

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

HE TOKOTOKO MO NGA TANGATA

A thesis presented in partial fulfilment of the

requirements for the degree

of Master of Philosophy in Regional and Environmental

Planning at Massey University.

Clive Bruce Aim

Year 1992

ABSTRACT Aim, C.B. 1992. He Tokotoko Mo Nga Tangata. Thesis, MPhil. (REP)., Massey University.

THE PROBLEM

Urban river corridor areas are often subject to damaging use and to increasing pressure from conflicting uses. The main issue is the need to utilise the characteristics of a river and its margins within a city while integrating it into the city's life and preserving its ecological functions. The aim of the thesis is to develop a planning framework to address this issue. Information from various disciplines contribute to the River Corridor Planning Framework. The main areas researched are landscape aesthetics, ecology, recreation styles and public participation in planning. The study of landscape aesthetics reveals universally valued natural landscape features, and in part justifies concern for, and planning action in, river margin areas. The potential for river corridor areas to host significant ecological functions is shown in the ecological study, and brings an additional aspect to the urban planning situation. The significance of provision for informal recreation, the most common type, also influences the Planning Framework. Integral to the Planning Framework is a strong belief in, and justification of, the need to include public participation in all phases of the planning process.

The River Corridor Planning Framework developed is applied to part of the Whanganui River in the city of Wanganui, which is in some ways typical of medium sized cities with rivers in New Zealand. It is suggested that the River Corridor Planning Framework may have application in other cities with similar situations.

ACKNOWLEDGEMENTS

I would like to acknowledge the assistance I have received from a number of people, although they share no responsibility for any short coming in this work.

For their willing cooperation and assistance I thank the Wanganui District Council planning staff, the residents of Bedford and Balgownie Avenue, and enterprise representatives.

My thanks to Dr Johanna Rosier for giving form and structure to what was just an interesting idea.

The greatest debt of gratitude is to my family, who have sacrificed much on my behalf. I hope to return the favour.

CONTENTS

Abstract	ii
Acknowledgments	iii
Contents	iv
Lists of figures, maps and tables	v
1. INTRODUCTION	1
2. AESTHETICS AND ECOLOGY: DO THEY HAVE A ROLE?	9
3. FORM AND FUNCTIONS OF LINEAR RECREATION SPACE	22
4. PUBLIC PARTICIPATION: BEYOND CONSULTATION	38
5. THE RIVER CORRIDOR PLANNING FRAMEWORK	50
6. THE WHANGANUI CASE STUDY	58
7. CONCLUSION	84
APPENDIX	89
BIBLIOGRAPHY	91

List of Figures

Fig 1 Effect of shape on the nature of vegetation patches.	17
Fig 2 Typical variation between policy and reality in the allocation of land for informal / passive recreation (After Lavery 1971).	24
Fig 3 Walking routes from the centre of a simple grid.	32
Fig 4 The River Corridor Planning Framework.	52

List of Tables

Table 1 All Recreational Activities	27
Table 2 Frequency of Out of Home Activities	28
Table 3 Residents reactions to walkway proposal	70

Maps

	Following
Map A Case Study Setting : Wanganui	6
Map B WANGANUI	58
MAP I A,B,C Aesthetic, Natural and Historical	69
MAP II A,B,C Human Use and Constraints	72
MAP III A,B,C Proposals	79

CHAPTER ONE

INTRODUCTION

Chapter One sets out to define the planning problem and to give a brief introduction to the case study area.

It was the great American planner Olmsted who said about rivers in urban areas:

"Wherever in the world, as an incident of the highways and wharfs along its riverbanks, a city has provided opportunity for the people to walk and sit under pleasant conditions where they can watch the water and enjoy the life upon it, where they can enjoy the breadth of outlook and the sight of the open sky and the opposite bank and the reflections in the stream, the result has added to the comeliness of the city itself, the health and happiness of the people and their loyalty and local pride." (Olmsted 1910, quoted in Torre 1989).

Thus he expressed the simple pleasure people derive from proximity to rivers and their environs.

DEFINITION OF THE PROBLEM

Problem One

A river can be a major asset for an urban area, whether for its utility, amenity or image value. Unfortunately, because of this diversity of functions the river corridor is often heir to a legacy of neglect, abuse or unacceptable use, for example disused structures, sewage disposal, uncontrolled and unsightly reclamation. Attempts to give these areas a better fit between form

and desired use are hampered by the lack of an appropriate set of guide-lines for corrective action and for developing the full potential of the corridor to accommodate a variety of activities.

Objective One

The first objective of this thesis is to synthesize, from existing literature, a coherent set of guide-lines, in the form of a planning framework, for planning in urban river corridors.

Objective Two

As a basis for the planning framework a number of values and demands will be examined, related to a range of potential uses of river corridor areas.

Objective Three

The Framework will then be used to generate a concept plan for the development of part of the urban river bank area in the city of Wanganui.

Problem Two

In consequence of inappropriate use, there is often a high level of disregard for river corridors as potential recreation sites. General disregard may be expressed in illegal dumping, industrial encroachment and vandalism of any attempted improvements.

Objective Four

To investigate means of increasing public knowledge, awareness and interest, and of reducing damaging behaviour.

Problem Three

These types of area ie urban river margins, do not fit easily into any conventional urban design or open space category. They are not urban parks, sports grounds or play grounds, as they do not possess the formality or compactness of any of these. Neither are they rural or wilderness reserves, or tramping trails, as they are imbedded in urban settings, and yet are not part of the

structure of urban parks. They are also not usually derelict urban areas in the normally accepted sense of the term, nor cases of the need for the separation of pedestrians from automotive traffic. Therefore there is no existing single set of literature or knowledge which can be easily applied in the planning of such areas.

Objective Five

To determine the potential functions of each class of area, defined in an analysis of all the possible values.

Problem Four

The ecological functions of urban river margins tend to have suffered severe impacts from human activities. There is also competition between various activities and functions. There is therefore a need to reach acceptable compromises between these demands.

Objective Six

To examine the ecological potential of urban river margins, and to determine the measures required to enable such potential to be realised, in the context of coexisting uses.

In meeting these objectives a range of relevant literature will be reviewed. Studies of landscape aesthetics, recreational demand, and the potential for public participation in planning and design will be included. Literature relating to ecology in urban areas will also be reviewed.

ASSUMPTIONS

Assumption 1

This is not an urban design project. However, a generalised planning framework will be useful in acting as a frame of reference for future development of river corridors so that a range of objectives can be met.

The derived framework will be a strategic and conceptual brief which may be used by designers, rather than a detailed plan for development landscaping. The objective here will be to provide

the criteria appropriate for environmentally sensitive planning in urban settings where a wide range of values need to be accommodated. The detailed design of each part of a river margin should be generated later by a team including a landscape architect, an engineer and others (Lancaster 1983). Therefore, maps indicate spatially, the values that need to be considered in each part of a project, not detailed paths, structures and landscape design.

Assumption 2

The development of such general frameworks is best carried out at a local level of planning because building and subdivision rules are developed at that level. The written criteria are intended as a check-list for the planning team.

Section 31 of the Resource Management Act 1991 (RMA) sets out as functions of territorial authorities

- "(b) The control of any actual or potential effects of the use, development, or protection of land, including the implementation of rules for the avoidance or mitigation of natural hazards and the prevention and mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances:
- (c) The control of subdivision of land:"

The framework may also provide guidance up to Regional Council about local concerns for the river and across river/land boundaries eg views, water quality, bank stability. These Regional Council functions are set out in Section 30 (RMA).

Assumption 3

An important part of any planning and design framework is to provide guidance about the process of achieving a satisfactory fit between people's behaviour and the facilities being planned (Lynch 1981).

It is therefore necessary to examine the preferences that people have, both in what they do and what they enjoy looking at or being part of. This needs to include nearby residents, the wider population of the city, and visitors to the city. This work will provide criteria upon which a design

team can build at a local level.

WIDER APPLICATION

The matters covered in this thesis should have application elsewhere in that there are other towns and small cities built around rivers and with similar problems of inappropriate and conflicting land use in corridors. There are also areas with a similar linearity and general conditions, such as former or low use railway lines, which could be dealt with in similar manner. The planning of such areas in an ecological manner lacks a guiding framework which can order action and provide a check-list of issues and strategies to be considered. Especially lacking are considerations of aesthetic values, ecological potential and the particular recreational role of river margin or linear areas.

METHODOLOGY

A wide range of literature with relevance to the use and development of river corridors is reviewed. A particular focus of the review is to cover aspects which are often not considered legitimate concerns of the planning process, such as aesthetics, ecology, informal recreation and public participation in planning. The findings of the review are then used to develop the River Corridor Planning Framework, based on Lang's (1986) integrated planning process. The Framework is then applied to the Whanganui River in part of Wanganui City.

THE CASE STUDY SETTING IN BRIEF

The Whanganui River provides a suitable case study for testing the applicability of the River Corridor Planning Framework. Although singular, the city is not unique, in that it exhibits characteristics common to settlements of similar size elsewhere in New Zealand, particularly the possession of unresolved urban environmental issues which have not been treated in any systematic manner.

The city of Wanganui has a population of about 40 000, having experienced its major growth in the early and post-war part of this century (Wanganui City District Scheme 1989, Ross 1968).

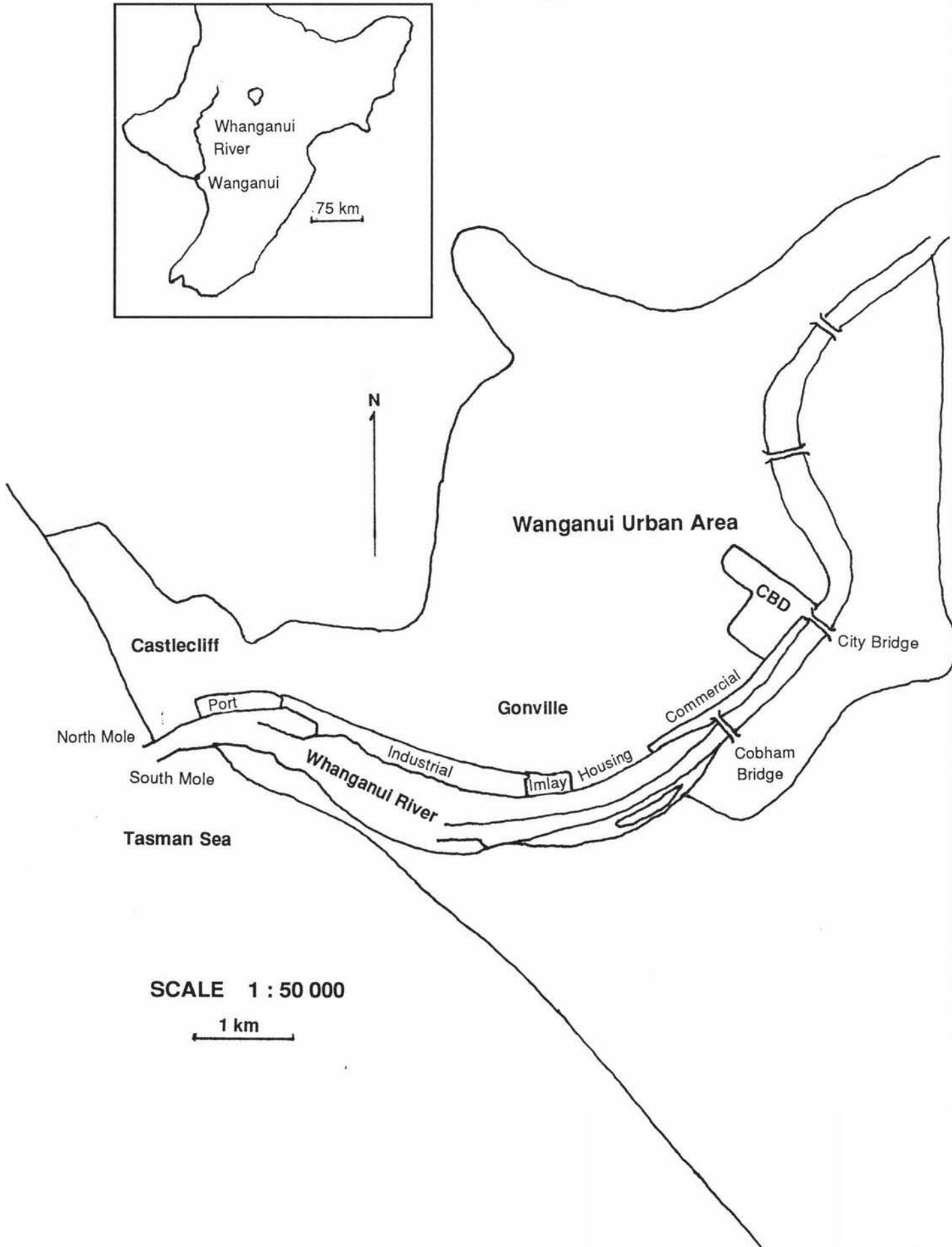
Generally slow but steady population growth has been a feature of the last twenty years. The Whanganui River flows through the heart of the city, (see Map A following) and the city is strongly identified with it - hence, the "River City" slogan.

[NB: The spelling of the river's name was officially changed from Wanganui to Whanganui in 1991] Approaching its discharge point into the Tasman Sea the river widens into a narrow estuary. The banks of the river have experienced varying degrees, types and qualities of development, including transportational, industrial, residential and recreational.

By New Zealand standards, the Whanganui is a large river with a moderately sized settlement built on its lowest reaches. Since its earliest years as a European settlement raw sewage has been discharged directly into the river, culminating in the present 59 discharge points. In the study area the predominant land use has been industrial, followed by waste land and a small but significant older residential area. The combination of contamination and separation from major residential areas has resulted in much of the immediate river bank area in this part of the city being either ignored or neglected by the bulk of the population. The present sewage loading is a documented factor limiting use of the river area (Wanganui Wastewater Working Party Community Survey Final Report 1990).

In recent years, there has been renewed interest in the condition of the Whanganui river and its environs, initially focusing on the issue of sewage discharges. Cleaning up the river was recently rated by the public as the District Council's number one priority (Wanganui District Annual Plan 1992). Under the scheme approved by the Manawatu - Wanganui Regional Council in 1992, the present high sewage loading of the river will be discontinued within three years (1996), except for periods of moderate to high rainfall. Within a maximum of 15 years there should be no sewage discharges to the river at any time. This environmental upgrading should be followed by greater use of the river and its margins. Concurrent with increased environmental awareness there is also increased awareness of the role of exercise in the maintenance of good health. Walking is commonly recognised as beneficial to both physical and mental health.

Case Study Setting: Wanganui



These two trends together point to an increased demand for the river bank area to be developed in such a way as to make it more suitable for use for informal recreation activities such as walking and watching, while enhancing its environmental value. This view is supported by Dr P O'Connor, Medical Officer of Health, Wanganui.

"When the proposed (sewerage) scheme is implemented, the Whanganui will be biologically safe for recreational use. Equally importantly, there will be a public perception that we have full access to river and beach waters; and we will have respect for those waters.

Both our biological and social health will be enhanced." (O'Connor 1990).

In terms of recreational potential, the river corridor's linearity is its main feature, thus its greatest potential is probably as a location for a trail complex, but it also has nodes possibly suitable for opening out into small informal recreation areas. At the city end it is easily linked to the main area of retail activity and an area undergoing development as a heritage area. At the seaward end there are port related activities and several active recreation opportunities. Thus there are characteristics of trail, both natural and heritage, and park, but not in the usual discrete well bounded sense.

In dealing with planning problems in areas of this nature several objections typically arise from either the public or their local authority representatives. One objection is that aesthetics is an irrelevant extra, of interest only to some educated elite; another is that urban dwellers either have little interest in contact with the natural world or have this interest satisfied in their home environment, conventional parks or non - urban settings. Another common assertion is that public participation in planning processes is more trouble than it is worth, and that plan outcomes are seldom significantly different from those produced by professional planners and designers working from their own experience. The literature to be reviewed seeks to clarify the nature of the above planning considerations and their significance to the planning process, and thus identify their role in the appropriate planning framework. It is in the context of smaller cities, in

possession of possibly significant but neglected rivers, in periods of re-evaluation, that this thesis is set.

o o O o o