴⁹ Brougham and McLennan in 1985 felt justified in recommending a ‘substantial reduction’ in the amount of aggregate taken from the Lower Manawatu, from the estimated current rate of 150,000-200,000 cubic metres per year, to 40,000 cubic metres per year.⁵⁰

Natural river meander movement, catchment development, confined flood flows, river diversions and river aggregate extraction operations can all promote channel changes; and accordingly it is sometimes difficult to isolate extraction-induced erosion from other causes of channel change In general ... it appears reasonable to attribute most Lower

⁴⁵ Brougham, *Preliminary Guideline*, p.3.

⁴⁶ Brougham, McLennan, p.24.

⁴⁷ *ibid.*, p.18.

⁴⁸ Brougham, McLennan, p.5.

⁴⁹ Brougham, *Preliminary Guideline*, p.36.

⁵⁰ Brougham, McLennan, pp.83,87.

Manawatu channel changes prior to 1960 to early [Board] flood control scheme works and associated European catchment development; and most of the channel changes since 1960 to river aggregate extraction operations and reduced sediment supply.⁵¹

The RMA allowed a new regulatory regime to be established through the development of Regional Plans and the resource consent process. The *Regional Plan for Beds of Rivers and Lakes*, approved in December 2001, recognised both the social and economic benefits of the gravel resource and the need to manage its extraction in such a way as to reduce the flood threat from aggrading rivers and the erosion potential and damage to flood protection works from degrading rivers.⁵² The *Regional Plan* spelt out the conditions to be met to gain resource consent for what was a ‘restricted discretionary activity’.⁵³

The *Regional Plan* summed up the situation and pointed the way ahead to achieve the desired policy outcome of ‘sustainable management’ of an important resource, while also exercising the Council’s function of management of the Manawatu River.

The Manawatu River has been in a largely degraded (down cutting) state since 1880 when records began. Accelerated bed degradation since the 1960s correlates with the increased extraction from the river in response to growth and expansion of Palmerston North city. To reduce the rate of channel degradation the Regional Council has imposed restrictions on the volumes of gravel available for extraction from the Manawatu River downstream from the Manawatu Gorge. These volumes will progressively decrease over time.⁵⁴

The corollary to this was that gravel extraction would be encouraged from parts of the river that were aggrading. Monitoring would enable levels of extraction to be determined for different reaches or sub-reaches of the river. The 2006 Opus study of the gravel resource in the Lower Manawatu River analysed the ‘river cross-section information’ from 1991 to 2005 and calculated ‘sediment budgets’ for sub-reaches of the river, within the reach 98km to 60km,⁵⁵ being Ashhurst to below Jackeytown Road. Findings were reported to the Regional Council in August 2006.

Between Ashhurst and Karere Road the river is in equilibrium in terms of the amount of gravel transported in and out of the reach, and any extraction will therefore result in lowering of the bed and ultimately will have an adverse effect on the integrity of the erosion protection works. Between Karere Road and Jackeytown Road there is no clear indication

⁵¹ *ibid.*, p.39.

⁵² Horizons Regional Council, *Regional Plan for Beds of Rivers and Lakes and Associated Activities*, 20 December 2001.

⁵³ *ibid.*, p.144. The restrictions were limited in that they related only to the avoidance, reduction or mitigation of ‘adverse environmental effects that the proposed activity could potentially cause’.

⁵⁴ *ibid.*, p.31.

⁵⁵ Webby, Payne, Harkness, p.i.

whether the river is aggrading or degrading. The lower reach, that is from Jackeytown Road to the limit of the gravel phase ... [shows] ... gravel is accumulating and needs to be extracted in order to maintain the flood carrying capacity.⁵⁶

Uncompromising action was proposed in the light of the Opus study. For the following year, gravel extraction from Ashhurst to Jackeytown Road, the 'degradation and transitional sub-reaches', was to be only in 'one-off' amounts, and consents then not renewed. The Operations Group of the Regional Council proposed to then manage extraction by holding a long-term consent itself for the whole Ashhurst to Opiki reach, the intention being

to ensure that 'one-off' extractions can be made for river management purposes in the two upper sub-reaches after flood events and that extraction in the aggrading lower reach can be seriously promoted.⁵⁷

Affected gravel extractors were informed of the proposals in July 2006.⁵⁸ The Regional Council was told that, '[the gravel extractors] would have the opportunity to make submissions to Council ... [but] ... there was very little opportunity for movement around the Council's position on this'.⁵⁹ The consent holders had been warned five years earlier of a shortage of supply, nevertheless 'feelings ran high over the report's findings'. The Regional Council in response offered assistance to those who were prepared to extract gravel from 'plentiful areas where access is difficult'.⁶⁰

Although the Board in 1979 was apparently little troubled by discharge to the river of gravel operation washwater that did not meet the required standard, it was stated by M. P. Brougham that other 'contaminated discharges' were viewed with more concern.⁶¹ These discharges were treated sewage and trade waste from the PNCC treatment plant, treated sewage from Linton Camp and waste products from Manawatu Co-op Dairy Co., the freezing works at Longburn and NZ Pharmaceuticals.

⁵⁶ River and Drainage Schemes, Engineering Report to River and Drainage Committee, 9 August 2006, p.11, para.14, Report No. 06-143, Manawatu-Wanganui Regional Council, Agenda and Reports, June-Sept 2006, HA book 5/2/77.

⁵⁷ *ibid.*, p.11, para.15.

⁵⁸ *ibid.*, p.11, para.16.

⁵⁹ Minutes, River and Drainage Committee, 9 August 2006, Report No. 06-143, p.4, in Agenda for Meeting of River and Drainage Committee, 11 October 2006, Manawatu-Wanganui Regional Council, Agendas and Reports, Oct – Dec 2006, HA book 5/2/78.

⁶⁰ www.horizons.govt.nz/default.asp?data_article=1631, 'Gravel Shortage Affects Consent Holders', 1 August 2006.

⁶¹ Brougham, *Preliminary Guideline*, p.31.

For over 100 years Palmerston North has used the Manawatu River to receive the City's sewage or wastewater. In the first decade of European settlement earth closets were features of private dwellings, with cesspits for hotels and boarding houses. From 1879, 10 acres of 'sanitary reserve' or 'nuisance pit' near the end of Fitzherbert Avenue provided a site for disposing of the recently instituted nightsoil collection and household refuse.⁶² Ten years later the borough had a water supply from Turitea and began to plan seriously for a 'water carriage sewerage scheme'.⁶³

The first earthenware sewer pipes were laid in 1890 and sewage flowed by gravity to the outfall sewer, which ran from the Square along Fitzherbert Avenue and through the Esplanade to discharge into the Manawatu River about 800 metres downstream from the Fitzherbert Bridge. Letters of complaint on behalf of their downstream communities quickly arrived from the Mayor of Foxton and the Chairman of Horowhenua County, but to little avail.⁶⁴ It was the Department of Public Health, formed in response to a bubonic plague scare in 1900, that insisted on treatment before discharge to the river.⁶⁵ By 1905 sewage was being treated in a system of 'septic tanks and filter beds, situated on the bank of the river near Maxwell's Line'.⁶⁶ The effluent was originally discharged directly into the Manawatu River, but later diverted into the Mangaone Stream and thence to the Manawatu River.⁶⁷

At approximately 16 metres wide, 22 metres long and 3.7 metres deep, the septic tanks 'were the most impressive feature of this scheme and were described as being the largest and most efficient in New Zealand'.⁶⁸ However, in 1930, when city status was attained, the City Engineer pointed out inadequacies in the treatment system. The tanks were too small, and

⁶² I. R. Matheson, 'Sewage Disposal in Palmerston North: A Brief History', pp.2,3, CA research file: sewage disposal A175/30/1. By 1892 the Council had taken over the night soil collection function and closed the 'sanitary reserve', instead using an area near Graham Place for stables and to bury the nightsoil. In 1919 the nightsoil was discharged into an outfall sewer rather than being buried, pp.5-9. It was the 1950s before this collection finally ceased.

⁶³ Bethany Mays, Alan Fielding, *A History of Wastewater Treatment in Palmerston North*, Palmerston North: Palmerston North City Council, May 2006, p.9.

⁶⁴ Mays, Fielding, p.11.

⁶⁵ Mays, Fielding, pp.14,15, also note the 'more perilous' risks of diseases such as cholera, typhoid and dysentery.

⁶⁶ Matheson, 'Sewage Disposal', p.7.

⁶⁷ *Manawatu Evening Standard*, 21 June 1968, p.8.

⁶⁸ Matheson, 'Sewage Disposal', pp.7,8.

unfortunately during wet weather a substantial quantity of subsoil and rain water from off the buildings in the Business area of the town is brought down to the Septic tanks, with the result that the sewage is practically passing straight through the tanks and causing a clogging up of the filter beds.⁶⁹

Although modifications were made to increase the holding capacity by converting the filter beds to septic tanks,⁷⁰ spending on the treatment plant continued to come second to the expansion of the sewer network to meet the needs of the growing City.⁷¹ In 1949 the City Engineer commented on the effects of this, quoting from an English source that he viewed as applicable to Palmerston North.

Housing schemes and industrial developments cannot proceed without drainage facilities so sewerage schemes have been pushed ahead This is causing a great deal of concern, for sewers have been constructed to get the sewage and industrial wastes to the sewage disposal works, but adequate purification plant to deal with these liquors is still lacking.⁷²

The 1950s brought both completion of the reticulation system and increasing concern about pollution of the Manawatu River, including from the Pollution Advisory Council, established under the Water Pollution Act 1953.⁷³ The City's sewage treatment plant was designed for a much smaller population than the 35,632 people at the 1956 census and was considered seriously overloaded and obsolete. The City Engineer, however, was mindful of the 'backlog of capital works' carried out over the previous ten years and the need to plan the capital expenditure over the next ten years. He instigated a major investigation in 1958 to determine the level of pollution in the Manawatu River, and hence 'when the expensive new treatment plant might have to be commenced'.⁷⁴

There were 11 survey sites between Fitzherbert Bridge and the Foxton Beach Motor Camp swimming area. The sites were either a little downstream of the effluent outfalls at Palmerston North, Linton Camp and Longburn, or at accessible points spaced out

⁶⁹ John R. Hughes, letter to the Town Clerk, Palmerston North, 5 September 1930, Report Book 1929-30, page 251, CA file A175/30.

⁷⁰ *Manawatu Evening Standard*, 21 June 1968, p.8.

⁷¹ The Depression and World War II placed restrictions on spending on infrastructure. Matheson, *Council and Community*, p.110, states that City Engineer, John Hughes, 'had to cope with postponement and cost-cutting of proposed projects as ratepayers, unwilling to pay more, put pressure on Council and as materials became difficult to obtain'. Matheson, p.46, also links deferral of treatment plant and water supply improvements in the 1920s and 1930s to the intense controversy over whether the water supply should be artesian or gravitational.

⁷² J.R. Hughes, report to Town Clerk, Palmerston North, 28 October 1949, CA file A175/30, p.1.

⁷³ *Manawatu Evening Standard*, 21 June 1968, p.8. In 1957 the Pollution Advisory Council published 'a report on pollution in the lower Manawatu and Oroua rivers, and ... listed 30 separate sources of pollution, including some which discharged directly into the Manawatu River.

⁷⁴ G.F. Hogg, 'Preliminary Report on Sewage Disposal with Particular Reference to Pollution of the Manawatu River', Palmerston North City Council, October 1958, p.1, CA file A175/30, p.1.

along the river. Various tests were taken on the samples, including *E. coli* bacterial counts, dissolved oxygen and Biochemical Oxygen Demand (B.O.D.). In interpreting the results, emphasis was put on the 'self-purification or recovery in the river'. For the *E. coli* this was stated to be 'almost complete between Longburn and Whirokino Bridge'. The allowable level for swimming had been 'reached at Shannon Bridge, 30 miles downstream from the Palmerston North outfall and 18 miles above the bathing area in the river estuary at Foxton'.⁷⁵ The other results were broadly in line with the *E. coli* recovery times.

The effluent from the Palmerston North City flowing into the Manawatu River does not interfere with the purposes for which the river is used. It would appear that for a period of at least five years this condition is likely to continue and the natural resources of the river will be able to deal with the effluent from the septic tanks.⁷⁶

The Chief Engineer concluded that 'the self-purification capacity of the river is very high',⁷⁷ but also recommended certain works should be carried out, including regular testing. Although the results seem very unsatisfactory by 2006 standards, he had succeeded in gaining the time he needed. It was 1965 before the new treatment plant project commenced.⁷⁸

The city population as at the 1961 census had risen to 41,014 and in 1962 it was recommended that a new plant should 'serve an initial population of 75,000 people ... [and] ... that provision should be made for the additions of secondary treatment units to serve a population of 100,000 or more'.⁷⁹ This was at a time of prosperity and expectations of continuing rapid growth of Palmerston North. In 1968 the new primary treatment plant was opened with the Minister of Health stressing the importance of planning modern treatment plants to meet the needs of 'today's crowded living' and to avoid 'intolerable' pollution.⁸⁰ The Council was proud of the technical and aesthetic features of the new plant.

Based on the latest American designs, the plant is New Zealand's most modern, with an aesthetic appeal which should soften the usual attitudes to such places As a primary treatment plant it is as good as any in the country.⁸¹

⁷⁵ Hogg, p.3.

⁷⁶ Hogg, p.1.

⁷⁷ Hogg, p.5.

⁷⁸ Mays, Fielding, p.29.

⁷⁹ Matheson, 'Sewage Disposal', p.13.

⁸⁰ *Manawatu Evening Standard*, 22 June 1968, p.1.

⁸¹ *Manawatu Evening Standard*, 21 June 1968, p.7.

The effluent now met the standards for discharge to the river required by the Pollution Advisory Council.⁸² In 1985 the next step was taken with the development of aerated lagoons, the secondary treatment recommended earlier. However, the problems were not over. The City's sewerage system from time to time became overloaded with infiltration of stormwater, resulting in 'raw sewage being forced through manhole covers into city streets'.⁸³ The City Council's proposal to construct an emergency bypass from the treatment plant intake direct to the river was not welcomed by the Board or by WAS. However, given a lack of alternatives, there was little choice in emergencies until a further upgrade of the treatment plant and replacement of old pipes could occur.

Just as the introduction of regional councils in 1989 and the enactment of the RMA in 1991 led to a more stringent management of the gravel resource, so too water quality in the Manawatu came under further scrutiny, resulting in the 1995 *Manawatu Catchment Water Quality Regional Plan*. Notwithstanding the secondary treatment introduced in 1985, the effluent would not meet all the contact recreation standards required below the city outfall in the 15-year time frame of the Plan. The Regional Council suggested land-based disposal or a sewage pipeline to Opiki. The City Council was concerned about the expense and 'claimed "non-point" run-off from farms was also a major pollution factor'.⁸⁴

The two councils were at odds, particularly over the required phosphorous standard. The conflict continued. A headline stated 'City continues to balk at river clean-up', with the Council refusing 'to pay the \$40 million-\$50 million' to strip nutrients from the effluent, and the Regional Council's General Manager stating that 'there is no doubt about the outcome in 15 years. We will clean up the river.' He considered 'that the community at large finds such discharges abhorrent'.⁸⁵ The Regional Council's 1999 environment report, *Measures of a Changing Landscape*, once again raised the issues of pollution below the City's wastewater outfall and the effect of run-off from farms.

⁸² *Manawatu Evening Standard*, 21 June 1968, p.7.

⁸³ *Evening Standard*, 12 February 1987, p.2. The newspaper reports that on five occasions in 1986 raw sewage did escape into streets, via manholes.

⁸⁴ *Evening Standard*, 3 August 1995, p.1.

⁸⁵ *Evening Standard*, 31 August 1995, p.2.

The presence of the Minister for the Environment, Simon Upton, to launch the report indicated the national significance of such environmental matters.⁸⁶

In the event, with the City's consent to discharge waste to the Manawatu River expiring in 2006, the City Council embarked in late 1997 on a massive 'WasteWater 2006' (WW2006) project. Initial public consultation in 1996 had reinforced earlier comments about the community's 'abhorrence' of even treated sewage being discharged to the river, with land-based alternatives strongly supported. Not all councillors were impressed favourably with this response, with one claiming, 'The first round of consultation ... was captured by a "well-orchestrated programme" from the "self-interested, looney left"'.⁸⁷ Further investigation then indicated that land-based disposal was more expensive than previously thought⁸⁸ and required a great deal of land, with the winter water table being a limiting factor. Significantly, it also now seemed that it would be less expensive than previously thought to meet the water quality standards in the Regional Plan.

A Wastewater Community Liaison Group took seven options to the community – two 'all seasons' land options, three part Manawatu River/ part land options, and two solely Manawatu River options – all described in a widely distributed brochure.⁸⁹ The communities of interest in the project and the consultation extended to marae downstream of Palmerston North, to Foxton and Himatangi, and to neighbouring councils, while 'focus groups meetings [were] held with community groups from the recreation, education, scientific, environmental, business and manufacturing sectors'.⁹⁰ Both Foxton and Waiterere Beach were opposed to river-based discharge, which for Maori was also culturally offensive. However, Himatangi, the possible site of a land-based system, was vigorously opposed to that option, with 110 people at the

⁸⁶ *Evening Standard*, 23 June 1999, p.1. In launching this report Upton indicated the interest Government had in gaining information on environmental matters and being able to 'prove we are cleaning up our act' to enable New Zealand to keep 'selling our products overseas'.

⁸⁷ *Evening Standard*, 16 July 1999, p.1.

⁸⁸ *Evening Standard*, 13 July 1999, p.1. The initial consultation had indicated a cost of \$38.4 million. The 1999 costs for the two land-based options were up to \$76.3 million in sand country or \$52.2 million in river loam soils.

⁸⁹ Wastewater Community Liaison Group, *WasteWater 2006: Which Way From Here?* Palmerston North City Council, August 1999. This brochure described the seven options, with locations, costs, key features and key issues. It had a freepost tear-off page for responses.

⁹⁰ *Evening Standard*, 19 December 1998, p.7.

consultation meeting. Foxton had more than 70 at its meeting. The Wastewater Community Liaison Group report commented,

Foxton residents generally attach immense importance to the river and its water quality, and the Community Liaison Group sense that this stance is not well understood by the Palmerston North community.⁹¹

The Wastewater Community Liaison Group nevertheless recommended river discharge to the City Council, acknowledging, 'it may not go down well in Foxton and other downstream communities'.⁹² Overall returns from the consultation brochure had 52% favouring the river discharge and 48% a land-based system. The City Council decided on a river discharge option costing \$13 million, with ultraviolet light (UV) disinfection and phosphorous removal. It also agreed to a form of 'land passage' to the river, to be negotiated with affected marae.⁹³ The Ohu Marae Working Party was set up with representatives of seven downstream marae – Te Rangimarie, Motuiti, Poutu, Aorangi, Paranui, Kereru and Kauwhata. While remaining adamant that discharge to the river was unacceptable, enhancements that went some way to allaying concerns were agreed, including passage through a new wetland and then through a rock 'land passage' to the river with discharge spread over 50 metres.

The council's principal Maori officer Te Kenehi Teira, said the land passage and wetland pond had no scientific role. 'They are seen as being more culturally and spiritually acceptable than a direct discharge to the river because it is viewed by Maori that Papatuanuku (Mother Earth) has a cleansing effect on wastewater'.⁹⁴

The Council's final proposal also included commitment to a fisheries enhancement project, river and estuary research, reduction in ammonia levels and ongoing monitoring.⁹⁵ A Wastewater Monitoring Group with representatives from interested communities meets twice a year.

The resource consent hearing, by the Regional Council, in 2002, resulted in a 25-year discharge permit for the City Council. Two parties lodged appeals to the Environment Court, Christina and George Paton of Foxton and Bert Judd of Waitarere Beach.⁹⁶ The appeals were withdrawn, Bert Judd's at the last moment, when he reached an agreement

⁹¹ *Manawatu Evening Standard*, 29 January 2000, p.1, quoting from the report of the Wastewater Community Liaison Group.

⁹² *Manawatu Evening Standard*, 29 January 2000, p.1.

⁹³ *Manawatu Evening Standard*, 23 March 2000, p.3.

⁹⁴ *Manawatu Evening Standard*, 24 November 2000, p.3.

⁹⁵ *Manawatu Evening Standard*, 22 November 2000, p.1.

⁹⁶ *Manawatu Evening Standard*, 14 June 2002, p.1.

with the City and Regional Councils. The agreement included the organisation he represented, the Waitarere Environmental Care Association, being on the Wastewater Monitoring Group, and a review of 'treating and disposing options midway through the consent term'.⁹⁷

The City Council then commenced the upgrade and Stage I was opened in September 2004, with UV disinfection,⁹⁸ a wetland and then a rock 'land passage' leading to the outfall.⁹⁹ The phosphorous-stripping plant is scheduled to be completed in 2007. In late 2003 it was announced that the effluent from Linton Army Camp and Manawatu Prison would be piped to the Palmerston North treatment plant, a further move to reduce pollutants in the river.¹⁰⁰

Paradoxically, despite effluent discharge from the City reaching a higher standard than ever before, in 2006 concern over river pollution led to a Save Our River Campaign with protest action regarding processes of the Regional Council. The immediate catalyst was a permit granted to Fonterra Cooperative Group to discharge wastewater from their processing plant into the river, downstream of the City. Submitters from 18 environmental and health groups had opposed Fonterra's application.¹⁰¹ Subsequent action ranged from 'Save Our River' being superimposed on a sign advertising a new subdivision overlooking the river,¹⁰² to pamphlet distribution and a Saturday morning march and rally in October.

About 1000 people marched through the centre of Palmerston North today, protesting about the state of the Manawatu River. They say it is time businesses stopped pumping pollutants into the river.¹⁰³

The local newspaper stated that 'more than 200 people' marched'.¹⁰⁴ Protesters included people from outside the City, from downstream communities including the Waitarere Environmental Care Association, scientists, iwi representatives and politicians. The organiser of the march stated, 'It's the beginning of a three year

⁹⁷ *Manawatu Standard*, 6 May 2003, p.1.

⁹⁸ The UV disinfection process after having some initial problems has steadily increased in effectiveness.

⁹⁹ *Manawatu Standard*, 24 September 2004, p.3.

¹⁰⁰ *Manawatu Standard*, 6 November 2003, p.3.

¹⁰¹ *Manawatu Standard*, 5-6 August 2006, p.1.

¹⁰² 'Vaucluse' subdivision sign on Aokautere Drive, Palmerston North, mid-late 2006.

¹⁰³ NZCity, NewsTalkZB website, 14 October 2006, 'Manawatu River protests'.

¹⁰⁴ *Manawatu Standard*, 16 October 2006, p.1.

countdown. By 2010 we want no more discharges into the river.’¹⁰⁵ Environmental groups appealed the Regional Council’s decision to the Environment Court, but mediation resulted in an agreement that ‘Fonterra will reduce discharges into the Manawatu River and improve its effluent treatment’.¹⁰⁶

The greatest economic uses of the river, by Palmerston North, in the period 1941 to 2006 have been the extraction of gravel and the discharge of wastewater. These have involved private sector business and local government. Individual initiative has also led to economic benefit, albeit on a very small scale.

In the opening chapter brief mention was made of Peter Grey, a hermit who lived on the riverbank in the early 1900s. Others since then have also made their home, at least for a time, on or near the banks of the Manawatu River. In August 1981 Carl Joyce, with his dog Whiskey, had ‘been using a piece of sandy ground under the Fitzherbert Bridge ... as his base for a month’. When asked ‘if he was living there by choice or accident, Carl was quick to reply he had chosen to live under the bridge because he wanted to lead an “alternative” life’. He said he had been an industrial designer, a deer hunter and possum trapper and claimed, ‘I’ve always had a bit of gypsy in me. I like the challenge of not knowing when or where my next meal is coming from.’¹⁰⁷

Carl Joyce did not stay long living under the bridge, but Jim Walker lived in a tent near the river in the Te Matai area for four years, until 1995. He too had a dog, as well as a bike, and was ‘a familiar sight to many people in the area’. Although friendly, and knowledgeable about current events, he was very reticent about himself and little was known about him until he died, aged 57. He had lived on a sickness benefit since leaving his job as a mechanic because of a heart condition. He ‘came from a large close-knit family’, but had lost contact with them all and according to a cousin, ‘walked to the beat of a different drum’.¹⁰⁸ Carl Joyce and Jim Walker were very different people but both found some kind of refuge near the river.

¹⁰⁵ *ibid.*, p.1.

¹⁰⁶ *Manawatu Standard*, 14 February 2007, p.1.

¹⁰⁷ *Evening Standard*, 25 August 1981, p.35.

¹⁰⁸ *Evening Standard*, 2 December 1995, p.1.

In 2006 there were again reports of a man living in a damp, 'makeshift canvas and tarpaulin shelter', by the riverside walkway. A newspaper report called him 'Danny' and described aspects of his living arrangements, his weekly visits to 'town to get supplies' and the negative reactions of other people. A complaint about Danny to the City Council meant he had been asked to 'voluntarily move on', a request he apparently disregarded. There were no bylaws against 'sleeping rough at the river'.¹⁰⁹

For some adults the river has provided firewood, even in recent years.

There were a lot of dead trees on the stopbank that had been left there from the receding river. We bought an old pram and used to take the pram along the river gathering wood for our fires.¹¹⁰

With a golf course nearby, at least one elderly man gathered golf balls to sell and Doug Strachan reports that, as children 'we used to feel for golf balls in the long grass with our bare feet'. On one occasion, aided by the Strachan's fox terrier, they found 'dozens' for the old man.¹¹¹ Doug and his friends, growing up in the 1970s and 1980s, also earned money for themselves by selling lupin seeds to the Manawatu Catchment Board, for erosion control.

We would snap off spikes of ripe pods and stuff them into sacks. At home, we bashed the sacks to release the seeds. Then we spread out the pods on the concrete and walked up and down on them to get more seeds out. Finally we gathered the seed and poured it from one container to another, fanning away any remaining husk'.¹¹²

Conclusion:

From the earliest times of human habitation along the Lower Manawatu River it has provided resources for those inhabitants. The nature and utilisation of the resources have changed significantly over that time, not only as a result of European settlement and the development of Palmerston North, but also within the 130 years of Palmerston North's existence as a borough or city. The post-World War II period of rapid growth had a marked effect on how the City used the river as a resource for two major purposes – the extraction of gravel for the expanding construction industry and the depositing of

¹⁰⁹ *Manawatu Standard*, 8 July 2006, p.6.

¹¹⁰ Letter to Jill White, September 2005.

¹¹¹ Doug Strachan, copy to Jill White of article submitted to the *Manawatu Standard*, December 2005, p.2.

¹¹² Doug Strachan, p.1.

wastewater from the growing population – and contributed to dilemmas and conflict of interests.

Close proximity to a high quality gravel resource has been a great economic advantage to the City and to surrounding districts. Extraction processes, however, have interfered with the river channel and flow, leading to degradation of the riverbed in the City stretches of the river, with potentially adverse effects on flood protection measures. The 1941 Act gave limited powers to the Catchment Board to manage the extraction of the gravel resource, but it was the RMA in 1991 that gave the Regional Council an enhanced tool to attempt to balance the conflicting issues of access to a valuable resource and prevention of damage to flood protection works. Exploitation of the river's resource has increasingly been seen in a sustainability or conservation framework – not just of the gravel resource, but of the river itself and the City's flood protection structures.

The discharge of wastewater has also moved from a largely exploitive perspective to one of conservation of river water quality and some acknowledgement of the health, cultural and spiritual concerns of communities downstream of the City. The period of the study has included progressive upgrading of the treatment and the quality of wastewater discharged by the City to the Manawatu River. Nevertheless, unease and conflict remain about any discharge directly to the river. A 'Save Our River' campaign has arisen, with focus on the discharge consents granted by the Regional Council. The protesters come from a wide range of communities – iwi, Waitarere, scientists, political activists as well local people with a concern about the river.

There has been a significant change in values, both in the administering authorities and in the people of Palmerston North, through the period in question, from one of narrowly seeing the river as providing resources to be exploited, to one of increasingly seeing it as providing resources to be managed sustainably. There is also a growing acceptance that the perspectives of downstream communities must be respected. This is part of a wider consciousness within New Zealand of the need for conservation of natural resources.

Chapter Six: Conclusion: Turbulence and the River

We are in the midst of a change in attitude, where the river is becoming central to the City; and there are forces that may move it towards becoming pristine.¹

Through the period 1941 to 2006, the relationship of Palmerston North City with the Manawatu River has been one of conflicting interests and values, emanating out of the expansion and growth of Palmerston North on a floodplain, in a context of technological change on the one hand and growing concerns about conservation and the vulnerability of the environment on the other.

The various chapters show different facets of the conflict. The contest dealt with in Chapter Two has its roots in the nature of the river and the efforts to control that river. A tendency to flood was part of the history of the Manawatu River, and in so doing it cut off oxbows, replenished swamps and built up the Manawatu Plains. Since European settlement there have been increasing efforts to wrest the floodplain from the river's incursions and to use that land. The settlement of Palmerston North commenced on a clearing some distance from the river and above the menace of the river in flood. But a pattern emerged with the desire for more land to meet the needs of the growing City. A sophisticated flood protection system was built leading to a view that the river was controlled and the sense of security thus engendered encouraged more intensive development towards the river. There has then arisen the need for a higher level of protection for the extra investment, coupled with vigilance to maintain the integrity of stopbanks and other protective works. At the same time, the whole environment of the City remains at risk from an above-design flood.

The river has provided increasing recreational opportunity and contests over the use of river and riverbank have been a feature for much of this time. The new technology of jet boats, allowing the excitement of speed over formerly undisturbed river reaches, was in conflict with the interests that preferred a peaceful, quiet environment. From 1975 to 1990 the jet boaters were at odds with canoeing, fishing, acclimatisation and conservation organisations over speed restrictions on the Manawatu River. The battles were fought out and largely resolved, through the MRUA, an ad hoc, non-statutory body, which provided a meeting place for the river-user protagonists and an interface between civil society and local authorities.

¹ Merv Hancock, interview with Jill White, 12 September 2006, notes, p.2.

The bridle track/walkway on the riverbank was the scene of a different contest for the space. Developed for, and enthusiastically supported by horse riders and walkers, it was from time to time taken over by motorcyclists, causing physical damage to the track environment and threatening the safety and enjoyment of other users. There was no equivalent body to the MRUA for protagonist groups to confront the issues, which were in part age-related. Resolution of the conflict may just be about an activity going out of fashion, boy racers in motorcars on roads possibly taking over from the motorcyclists on the riverbank. An overt contest for the riverbank space has also been between generations. Children once had wilderness areas and played unsupervised, away from adult eyes. Adult and family groups have taken over enjoyment of the riverside spaces as the wilderness has given way to the defined walkway and open spaces.

Bridging the river has been a source of sharp conflict that has, at various times, involved local authorities, government departments, university and science institutions and local residents. The development of the Fitzherbert educational and research complex, the transition of Massey Agricultural College to an autonomous University, the growth in both the University population and in its importance to the City, together with the increasing use of the private motor vehicle, made one set of elements in the major conflict that emerged in the 1970s over the site of a bridge to meet the demands of the increasing cross-river traffic. These elements met head on with environmental and conservation concerns. Environmental issues included pollution from vehicle emissions and a perception of wasted mileage through the funnelling of traffic along Fitzherbert Avenue. The conservation issues were focussed around the iconic Esplanade and the trees in Fitzherbert Avenue. Chapter Four highlighted two major protest actions that arose out of these opposing value sets, 'Citizens' Initiative' and 'Save the Avenue'.

A key to the rise in the 1970s of C.I., with strong representation from the University and Science Centres, was that most staff and many students lived on one side of the river and worked on the other. They crossed the Fitzherbert Bridge every day, were articulate, determined and very aware of environmental issues. It is a paradox that the University growth was exacerbating the traffic environmental problems while providing the City with activists whose awareness, skills and contacts could rally protest action.

There were no winners in C. I.'s conflict with the Council and no new bridge until, for safety reasons, the 1935 Fitzherbert Bridge was replaced in 1987 with a bridge that was rapidly acknowledged to be inadequate to deal with the traffic flow. The City Council's determination to four-lane this bridge with consequential four-laning of Fitzherbert Avenue gave rise to the second protest group that very actively opposed Council. In spite of vigorous activity, Save the Avenue could not prevent the old plane trees in the Avenue being felled and replaced with younger trees closer to the kerb. The traffic flow to the Fitzherbert institutions and the rapidly developing suburb of Aokautere were greatly enhanced. Nevertheless the 'social catastrophe' concerns expressed in 1981 by the City Engineer, remain, in that urban Palmerston North is still dependent on the one bridge between Ashhurst and Opiki. This is also now relevant for the increasing residential population at Aokautere.

The use of the river for economic benefit is marked by ongoing conflict in interests and values. The exploitation of the river since European settlement has focussed principally on the gravel to be taken out and the waste to be deposited in the river. But environmental and conservation interests have increased over time, challenging the exploitation.

The challenge to liberal access to the gravel resource near the City has been in the effect on flood protection measures. While the gravel has been of great benefit to Palmerston North, its extraction has resulted in aggradation and degradation of parts of the riverbed. This in turn has affected carrying capacity of the river and flood protection structures. The interests of the construction industry and property developers have thus been in conflict with the primary responsibilities of those authorities charged with flood protection. The RMA has now enabled the Regional Council to work towards managing this issue more carefully.

Discharging wastewater to the river has been the practice of the Borough and the City for more than a century. Over that time treatment processes using sophisticated technology have been developed, but although health of those downstream of the City is no longer a reason for concern in relation to city wastewater, the practice remains offensive to several marae and the communities of Foxton and Waitarere. A further protest campaign has arisen to challenge the Regional Council in its management of the

Manawatu River. Save Our River differs from Citizen's Initiative and Save the Avenue in that it is primarily interested in the health of the Manawatu River itself and the conservation of species living in the river. This also relates to concern for the environment of communities downstream of the City, for both their health and recreational wellbeing.

Chapter One indicates that the City has not identified with its river as positively as have Wanganui, Hamilton and Christchurch. This exercise however, has shown pointers to change, as in the quote from Merv Hancock at the beginning of this chapter.

We are in the midst of a change in attitude, where the river is becoming central to the City; and there are forces that may move it to becoming pristine.²

The conflicts over bridges, increasing use of the walkway and debates over discharge of wastewater in the past ten years have brought the river further into the City's consciousness. The Save Our River campaign and concern for the environment of the Manawatu River itself is part of a changing relationship of the City with the river. Then too, the opening up of Aokautere has moved the location of the river in relation to the City. It is no longer on the edge of the City but is becoming nearer the centre.

According to Young and Foster the river has lost its mystique, it has become too civilised.³ It is clear though, as shown by the havoc wrought downstream of the City in 1992 and 2004, that the Manawatu River is not so 'civilised'. Furthermore the river has been a major focus for human turbulence, shown in efforts to control the river and contest its spaces, and in the conflicting interests and changing values that have emerged from 1941 to the present.

The words of Norman Whatman about the Manawatu landscape also encompass the relationship between the City and the Manawatu River.

...through them all the rivers which build and destroy, disrupt and unify.⁴

The Manawatu is such a river.

² Merv Hancock, interview notes, p.2.

³ See Chapter One, p.1.

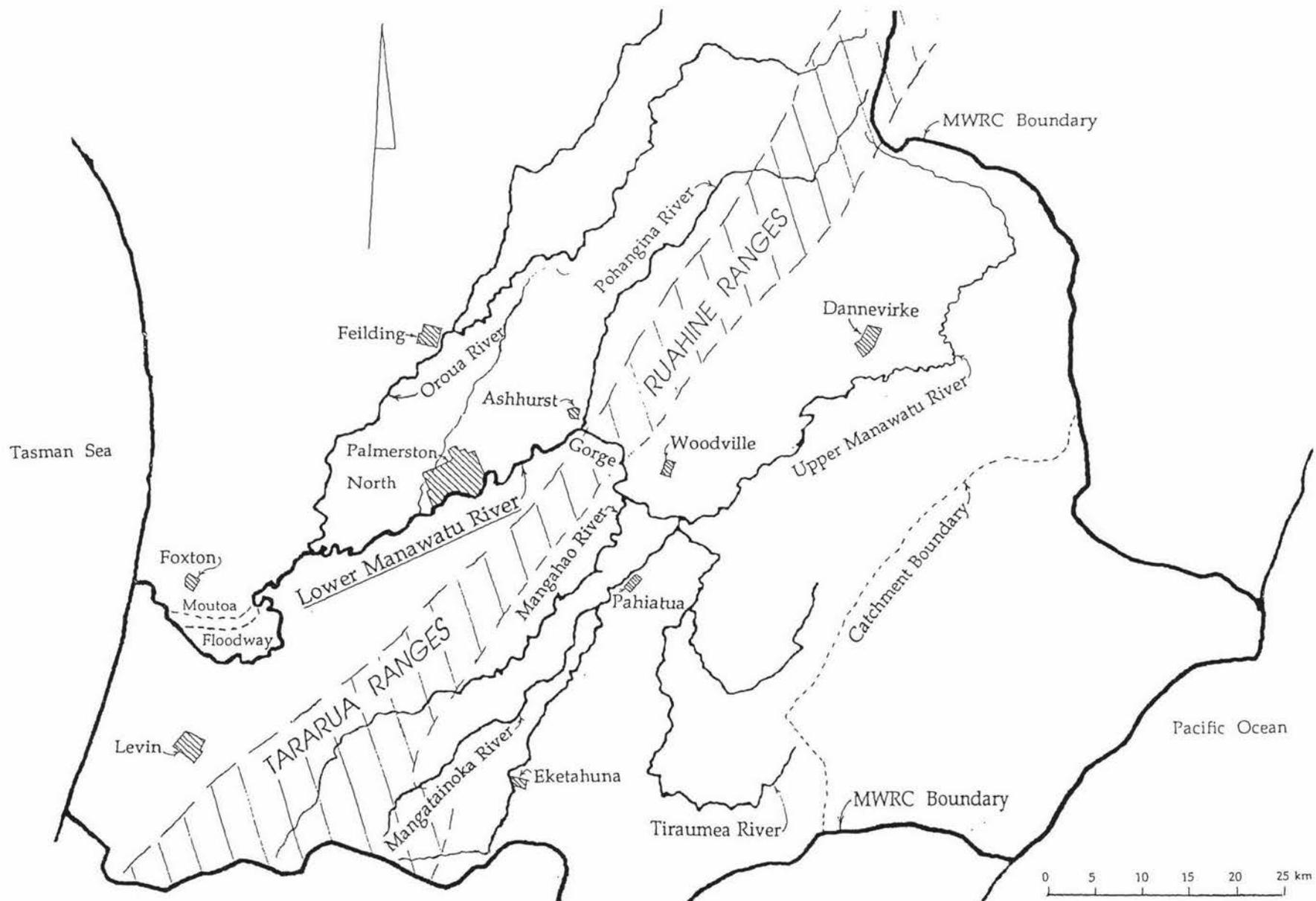
⁴ Norman Whatman, 'Landforms in the Manawatu', Introduction to G.C. Petersen, *Palmerston North: A Centennial History*, Wellington: A.H. & A.W. Reed, 1973, p.3.

Appendix I

Map 1. Manawatu River and Tributaries – from Manawatu-Wanganui Regional Council, *Lower Manawatu Scheme Review, Stage I: Ashhurst to Shirriff's Road*, Progress Report: December 1992 – by courtesy of Manawatu-Wanganui Regional Council.

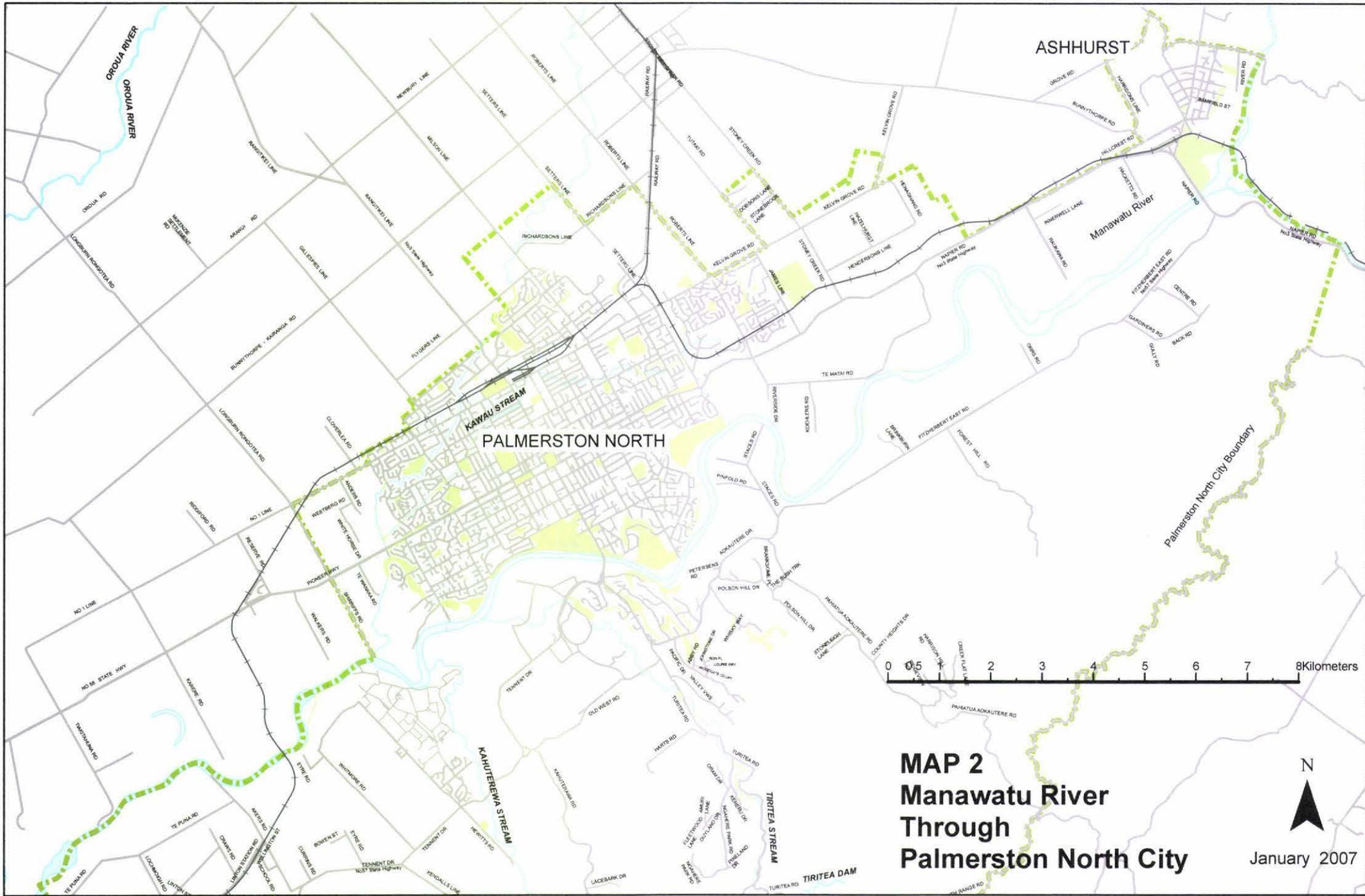
Map 2. Manawatu River Through Palmerston North City – by courtesy of Palmerston North City Council.

Map 3. City Flooding in 1941 and 1953 – from Brougham, G.G., McLennan, N.R., *An Assessment of Palmerston North City Flood Risks*, Manawatu Catchment Board Report No.69, 1986 – by courtesy of Manawatu-Wanganui Regional Council.



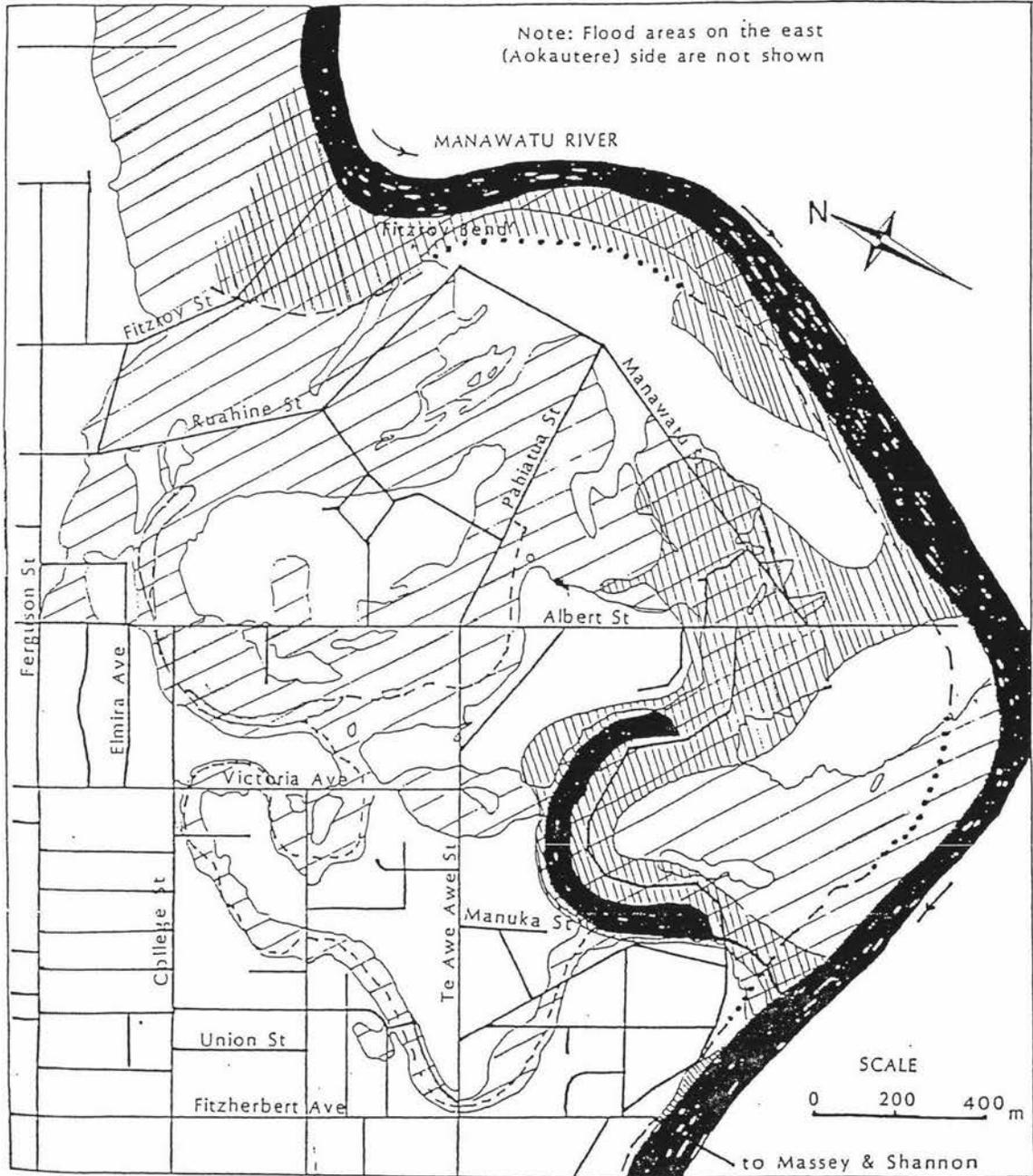
MAP 1 MANAWATU RIVER AND TRIBUTARIES

0 5 10 15 20 25 km
Scale 1:500,000



MAP 3 City Flooding in 1941 and 1953

derived from MCB plan 559



- KEY**
-  1941 flooding (prior to stopbanks)
note: dashed early, exposed drainage channels
 -  1953 flooding (some stopbanking)
note: stopbank line shown, 1951 raised sections dotted
 -  Streets
 -  Permanent waterway

Appendix II

Table 1.

Manawatu River: Ten largest recorded floods at Palmerston North, 1880 – 2004¹

Date	Ranking	Discharge (cumecs)	Stage* (metres)	Recorder
20 March 1880	1	4000	6.39	Fitzherbert
17 April 1887**	5	3300	5.93	Fitzherbert
14 June 1902	2	3800	6.39	Fitzherbert
18 July 1906	9	2613	5.36	Fitzherbert
2 May 1907	4	3340	6.24	Fitzherbert
5 May 1941	10	2605	5.86	Fitzherbert
28 Jan 1953	6	3176	6.51	Fitzherbert
18 March 1965	8	2744	5.94	Fitzherbert
23 July 1992	7	2830	8.16	College of Ed
19 Feb 2004	3	3502	8.92	College of Ed

* 'Stage' is the height above an arbitrary datum.

- NB. Stages for different floods are not always directly comparable as the 'zero' is set at or slightly below the deepest point on the river bed when the recorder is installed. The bed level can then change and frequently does.
- For the last 40 to 50 years the bed level has degraded. Before that it fluctuated.
- The more recent College of Education recorder (at Massey Hokowhitu Campus) has a much lower datum than the old Fitzherbert recorder.

** There is conflicting evidence about the 1897 flood. There is some indication that it was intermediate in size between the 1902 and 2004 floods.

¹ The information for this table has been supplied by Graham Doull, Senior Design Engineer, Horizons Regional Council, January 2007.

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